NEVADA STATE BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS

Interim Board Meeting
December 11, 2025
Virtual

1. Meeting Call to Order

2. Public Comment

3. NRS 625
Waiver Requests

WAIVER REQUESTS
Thursday, December 11, 2025

APPLICANTS REQUESTING WAIVER OF NRS 625.183(4)(B)			
NAME	**DISCIPLINE**	**TO:**	**GRANT?**
1. Joshua Knighton	EE	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): ABET/CAC accredited	4	4
Undergraduate (BS): ABET/ANSAC accredited	4	4
Undergraduate (BS Engineering): ABET equivalent ie Washington Accord	4	4
Undergraduate (BS Engineering): Not ABET accredited	4	6
Undergraduate (BS Construction Management): ABET accredited	4	4
Undergraduate (BS Construction Management): Not ABET accredited	4	6
Undergraduate (BS Engineering): not ABET equivalent	2	8
Engineering Masters: US with non-accredited BS/MS	6	2
Engineering Masters & Doctorate: US with non-accredited BS/MS	6	2
ABET engineering degree in specific discipline – experience and/or exam in another discipline	4	4

*Special Consideration – deficiencies to be reviewed by the Board.

Civil

JEREMIAH ACOSTA (21-441-12)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
11/05/2025

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
4 years, 3 months

Total Engineering Experience
4 years, 3 months

Experience under licensed engineer
3 years, 10 months

Disciplinary Action
None reported

EDUCATION

Bachelors in Civil Engineering (EAC)
University of Nevada, Las Vegas
August 2017–December 2020

EXAMS

Fundamentals of Engineering (FE)
Nevada
May 2021

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

LICENSES

Additional Licenses
None

JEREMIAH ACOSTA (21-441-12)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Utility Services
Nevada (United States)
Engineering Intern
May 2021—October 2021

Verified by
Lance M Olson
Lance.Olson@cityofhenderson.com

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

TASKS

I was a civil engineering intern for Nevada's state water distributor, responsible for developing water system projects and Preliminary Engineering Reports (PERs) for groundwater-reliant public water systems. I ensured compliance with EPA water quality testing requirements and Southern Nevada Health District standards. If a water system was found non-compliant, I developed a plan of action to get the water system back into compliance. I also took charge of answering any inquiries public water system customers had, coordinating with field workers on work that was necessary to be done, and purchasing materials for projects.

REPRESENTATIVE PROJECTS

Shoshone water system Preliminary Engineering Report (PER) | Shoshone, Nevada | (May 2021 - Oct 2021)
- I prepared a PER for addressing arsenic issues for the water community
- I prepared engineered drawings and plans of the location of the subject area
- I evaluated the feasibility of the project and addressed any potential problems
- The report I created included comprehensive sections on project planning, existing facilities, the need for the project, alternatives considered, selection of an alternative, the proposed project, and final conclusions and recommendations
- I created a cost estimate for the project

JEREMIAH ACOSTA (21-441-12)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

GCW
Nevada (United States)
Engineering Intern
November 2021—October 2024

Verified by
Alexander Santelices Santiago
ASantiago@gcwengineering.com

Experience Summary
Full-Time
Engineering: 2 years, 11 months
Post EAC degree: 2 years, 11 months
Experience under licensed engineer: 2 years, 6 months

TASKS

Engineering Intern for the Summerlin/Airport group at GCW. Primary responsibilities included providing engineering support through the preparation of improvement plans, exhibits, utility research, cost estimates, calculations, and other land development-related tasks. Projects included parks, roadways, residential communities, commercial lots, and detention basins. All design work was completed using AutoCAD covering utilities, grading, vertical curves, asphalt thickness, striping and signage, traffic lights, and traffic signals.

Key responsibilities:

- Prepared exhibits, reports, and improvement plans for clients
- Performed engineering calculations for cost estimates, volumes, flow rates, elevations, and more
- Coordinated with project managers and other departments to successfully complete projects

REPRESENTATIVE PROJECTS

Kettle bend extension roadway project l Las Vegas, Nevada l (2022-2023)
Project scope: Roadway project that spans 1 mile between Kettle Bend and Lake Mead. Project consisted of a roadway, utilities, grading, driveways, medians, striping, and traffic signals.
- Lead engineering intern for project
- I created and decided all utility locations such as water, storm drain, and sewer pipes for the roadway
- I did the grading and site layout for the project
- I created all engineered plan sheets using AutoCAD
- I created the cost estimate for the project

Summerlin Studios (Sony) 30% Civil Improvement plans l Las Vegas, Nevada l (2023-2024)
Project scope: Create an improvement plan in order to calculate an approximate cost and bring plans before congress for tax purposes. Summerlin Studios consisted of 10 sound stages and offices spanning 31 acres.
- Lead engineering intern for project
- I designed the preliminary grading for the project and ensured that all water was collected and sent offsite properly
- I created and drew out all utilities for project. Complied with local state standards for utility clearances and requirements
- I created exhibits as needed
- I created the cost estimate for Civil improvements of the project

Southern Nevada Supplemental Airport (SNSA) Feasibility study l Las Vegas, Nevada l (2023-2024)
Project scope: Update the feasibility study from the previous 2008 study to a current 2024 study. Main sections I was in charge of was the utility sections and drainage sections.
- I updated all 15+ exhibits on ArcGIS Pro pertaining to how the new airport will receive all utilities. I also updated the write up to reflect 2024 conditions and highlighted any engineering constraints on the project.
- I did the preliminary grading on AutoCAD for the SNSA detention basin which includes over 31 million cubic yards of cut.
- I updated all 10+ exhibits on ArcGIS pro on how the drainage for the SNSA area would work. Showed all flood zones and mitigation techniques.

WORK EXPERIENCE

City of Las Vegas
Nevada (United States)
Engineering Associate
November 2024—October 2025

Verified by
Dominic Panaligan
dpanaligan@LasVegasNevada.GOV

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

TASKS

Engineering Associate for the City of Las Vegas Sanitary Sewer Engineering Group. Tasks and duties include plan reviews, sewer ArcGIS pro updates, and taking lead of the temporary flow monitoring program.

Key responsibilities
- Review plans in a timely manner
- Update the Sewer GIS layers as needed and give accurate information to any request
- Deploy our temporary flow monitor to different parts of the city as needed. I also analyzed the flow monitor data and extracted the pertinent flow data needed for the team

REPRESENTATIVE PROJECTS

Sewer GIS data management I Las Vegas, Nevada, I 2024-2025
Project Scope: Update and manage the sewer database on ArcGIS Pro. Create a digital reference of any new sewer that gets included into the sewer system. Update the system as needed.
- I digitized hundreds of new plan sets that are added to the sewer system of the city
- I handled any records request that came in and I provide the proper records

Sanitary Sewer Plan Reviews I Las Vegas, Nevada I 2024-2025
Project Scope: Review plans that was submitted that are within the City of Las Vegas jurisdiction. The main element of the plans under review are the Sanitary Sewer lines and relevant notes.
- I reviewed the sewer lines and manholes being installed and ensured that it complied to all standards set by the City
- I reviewed multiple plans per week and decided if the City will approve or deny their plans
- I gave guidance/recommendations on what the sewer code requires/allows and what fixes can be made

ADDITIONAL INFORMATION

TIME GAPS

Start Date	End Date	Explanation
May 2014	July 2017	Started out in College at University of Guam. Took general education classes before transferring to UNLV.

NAPHTHALI ALINSOD (21-263-79)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
12/01/2025

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
4 years

Total Engineering Experience
4 years

Experience under licensed engineer
3 years, 4 months

Disciplinary Action
None reported

EDUCATION

Bachelors in Civil Engineering (EAC)
University of Illinois, Urbana Champaign
August 2017–May 2021

EXAMS

Fundamentals of Engineering (FE)
California
July 2021

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

LICENSES

Additional Licenses
None

NAPHTHALI ALINSOD (21-263-79)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

GeoTek USA
Nevada (United States)
Staff Professional
October 2021—October 2022

Verified by
Harvey Walker McHugh
hmchugh@geotekusa.com

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

TASKS

I dispatched field inspectors based on project schedules. During inspections I reviewed engineering plans to confirm concrete slump requirements, post-tension tendon counts, reinforcement placement, and cover dimensions. During concrete placement inspections I evaluated concrete consolidation and directed the use of internal vibration in areas requiring improved compaction. I conducted laboratory testing of soil samples to verify soil classification, compaction and moisture-density characteristics. In reviewing inspection reports, I calculated the average 28-day concrete compressive strength from the collected samples and confirmed compliance with the design strength criteria in the engineering plans.

REPRESENTATIVE PROJECTS

Geotechnical
Cadence Master Planned Community; Geotechnical Analysis and Construction Inspection
Dates: October 2021 - October 2022

I worked on a team of inspectors and engineers that focused on geotechnical analysis and inspections of the Cadence master planned community in the City of Henderson. I reviewed and compiled inspection reports for submission to the City of Henderson. I provided construction inspection and oversight of engineering works.

NAPHTHALI ALINSOD (21-263-79)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Bureau of Reclamation
Nevada (United States)
Civil Engineer
November 2022—March 2025

Verified by
Noe Isaac Santos
nsantos@usbr.gov

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

TASKS

I evaluated and analyzed market energy prices, turbine outages, downstream boater safety, special request flows for downstream construction and other events to best design hourly release schedules. I closely monitored and managed elevations of Hoover, Parker, and Davis Dams by setting monthly elevation targets. I reviewed engineering planning of turbine outage schedules. I designed RiverWare policy language code to account for Mexico System Conservation agreements and to address Nevada Intentionally Created Surplus (ICS) accounting bugs in the 24-Month Study RiverWare Model. I designed dashboards containing critical data for ease of access in making and evaluating operational decisions. I met with stakeholders to communicate the current status of the Lower Colorado River Basin water supply and forecasts of future water supply.

REPRESENTATIVE PROJECTS

Water Delivery
24-Month Study and Water Scheduling
Dates: November 2022 - March 2025

I was part of a team that modeled short term and mid-term projections for the Lower Colorado Basin which supplies water for over 40 million people. My job was to schedule the daily and hourly release of water from all 375MW of the Parker and Davis Dam powerhouses. I also modeled 24-Month and 5-year projections of Lake Mead, Mohave, and Havasu for the Lower Colorado River Basin water supply.

Water Treatment
Research: Recent Advancements in Selenium Treatment Technologies and Application to Playa Wetlands (S&T Project ST-2024-22066)
Dates: January 2023 - March 2025

I was the Principal Investigator for a Science and Technology report evaluating emerging selenium remediation technologies and how each technology would be implemented at the Salton Sea. I designed several methods of potential site implementation after analyzing agricultural drainage canals and playa wetland site conditions. I conducted engineering analysis of various bioreactors and constructed wetlands configurations to recommend which technologies would be most viable considering cost, scalability, and effectiveness at remediation.

WORK EXPERIENCE

Colorado River Commission of Nevada
Nevada (United States)
Assistant Hydropower Program Manager
April 2025—December 2025

Verified by
Gail A Bates
gbates@crc.nv.gov

Experience Summary
Full-Time
Engineering: 8 months
Post EAC degree: 8 months
Experience under licensed engineer: None

TASKS

I reviewed capital improvement and rehabilitation work plans for Hoover, Davis, and Parker Dams as part of the Engineering and Oversight technical evaluation process. This included assessing the engineering basis, cost estimates, construction methods, and schedule impacts to verify that proposed work maintained hydropower generation reliability and operational performance requirements. I trained staff to use the Bureau of Reclamation's 24-Month Study hydrologic model and instructed them on modifying model inputs to evaluate alternative hydrologic conditions, outage schedules, and operational constraints. I developed and maintained a forecasting database to track energy and capacity allocations, hydrologic conditions, and resource availability for use in system planning, rate development, and future hydropower re-marketing activities.

REPRESENTATIVE PROJECTS

Resource Planning
Post 2028 Parker-Davis Re-Marketing
Dates: April 2025 - October 2025

I evaluated 14 applications for post-2028 allocations of Parker-Davis Project hydropower through the State of Nevada. I analyzed historical load data, peak demand, and calculated energy/capacity forecasts for each applicant to develop allocation recommendations from CRCNV's 56 MW Parker-Davis entitlement. I assessed resource portfolio diversity, load growth trends, and capacity adequacy to support equitable hydropower distribution.

JORGE ALVAREZ (17-448-55)

All work experience reviewed by two licensed professionals

DISICPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
11/06/2025

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
4 years, 7 months

Total Engineering Experience
4 years, 7 months

Experience under licensed engineer
4 years, 7 months

Other Experience

Disciplinary Action
None reported

EDUCATION

Bachelors in Civil Engineering (EAC)
California State Polytechnic University, Pomona
September 2012–June 2017

EXAMS

Fundamentals of Engineering (FE)
California
June 2017

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

LICENSES

Additional Licenses
None

JORGE ALVAREZ (17-448-55)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Valley Joist
Nevada (United States)
Staff Engineer
April 2018—December 2021

Verified by
Walter Worthley
wworthley@valleyjoist.com

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

DESCRIPTION

JORGE ALVAREZ (17-448-55)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Ashley and Vance Engineering, Inc.
Nevada (United States)
Design Engineer
January 2021—August 2025

Verified by
Jordan Denio
jordan@ashleyvance.com

Experience Summary
Full-Time
Engineering: 4 years, 7 months
Post EAC degree: 4 years, 7 months
Experience under licensed engineer: 4 years, 7 months

TASKS

4.5 years of experience as a Design/Project Engineer. Worked under Jordan Denio the principle engineer for the Reno office. Worked on the production of structural plans and calculations for county permit submittal for various types of projects.

REPRESENTATIVE PROJECTS

Pesapane Residence in Zephyr Cove, NV, between April 2025 to July 2025. I designed a three-story wood structure consisting of wood and steel members to support the gravity and lateral loads. Lateral design consisted of a mix of wood diaphragm, shearwalls and steel cantilevered columns to help resist the seismic forces in the area. I calculated foundation and retaining wall elements per code as the structure was tucked into a cliff.

Woollys Conveyor Structure in Mammoth Lakes, CA between June 2022 to July 2022. I designed an inverted pendulum steel structure on a raft foundation to support a premanufactured Tubing conveyor belt for the Mammoth Mountain Ski Area resort. I calculated the steel elements for the gravity and lateral forces induced from the snow, dead and live load forces from the conveyor belt mounted on top. At the top end I calculated a 6-8' 3-sided retaining wall structure to catch snow brought in from the conveyor belt. I designed intricate steel connections to anchor the steel structure against seismic forces.

South Lake Tahoe High School Roof Repair, in South Lake Tahoe CA. The project went from the middle of 2023 into 2024. I designed new joists, posts and foundations for a snow damaged roof. Calculated members for current snow parameters including unbalanced and sliding snow effects from a higher roof which caused the damage. The project was submitted for DSA approval and therefore effective communication was required on my part to help complete the project in a timely manner.

ANTHONY ANASON (19-172-59)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
11/06/2025

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
6 years, 5 months

Total Engineering Experience
6 years, 5 months

Experience under licensed engineer
6 years, 5 months

Disciplinary Action
None reported

ABET EAC

FE EXAM

PE EXAM

4+

EDUCATION

Bachelors in Mechanical Engineering (EAC)
Michigan State University
August 2014–May 2019

EXAMS

Fundamentals of Engineering (FE)
Michigan PE
November 2018

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

LICENSES

Additional Licenses
None

ANTHONY ANASON (19-172-59)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

United State Navy
California (United States)
Construction Manager
June 2019—November 2025

Verified by
Daniel Brian Pulliam
daniel.b.pulliam.mil@us.navy.mil

Experience Summary
Full-Time
Engineering: 6 years, 5 months
Post EAC degree: 6 years, 5 months
Experience under licensed engineer: 6 years, 5 months

TASKS

Position 1: Construction Manager, China Lake Naval Weapon Station (2020 - 2022)
I calculated concrete mix designs to ensure they met project specifications for strength and durability. I reviewed and approved contractor submittals for various materials such as electrical components, scaffolding, pavements, etc. I ensured all materials complied with ASTM and UFC standards. I evaluated the compaction testing results of the subgrade to ensure it met the requirements. I ensured project quality control.

Position 2: Project Engineer, Naval Mobile Construction Battalion 5 (2022 - 2024)
I surveyed project sites prior to design and construction. I designed the drainage and concrete replacement to existing roads and got it approved by the appropriate PE authority. While deployed in the Pacific, I sized drainage culverts for an existing inclined road, calculating runoff coefficients and determining required flow capacities. I reviewed Pre-engineered building shop drawings for conformance with the UFC requirements. I performed site reconnaissance and testing of soil samples to classify soils in the Unified Soil Classification System to ensure the foundation stability. I performed slump testing for concrete foundations, slab on grade, and road gutter placements. I verified slope trenching for excavations after confirmed the soil type being dug into. Finally, I provided off-island leadership necessary design change options when they arose. I ensured project quality control.

Position 3: Project Manager, Naval Postgraduate School (2025 - Present)
As project manager, I reviewed architectural design drawing for compliance with UFC requirements. I analyzed all submitted civil designs pertaining to the project commenting and suggesting changes where necessary.

NOTE: Gap from 2024 – 2025, I was an aide to an Admiral performing purely administrative and military tasks.

REPRESENTATIVE PROJECTS

Project 1: Runway Extension Project, China Lake Naval Air Weapons Station (2020 – 2022)
This project involved extending Runway 08/26 to meet updated standards for high-performance fixed-wing aircraft. The scope encompassed all civil engineering aspects of the extension. I reviewed and approved contractor submittals for various materials such as electrical components, scaffolding, pavements, etc. I ensured all materials complied with ASTM and UFC standards. I evaluated the compaction testing results of the subgrade to ensure it met the requirements. I ensured project quality control.

Project 2: Commercial Road Repair, Navy Auxiliary Landing Field San Clemente Island (2022)
This project was to repair a 300-foot section of a commercial road providing access to the airstrip. The project addressed extensive grading, paving, and drainage deficiencies. I surveyed the project site prior to design and construction. I created the demolition plan. I designed the drainage system and concrete replacement for the existing road, and I secured approval from the appropriate PE authority. Considerations for the road included considering anticipated vehicle loads and soil bearing capacity, I researched the anticipated road traffic and ensured the design met the requirements. I assisted the team in the placing of the concrete reinforcement rebar for the road ensuring proper spacing. I oversaw the placing of the concrete via an all-in-one concrete pumping truck. After completion I surveyed the road and ensured that it satisfied the design requirements. I ensured project quality control.

Project 3: Road Paving, Commonwealth of the Northern Mariana Islands (2023-2024)
This project focused on repairing a residential roadway. I surveyed the project site prior to design and construction. I performed site reconnaissance and testing of soil samples to classify soils according to the Unified Soil Classification System. I sized the drainage culverts for the road network drainage system, calculating runoff coefficients and determining required flow capacities given the peak rainy season in the Marianas. During construction I verified the slope trenching for excavations, confirming the soil type being dug into aligned with the geotechnical report. I performed slump testing for concrete used in road gutter placements,

verifying consistency and workability. I recommended changes to the site grading plan to improve drainage and minimize erosion. I provided off-island leadership with necessary design change options when they arose altering the design through a PE Authority when the situation occurred. I ensured project quality control.

Project 4: PEB Construction, Commonwealth of the Northern Mariana Islands (2023-2024)
On the North Side of Tinian, away from the town the Navy wants to rebuild the WW2 runways. This project was intended to support that effort with a place to house construction equipment outside of the elements. I surveyed the project site prior to design and construction. I reviewed PEB shop drawings for conformance with the UFC requirements, referencing applicable sections. I calculated the dimensions and reinforcement requirements for the concrete foundation, considering soil bearing capacity and anticipated loads, using ACI 318 guidelines. I performed slump testing for concrete used in the foundations and slab-on-grade, verifying consistency and workability. I verified the anchor bolts for both angle and strength. I oversaw the crane lifts for each of the steel columns and ensured anchor bolts were appropriated tightened to the required strength. I ensured project quality control.

Project 5: Halligan Hall Renovation, Naval Postgraduate School (2025 - Present)
Located at the Naval Postgraduate School on the Monterey Peninsula, this project encompasses the comprehensive renovation of Halligan Hall, a building constructed in 1954. A key component is the construction of two PEB swing spaces to house occupants during the renovation. I assisted in the civil design for the two PEB swing spaces, including site grading, drainage, and utility layouts. I calculated the earthwork quantities for the site grading, determining the cut and fill volumes required to achieve the desired elevations for the PEB foundations and surrounding areas. I designed the layout of the concrete sidewalks around the PEBs, ensuring pedestrian safety and accessibility. I designed the asphalt pavements for the parking areas and loading docks serving the PEBs, considering anticipated traffic loads and soil bearing capacity.

JACKSON BEADELL (20-716-46)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
11/06/2025

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
5 years, 11 months

Total Engineering Experience
6 years, 6 months

Experience under licensed engineer
6 years, 6 months

Disciplinary Action
None reported

ABET EAC

FE EXAM

PE EXAM

4+

EDUCATION

Bachelors in Geological Engineering (EAC)
University of Nevada, Reno
August 2015–December 2019

EXAMS

Fundamentals of Engineering (FE)
Nevada
October 2021

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

LICENSES

Additional Licenses
None

JACKSON BEADELL (20-716-46)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Wood Rodgers, Inc.
Nevada (United States)
Assistant Engineer
May 2019—November 2025

Verified by
Justin Michael McDougal
jmcdougal@woodrodgers.com

Experience Summary
Full-Time
Engineering: 6 years, 6 months
Post EAC degree: 5 years, 11 months
Experience under licensed engineer: 6 years, 6 months

TASKS

Company: Wood Rodgers, Inc.
Title: Geotechnical Intern
Dates: May 2019 – December 2020
Duties:
I performed basic soils and concrete laboratory testing, including moisture content and slump tests, under supervision. I logged boring and test pit data for subsurface investigations. I entered laboratory results into project databases to support geotechnical analyses and report preparation.

Company: Wood Rodgers, Inc.
Title: Laboratory Technician
Dates: December 2020 – June 2021
Duties:
I conducted laboratory testing of soils and aggregates, including Proctor Compaction Tests, Sieve Analyses, and Atterberg Limits, to determine engineering properties. I performed compressive strength testing on concrete cylinder samples. I continued logging subsurface exploration data and compiling lab results for use in geotechnical reports.

Company: Wood Rodgers, Inc.
Title: Geotechnical Field Technician
Dates: June 2021 – March 2022
Duties:
I collaborated with licensed engineers to conduct geotechnical field investigations, including test pit excavation, drilling operations, percolation and infiltration testing, and geophysical surveys. I assigned laboratory test schedules based on site conditions and project requirements. I drafted report appendices and figures using gINT and GIS tools to support engineering recommendations.

Company: Wood Rodgers, Inc.
Title: Assistant Engineer – Geotechnical
Dates: March 2022 – Present
Duties:
I independently plan and execute geotechnical investigations, including subsurface exploration, infiltration testing, and geophysical surveys. I develop preliminary foundation design recommendations for residential and commercial buildings, pavement sections, and grading plans in accordance with local codes and standards. I conduct site inspections to verify construction compliance with geotechnical design parameters and communicate findings to project stakeholders.

REPRESENTATIVE PROJECTS

1. US 50 South Shore Revitalization Project – Tahoe Transportation District | South Lake Tahoe, CA (2020)
As a Geotechnical Field Technician, I performed the geotechnical field investigation and drafted the report for the Pioneer Trail Workforce Housing portion of the project. I excavated, logged, and sampled six test pits, conducted two ReMi geophysical surveys, and performed percolation testing in accordance with El Dorado County standards. I compiled field data and contributed to the geotechnical report, which supported roadway realignment and housing development in a high-traffic corridor.

2. Northern Nevada Medical – Damonte Ranch FED | Reno, NV (2020)
I completed the geotechnical field investigation for a two-story emergency room and outpatient medical building, along with a one-story professional office addition. I excavated test pits and performed geophysical surveys to characterize subsurface conditions. I supported the development of recommendations for shallow foundations and site preparation. This project helped me understand

the geotechnical considerations for medical facilities and the importance of soil-structure interaction in healthcare design.

3. Eagle Valley Middle School Addition – Carson City School District l Carson City, NV (2021)
I coordinated the geotechnical investigation for a two-story building addition while ensuring school operations were not disrupted. I drilled two 50-foot boreholes, excavated five test pits, and performed a ReMi geophysical survey. I drafted the geotechnical report based on field findings and provided recommendations for shallow foundations, grading, and utility trench backfill. This project marked my transition into managing field logistics and contributing to full report development.

4. Azure Phase II – Oakmont Properties l Sparks, NV (2021)
I conducted the geotechnical field investigation for a mixed-use development including a six-story parking structure, four-story apartment buildings, and townhomes. I drilled nine borings and performed a Refraction Microtremor (ReMi) geophysical survey. I compiled subsurface data and supported the preparation of two design-level geotechnical reports. I gained experience in evaluating seismic site classification and coordinating with structural engineers on foundation design parameters.

5. Debbie Smith CTE High School – Washoe County School District l Reno, NV (2023)
As an Assistant Engineer, I led the geotechnical investigation for a new career and technical education facility. I evaluated expansive soil conditions and proposed cost-saving foundation solutions using standard spread footings in lieu of deep foundations previously recommended. I coordinated with the client and project team to finalize recommendations and continue to provide testing and inspection services during construction. This project demonstrated my ability to apply engineering judgment and deliver value-driven solutions.

6. Hutchinson Creek Water Main Crossing – BC Schmidt Construction, Inc. l Yuba County, CA (2023)
I provided project coordination and technical review for the geotechnical investigation supporting a 12-inch ductile iron water main suspended from a steel I-beam over Hutchinson Creek. I oversaw exploration protocols and report development for abutment foundation design. I evaluated subgrade conditions and contributed to foundation recommendations for a critical utility crossing within Beale Air Force Base, ensuring stability and constructability in a sensitive area.

7. West Linda Comprehensive Safe Routes to School – Dokken Engineering l West Linda, CA (2024)
I provided oversight and technical review for geotechnical exploration and reporting services supporting pavement rehabilitation and roadway improvements aligned with the Safe Routes to School program. I evaluated existing structural pavement sections and subgrade conditions to develop rehabilitation and reconstruction recommendations. I worked closely with the design team to ensure geotechnical inputs supported long-term durability and compliance with program standards. This project reflects my current role in managing complex public infrastructure projects and delivering geotechnical solutions that support community safety and mobility.

TAWHID BIN RAHMATULLAH (22-563-21)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
11/05/2025

Citizenship
Bangladesh

SUMMARY

Engineering Experience after EAC degree

Total Engineering Experience
3 years, 6 months

Experience under licensed engineer
2 years, 1 month

Disciplinary Action
None reported

EDUCATION

Meets NCEES Engineering Education Standard

Bachelors in Civil Engineering
Bangladesh University of Engineering and Technology
February 2013–September 2017

Masters in Civil Engineering
Ohio University
January 2021–May 2023

EXAMS

Fundamentals of Engineering (FE)
Michigan PE
July 2023

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

LICENSES

Additional Licenses
None

TAWHID BIN RAHMATULLAH (22-563-21)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Coal Power Generation Company Bangladesh Limited (CPGCBL)
Chittagong (Bangladesh)
Assistant Engineer
July 2019—December 2020

Verified by
Mohammad Rafikul Islam
mohammad.pavel@gmail.com

Experience Summary
Full-Time
Engineering: 1 year, 5 months
Experience under licensed engineer: None

TASKS

Duties:
1) Create detailed design and cost estimate under instruction from the Project Engineer
2) Supervise construction to ensure compliance with designs and specifications.
3) Inspection and supervision of land development, quality control tests.
4) Coordinating between CPGCBL and Environmental Resources Management (ERM) in preparation of Environmental Impact Assessment and Environmental Monitoring Plan.
5) Review pay applications.

REPRESENTATIVE PROJECTS

Housing Design
Project: Design of Temporary Housing for Plant Security Personnel
Scope: Design housing for plant security personnel and supervise the construction
Date of Involvement: July 2019 to October 2020
I created the design, specifications, and cost estimate for the project under the supervision of the Project Manager. I designed the foundation, slab, columns, and beams. I developed specifications for the reinforcement, fine and coarse aggregates, bricks, cement, and corrugated roof panels. I prepared cost estimates for each item for budgetary consideration. I also drafted major portions of the project drawings.

Land Development
Project: Land development for a future construction project
Scope: Develop land with a specific type of soil and compaction
Date of Involvement: October 2019 to December 2020
I reviewed pay applications, conducted field verification of the work completed, and developed progress reports. I also reviewed soil compaction reports.

Road Construction
Project: Construction of an 8 km access road
Scope: Construction of an 8 km access road
Date of Involvement: October 2019 to December 2020
I answered RFIs, reviewed pay applications, conducted field verification of the completed work, and developed progress reports. I performed site observations to ensure compliance with the contract, drawings, and specifications.

TAWHID BIN RAHMATULLAH (22-563-21)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

TSi GEOTECHNICAL, INC.
Missouri (United States)
Staff Civil Engineer
August 2023—December 2023

Verified by
Andrew Scott DeClue
adeclue@tsigeotech.com

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

TASKS

Duties:
1) Contacted utility locating services to ensure project sites were safely marked before work begins.
2) Performed boring layout for utility clearance, supervising drill rigs, classifying soils, logging borings.
3) Performed and supervised field exploration, including SPT sampling, rock coring, well installation and pile testing.
4) Assisted in developing a variety of layouts, drawings, lab requests and designs.
5) Writing and reviewing engineering calculations, soil exploration reports, laboratory tests and reports.

REPRESENTATIVE PROJECTS

Project: Soil exploration for roads/bridges for Missouri department of transportation projects , Springfield, Missouri (August 2023 to December 2023)
Scope: Exploring soil properties to review the geotechnical report for construction of roads/bridges
Duties
Contacted utility locating services to ensure project sites were safely marked before work begins.
2) Performed boring layout for utility clearance, supervising drill rigs, classifying soils, logging borings.
3) Performed and supervised field exploration, including SPT sampling, rock coring, well installation and pile testing.
4) Assisted in developing a variety of layouts, drawings, lab requests and designs.
5) Writing and reviewing engineering calculations, soil exploration reports, laboratory tests and reports.

TAWHID BIN RAHMATULLAH (22-563-21)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

AECOM
New Mexico (United States)
Civil Engineer I
February 2024—February 2025

Verified by
Darin Robert Miller
darin.miller@aecom.com

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

TASKS

Tasks/Duties
1) Design, review, and optimize water and wastewater treatment systems, including pumps, pipes, tanks, and related infrastructure.
2) Preparation of technical reports, feasibility studies, and environmental assessments.
3) Coordination project schedules, budgets, and resources, ensuring all milestones are met.
4) Liaise with clients, regulatory agencies, and stakeholders to ensure compliance with local, state, and federal regulations.
5) Assist in conducting site assessments and inspections to ensure the effective operation of water and wastewater systems.
6) Perform assignments requiring the application of standard techniques, procedures, and criteria to carry out engineering tasks.
7) Exercise judgment limited to developing details of work in making preliminary selections and adaptations of engineering alternatives.
8) Prepare engineering-related calculations and develop drawings and visual aids.
9) Prepare design drawings, plans, sections, details, and profiles/sections with AutoCAD.

REPRESENTATIVE PROJECTS

Project: Southside Water Reclamation Plant: Primary Digesters Rehabilitation Evaluation Report, Albuquerque, New Mexico (March 2024 to Present)
Scope: Evaluation of primary digester mixers, covers, piping, valves, and pumps
Duties:
1) Reviewed existing mixer technologies for the digesters and presented a lifecycle cost analysis of each technology, including non-monetary advantages and disadvantages.
2) Evaluated pump alternatives for sludge draw-off pump selection.
3) Prepared conceptual drawings for an efficient piping system for the heat exchanger.
4) Compiled the overall evaluation report by gathering information from other disciplines (structural, electrical, computational fluid dynamics), vendors, and incorporating client comments.

Project: Tooley Water District Preliminary Engineering Report, Tooley, Oregon (September 2024 to Present)
Scope: Preparation of a report using desktop studies and available information to estimate the cost of a new well at the selected location.
Duties:
1) Prepared a report detailing the project's background and the various alternatives considered to address the drinking water issues in the Tooley Water District.
2) Conducted a preliminary environmental impact assessment for the selected alternative.
3) Performed the preliminary selection of pumps, valves, pipes, and the pump house, and prepared a cost estimate for the project.

Project: Southside Water Reclamation Plant: South Basin 1 & 2 Rehabilitation, Albuquerque, New Mexico (April 2024 to Present)
Scope: Replacing diffusers, repair concrete structures, remove and replace damaged valves and piping
Duties:
1) Reviewed submittals and tracked overall project progress.
2) Responded to contractor inquiries.
3) Reviewed pay applications and issued field orders.

TAWHID BIN RAHMATULLAH (22-563-21)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Ardurra
New Mexico (United States)
Water/Wastewater Engineer I
February 2025—May 2025

Verified by
Tawhid Bin Rahmatullah (Self)

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

TASKS

1) Prepare design plans, technical outlines, and perform calculations for specific segments of water and wastewater infrastructure projects.
2) Assist in the preparation of technical specifications and documentation for treatment systems and related infrastructure.
3) Identify quantities of materials and develop detailed cost estimates in support of project planning and execution.
4) Evaluate vendor bids, submittals, and technical drawings to ensure compliance with project specifications and standards.
5) Review and approve design drawings within established project limits and technical guidelines.
6) Prepare technical reports or contribute to sections of larger engineering and environmental reports.
7) Conduct field measurements, site assessments, and basic testing to support data collection and design validation.
8) Provide technical assistance to proposal teams or proposal managers during the preparation of project bids and submissions.
9) Support multi-disciplinary engineering efforts by applying standard techniques, engineering judgment, and design principles.

REPRESENTATIVE PROJECTS

Representative Projects
Project: Wastewater Treatment Plant Upgrade FY22
Location: Middleton, Idaho
Duration: March 2025 – Present
Scope: Upgrade of an existing wastewater treatment plant to accommodate projected population growth, including the design of new headworks, primary treatment, and secondary treatment facilities.
Duties:
1) Review 90% design drawings for headworks, primary treatment, and secondary treatment systems.
2) Evaluate drawings for fatal flaws and ensure alignment with the Preliminary Engineering Report (PER).
3) Verify that all required features and components are accurately represented in the design drawings and technical specifications.

Project: L-208 TCP and H_2S Removal Project
Location: Bakersfield, California
Duration: April 2025 – Present
Scope: Treatment of the L-208 well for 1,2,3-Trichloropropane (TCP) and evaluation of existing hydrogen sulfide (H_2S) treatment vessels for the City of Bakersfield.
Duties:
1) Analyze L-208 well water quality data and summarize applicable TCP regulations and GAC design criteria for the Preliminary Design Report.
2) Coordinate with vendors to obtain media recommendations and vessel sizing information.
3) Manage delivery of GAC media to the RSSCT (Rapid Small-Scale Column Testing) vendor for bench-scale testing.
4) Support the evaluation of dual-contaminant treatment potential for TCP and H_2S within a single treatment train.

TAWHID BIN RAHMATULLAH (22-563-21)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Ardurra
New Mexico (United States)
Water/Wastewater Engineer I
February 2025—October 2025

Verified by
Tawhid Bin Rahmatullah (Self)

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

TASKS

1. Prepare design plans, technical outlines, and perform engineering calculations for water and wastewater infrastructure projects.
2. Assist in developing technical specifications and supporting documentation for treatment systems and related facilities.
3. Quantify material requirements and prepare detailed cost estimates to support project planning and execution.
4. Evaluate vendor bids, submittals, and technical drawings for compliance with project specifications and standards.
5. Review and approve design drawings within established project limits and technical guidelines.
6. Prepare technical reports or contribute sections to larger engineering and environmental reports.
7. Conduct field measurements, site assessments, and basic testing to support data collection and design validation.
8. Provide technical assistance to proposal teams during the preparation of bids and submissions.
9. Support multi-disciplinary engineering teams by applying standard techniques, sound engineering judgment, and design principles.

REPRESENTATIVE PROJECTS

Project: Wastewater Treatment Plant Upgrade (FY22)
• Location: Middleton, Idaho
• Duration: March 2025 – Present
• Scope: Upgrade of an existing wastewater treatment plant to accommodate projected population growth, including the design of new headworks, primary treatment, and secondary treatment facilities.
• Duties:
1. Reviewed 90% design drawings for headworks, primary treatment, and secondary treatment systems.
2. Evaluated drawings for potential deficiencies and confirmed alignment with the Preliminary Engineering Report (PER).
3. Verified that all required features and components were accurately represented in the design drawings and technical specifications.

Project: L-208 TCP and H_2S Removal Project
• Location: Bakersfield, California
• Duration: April 2025 – Present
• Scope: Treatment of the L-208 well for 1,2,3-Trichloropropane (TCP) and evaluation of existing hydrogen sulfide (H_2S) treatment vessels for the City of Bakersfield.
• Duties:
1. Analyzed L-208 well water quality data and summarized applicable TCP regulations and granular activated carbon (GAC) design criteria for the Preliminary Design Report.
2. Coordinated with vendors to obtain media recommendations and vessel sizing information.
3. Managed the delivery of GAC media to the Rapid Small-Scale Column Testing (RSSCT) vendor for bench-scale testing.
4. Prepared the RSSCT testing protocol.
5. Prepared the Preliminary Design Report.
6. Supported evaluation of dual-contaminant treatment potential for TCP and H_2S within a single treatment train.
7. Prepare the operations plan for the TCP and H_2S treatment system.

TAWHID BIN RAHMATULLAH (22-563-21)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Ardurra
New Mexico (United States)
Water/Wastewater Engineer I
February 2025—November 2025

Verified by
Ripan Kumar Saha
rsaha@ardurra.com

Experience Summary
Full-Time
Engineering: 9 months
Experience under licensed engineer: 9 months

TASKS

1. Prepare design plans, technical outlines, and perform engineering calculations for water and wastewater infrastructure projects.
2. Assist in developing technical specifications and supporting documentation for treatment systems and related facilities.
3. Quantify material requirements and prepare detailed cost estimates to support project planning and execution.
4. Evaluate vendor quotations, submittals, and technical drawings for compliance with project specifications and standards.
5. Review and approve design drawings within established project limits and technical guidelines.
6. Prepare technical reports or contribute sections to larger engineering and environmental reports.
7. Support multi-disciplinary engineering teams by applying standard techniques, sound engineering judgment, and design principles.

REPRESENTATIVE PROJECTS

Project: Wastewater Treatment Plant Upgrade (FY22)
• Location: Middleton, Idaho
• Duration: March 2025 – Present
• Scope: Upgrade of an existing wastewater treatment plant to accommodate projected population growth, including the design of new headworks, primary treatment, and secondary treatment facilities.
• Duties:
1. Review 90% design drawings for headworks, primary treatment, and secondary treatment systems.
2. Evaluate drawings for potential deficiencies and confirmed alignment with the Preliminary Engineering Report (PER).
3. Verify that all required features and components were accurately represented in the design drawings and technical specifications.

Project: L-208 TCP and H_2S Removal Project
• Location: Bakersfield, California
• Duration: April 2025 – Present
• Scope: Treatment of the L-208 well for 1,2,3-Trichloropropane (TCP) and evaluation of existing hydrogen sulfide (H_2S) treatment vessels for the City of Bakersfield.
• Duties:
1. Analyze L-208 well water quality data and summarize applicable TCP regulations and granular activated carbon (GAC) design criteria for the Preliminary Design Report.
2. Coordinate with vendors to obtain media recommendations and vessel sizing information.
3. Manage the delivery of GAC media to the Rapid Small-Scale Column Testing (RSSCT) vendor for bench-scale testing.
4. Prepare the RSSCT testing protocol.
5. Prepare the Preliminary Design Report.
6. Support evaluation of dual-contaminant treatment potential for TCP and H_2S within a single treatment train.
7. Prepare the operations plan for the TCP and H_2S treatment system.

ADDITIONAL INFORMATION

TIME GAPS

Start Date	End Date	Explanation
July 2012	January 2013	In Bangladesh, there are typically transitional periods between completing high school and beginning undergraduate studies, which explains the gap.
October 2017	June 2019	In Bangladesh, government job applications involve several stages and make the process lengthy. Due to the lengthy process, I secured a position in 2019, explaining the unemployment gap in my work history.

CREDENTIALS EVALUATION - ENGINEERING

BIN RAHMATULLAH, TAWHID
(22-563-21)

DEGREES EVALUATED

Institution/Degree	Country	Language	Courses
Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering 02/01/2013 — 09/01/2017	Bangladesh	English	46
Ohio University / Masters in Civil Engineering 01/01/2021 — 05/01/2023	United States	English	None

COMPARABILITY SUMMARY

Outcome: Equivalent

Area	Hours	Deficiency
Math/Science	32 / 32	None
Engineering	85 / 48	None
General Education	12 / 12	None
Elective/Other	31 / N/A	None

MATH/SCIENCE

Specified Criteria Hours: 32

Course	Institution/Degree	U.S. Credits
Applied Mathematics	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	3
Calculus I	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	3
Calculus II	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	3
Chemistry	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	4.5
Differential Equations	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	3
Engineering Geology	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	4.5
Numerical Methods	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	3.5
Physics I	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	4.5
Physics II	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	3
	Total semester credit hours earned:	**32.00**

Specified Criteria Hours: 48

Course	Institution/Degree	U.S. Credits
Analytical Mechanics	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	3
Bachelor Thesis	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	4.5
Design of Concrete Structures I	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	3
Design of Concrete Structures II	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	4.5
Design of Steel Structures	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	4.5
Engineering Economics	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	2
Environmental Engineering I	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	4.5
Environmental Engineering II	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	4
Environmental Pollution	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	2
Fluid Mechanics	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	4.5
Foundation Engineering	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	3
Open Channel Flow	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	5.5
Soil Mechanics	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	5.5
Solid Mechanics I	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	3
Solid Mechanics II	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	4.5
Structural Analysis & Design I	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	4
Structural Analysis & Design II	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	4.5
Transportation Engineering I	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	3
Transportation Engineering II	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	5.5
Transportation Engineering III	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	5.5
Water Resources Engineering	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	4.5

Total semester credit hours earned: 85.00

GENERAL EDUCATION

Specified Criteria Hours: 12

Course	Institution/Degree	U.S. Credits
Accounting	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	2
English	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	3.5
Professional Communication	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	4.5
Sociology	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	2
	Total semester credit hours earned:	**12.00**

ELECTIVE/OTHER

Specified Criteria Hours: N/A

Course	Institution/Degree	U.S. Credits
Architectural Planning	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	1.5
Computer Aided Drafting	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	1.5
Construction Project Management	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	4
Development Impact of Projects	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	3
Electrical Technology	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	3
Engineering Drawing	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	1.5
Engineering Materials	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	4.5
Environmental Management	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	2
Foundations	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	1.5
Quantity Surveying & Estimation	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	1.5
Surveying	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	5.5
Workshops	Bangladesh University of Engineering and Technology / Bachelors in Civil Engineering	1.5
	Total semester credit hours earned:	**31.00**

Total Semester Credit Hours Earned: 160

PROCESS DESCRIPTION

All education is compared to the NCEES Engineering Education Standard

The evaluation of your academic studies has been prepared to provide engineering and surveying licensing boards with the required assessment of foreign qualifications to facilitate them in determining if you qualify for licensure examination. This is an advisory report prepared based on records received and verified by the institutions issuing the degrees or qualifications. Eligibility to take the examination is determined by the licensing boards.

This report does not include the assessment of written and oral communication skills, computer skills, the quality of laboratory or field work, and the scope of design experience, which require an onsite review. Academic records (such as transcripts and catalogs) do not document qualitative factors and practical constraints to desirable outcomes.

NCEES houses a library of reference materials from around the world. These references are used for the completion of evaluations in conjunction with the NCEES Engineering Education Standard.

Post-graduate courses are ONLY used in an evaluation if they can assist in eliminating deficiencies that may be indicated in the undergraduate program.

Official Evaluations are ONLY available to state licensing boards and international exam sites through an applicant's NCEES account.

MELISSA CARR (22-056-77)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
12/01/2025

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

Associates in Science
Western Nevada College
August 2016–December 2018

Bachelors in Civil Engineering (EAC)
University of Nevada, Reno
January 2019–December 2021

EXAMS

Fundamentals of Engineering (FE)
Nevada
December 2022

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

LICENSES

Additional Licenses
None

MELISSA CARR (22-056-77)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

RO Anderson (Wilson Engineers)
Nevada (United States)
Civil Technician
December 2021—September 2022

Verified by
Ryan Spreeman
ryan.spreeman@wilson-engineers.com

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

TASKS

During my time at RO Anderson, now known as Wilson Engineers, I was responsible for designing single and multi-phased commercial and industrial projects. The projects that I was responsible for included tasks such as creating site layouts, designing the storm water networks, and performing hydrologic and hydraulic analyses for the storm drain networks. The aspects of designs I was responsible for include adequately sizing proposed storm drain networks and detention and retention facilities. I was additionally tasked with summarizing my complete designs within technical drainage studies.
I was responsible for designs on projects that range from mixed-use commercial buildings, large industrial subdivisions, to individual industrial buildings. I was tasked with completing the design of the storm drain networks, hydrologic and hydraulic analyses, and design site layouts. On more intricate designs I worked alongside licensed professional engineers with several years of experience.

REPRESENTATIVE PROJECTS

Holcomb Flex
Holcomb Flex is a mixed-use building located in Reno, Nevada that I worked on from December 2021 to September 2022. The project consisted of a mixed-use building with associated parking and utilities. I was tasked with designing the storm drain layout and performed the required calculations and technical reports for the storm drain analysis. At the time I worked on the project I designed the underground Stormtech chambers to detain the storm runoff generated by the project. I also designed the initial site layout and the NDOT drawings to connect to existing utilities within the NDOT right of way.

Minden Tahoe Industrial Park Subdivision
The Minden Tahoe Industrial Park Subdivision is a 79-acre industrial subdivision located in Minden, Nevada that I worked on from February 2022 to September 2022. The project consisted of 35 lots ranging from 2 to 5 acres and included associated roadways and utilities to each individual lot. I was tasked with designing the storm drain and grading the detention facilities. I performed the hydrologic and hydraulic analysis for the site and summarized the data within a technical drainage study.

Geisler
Geisler is an industrial building located at 2536 Precision Drive in Minden, Nevada that I worked on from April 2022 to July 2022. The project consisted of a 21,419 square-feet building, associated drive isles, parking and utilities. The project included the grading of design of storm drain, sewer, and water connections. I performed the hydrology and hydraulic analysis for the proposed storm drain system. I summarized my calculations for the storm drain network within a technical drainage study.

WORK EXPERIENCE

Manhard Consulting
Nevada (United States)
Civil Designer
September 2022—December 2025

Verified by
Will Ryan Ferreira
wferreira@manhard.com

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

TASKS

During my time at Manhard Consulting, I have been responsible for designing single and multi-phased residential and commercial projects. The projects that I have been responsible for included tasks such as creating site layouts, grading plans, erosion control plans, and overall utility designs. The aspects of designs I have been responsible for include horizonal and vertical design of utilities such as water mains, sanitary sewers, and storm drain facilities. The calculations for said completed designs are summarized within technical reports that I have put together. Additionally, my position involves creating detailed engineered slope designs, basin designs, and earthwork analyses.
I have been responsible for designs on a large variety of projects ranging from small single and multi-family developments to large multi-phase master planned communities and commercial sites. On more intricate designs, I have worked closely alongside licensed professional engineers with numerous years of experience.
While my role at Manhard has primarily been an office based one, I have also been responsible for going out to residential projects to approve of finished lot grading. This would involve having to verify the work finished in the field matched the approved design. If there were any variations from the approved designs, I was responsible for having to determine if it was an acceptable deviation from the plans and could be included on “as-built” plans or if it would need to be redone.

REPRESENTATIVE PROJECTS

Brookview Ranch
Brookview Ranch is an 84-acre residential subdivision in Dayton, Nevada that I have worked on since September 2022 and is currently ongoing. The project consists of 49 one-acre residential lots, roadways, storm drain, force main, sanitary sewer main, and water mains. I was tasked with designing the storm drain, water main, and sewer main both horizontally and vertically. I also performed the required calculations and technical reports for the storm drain and sewer analyses.

Point Legado - Phase 4 and 5
Point Legado Phases 4 and 5 Subdivision is a combined total of 21-acres residential subdivision in Dayton, Nevada that I have worked on since February 2023 and is currently ongoing. The projects consist of a total of 104 single family residential units with roadways, storm drain, sanitary sewer, and water mains that service every lot. I designed the grading for the entire site to provide proper drainage in every roadway and individual lot. I was tasked with providing the hydrologic and hydraulic reports to design the storm drain as well as calculating the sanitary sewer and designing the utilities both horizontally and vertically. In addition to sizing the utilities I was tasked with grading the roadways and individual lots.

Traditions Commercial Subdivision
Traditions Commercial Subdivision is a 112-acre commercial subdivision located in Dayton, Nevada that I have worked on since May 2023 and is currently ongoing. The project consists of infrastructure, backbone road networks, utilities, detention analysis and mass grading to support future commercial and industrial buildings. My role for this project included a thorough hydrologic and hydraulic analysis and report to size the proposed storm drain network, sewer analysis and report to adequately size the proposed sewer network, and design the utilities including water both horizontally and vertically. Additionally, I designed the grading to provide proper drainage throughout the site.

Traditions Village 2
Traditions Village 2 is a five phased residential subdivision located in Dayton, Nevada that I have worked on since February 2024 and is currently ongoing. The project consists of 195 single family residential lots with roadways, storm drain, sanitary sewer, and water mains that service each individual lots. I was tasked with grading the entire site, performing hydrologic and hydraulic analyses for the technical drainage study, designing all utilities both horizontally and vertically, and providing the technical calculations and reports.

Arrowleaf Apartments
Arrowleaf apartments is a 5-acre apartment complex located in Reno, Nevada that I have worked on since December 2024 and is currently ongoing. The project consists of designing roadways, parking, and utilities to support the development of six buildings within the site. I performed the required calculations to design storm drain pipes, sanitary sewer pipes, and water main, and designed the utilities both horizontally and vertically. I was also tasked with grading the entire site to provide proper drainage and access for each building, parking areas, and roadways.

Eagle Valley Airport Development
Eagle Valley Airport Development is a 2.5-acre commercial development that includes four airport hangars located in Carson City, Nevada that I have worked on since June 2025 and is currently ongoing. The project consists of designing travel ways, parking, and utilities to support the development of accessible hangars. I was tasked with designing the site layout, grading the entire site to provide proper drainage and accessibility throughout the site, all utility designs servicing each bay within the hangars, and providing the calculations and reports for both the storm drain system and sewer system.

ERICA CROFT (19-011-03)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
12/01/2025

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
6 years, 2 months

Total Engineering Experience
6 years, 2 months

Experience under licensed engineer
6 years, 2 months

Disciplinary Action
None reported

ABET EAC · FE EXAM · PE EXAM · 4+

EDUCATION

Bachelors in Architectural Engineering (EAC)
California Polytechnic State University, San Luis Obispo
September 2014–June 2018

Masters in Structural Engineering
University of California, San Diego
September 2018–December 2019

EXAMS

Fundamentals of Engineering (FE)
California
February 2018

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

LICENSES

Additional Licenses
None

ERICA CROFT (19-011-03)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Watry Design, Inc.
California (United States)
Engineering Intern
July 2018—December 2019

Verified by
Jason Schneider
jason.l.schneider@gmail.com

Experience Summary
Part-Time
Engineering: 5 months (25%)
Post EAC degree: 5 months (25%)
Experience under licensed engineer: 5 months

TASKS

I was hired as an engineering intern and worked full time during the summers of 2018 and 2019, and worked part-time during the school year as I was completing my Master's degree at UCSD. My duties mainly consisted of analyzing and designing post-tensioned concrete parking structures. During my time as an intern, I designed conventionally reinforced and post-tensioned concrete slabs and beams, concrete columns and shear walls, and concrete grade beams, spread footings, and mat foundations. All of my design projects were located in areas with high seismic activity, and required the submission of a calculation package in addition to the construction documents to be reviewed and approved by the city prior to construction. My tasks included creating and analyzing a global analysis model, designing individual structural elements, compiling and creating the calculation package for those structural elements, and drafting plans and details for the elements that I designed. I also assisted in reviewing rebar shop drawings for a few projects that were actively in construction.

REPRESENTATIVE PROJECTS

One of the main projects I was involved in was the design of the new post-tensioned concrete subterranean parking garage for historic Hotel Del Coronado in San Diego. I was tasked with creating the analysis models for the building, which required competency in a handful of different analysis software. I used ADAPT to design the gravity elements of the structure, which consisted of a two-way post-tensioned reinforced concrete slab spanning to concrete columns. Once the gravity elements were sufficiently designed, I created an ETABS model, which we used to analyze and design the lateral systems of the structure. Due to the unique geometry of the parking structure, the building was classified as having an extreme torsional irregularity, and because the structure was located in a high seismic area, we were barred from using the typical ELF procedure and I had to conduct a modal analysis. Once the lateral model was sufficiently developed, I exported the ETABS reactions to create and analyze the mat foundation of the structure using SAFE. All of my models and calculations of the design of structural elements were reviewed by my project manager, and once I received approval, I drafted the required details and schedules for the elements that I had designed. I stayed on with the project all the way through the development of the construction documents, but I left the company before it went into construction. The project was officially completed in 2020.

ERICA CROFT (19-011-03)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

TYLin
California (United States)
Project Engineer
February 2020—November 2025

Verified by
Nathan Andrew Hicks
nathan.hicks@tylin.com

Experience Summary
Full-Time
Engineering: 5 years, 9 months
Post EAC degree: 5 years, 9 months
Experience under licensed engineer: 5 years, 9 months

TASKS

When I was first hired as an "Engineer" for Silman (Silman was later acquired by TYLin in 2021), I calculated and designed structural elements for a variety of buildings and building materials. Some of the buildings that I worked on included schools, a veterinary clinic, hotels, museums, NYC townhouses, and historic NYC mid and high-rise buildings. In addition to designing the new structure (or renovating an existing structure), I would draft and compile the structural drawings, which included developing unique sections and details. For the projects that continued into construction, I would review shop drawings and submittals, and answer RFIs that pertained to areas of the structure that I had worked on. When I was promoted to a "Project Engineer" in 2023, my duties expanded to include project management, which included: coordinating with the architect/owner's representative during design, managing other engineers on our team during design and construction, coordinating with the construction and design teams during CA, managing the project during construction, and managing billable hours and invoices.

REPRESENTATIVE PROJECTS

Waldorf Astoria New York; 301 Park Ave, New York, NY 10022. Time on project: 2020-2022. This project was a full building renovation of the historic Waldorf Astoria hotel; a 47-story structure with ~1.6 million sq.ft. undergoing renovation. Completed in 1931, the structural system consists of draped-mesh cinder slabs spanning to concrete-encased steel beams and columns. Project scope included upgrading the MEP system for modern use and transforming the upper levels of the hotel into high-end residential with a variety of amenities. I joined the project team in 2020 while the building was in active construction. I reviewed hundreds of structural steel submittals, which consisted mainly of new steel beams to support new MEP openings within the existing cinder slab. I reviewed and answered under a hundred RFIs, which mainly dealt with structural feasibility of design changes and confirming the existing conditions of the structure. This often required me to calculate the capacity of the existing cinder slab, existing steel beams, and new steel beams. I also conducted a few site visits to observe and review the existing conditions of several areas of the structure, and compiled site visit reports documenting our findings.

Spring & Thompson Condominium; 182 Spring St, New York, NY 10012. Time on project: 2021-2024. This project was a new build, 7-story cast-in-place concrete structure comprising of roughly ~32,000 sq.ft. I designed the gravity system, which comprised of a 2-way concrete slab spanning to rectangular columns, which were supported by a mat slab supported by micropiles. I also designed the lateral system, which consisted of ordinary reinforced concrete shear walls. This new building also had to support the neighboring building to the south, a 5-story tall masonry building with wood infill, which was leaning more than 10 inches over the property line at the roof. I had to design our building to support both the service condition (permanent load imparted onto our structure) and for the seismic condition to ensure that our building was properly designed for it's own loading in addition to the load imparted by the neighboring building. When the project began in 2021, my design and analysis of the structure was supervised and managed by my project manager, but by the time construction began in 2023, I assumed the role of project manager for this project. I reviewed all structural submittals, which primarily consisted of rebar shop drawings, represented the structural team during weekly OAC calls, conducted site visits, and compiled site visit reports documenting our findings.

Tulare Elks Lodge; 124 E Kern Ave, Tulare, CA 93274. Time on project: 2023-2025. This project was the renovation of the historic Elks Lodge building, completed in the 1920s. The building is a two-story tall structure + basement constructed of unreinforced brick masonry with interior timber framing, and comprising of roughly ~19,000 sq.ft. Project scope included renovation of the basement into habitable space and renovating the two existing timber floors. Additionally, I had to confirm whether the existing structure needed to be strengthened for live loads and seismic loads per the California Existing Building Code (CEBC). I analyzed the existing floor structure, which consisted of conventionally framed old-growth lumber, and confirmed that several beams needed to be reinforced. I designed the reinforcement, which consisted of new steel channels sistered to the existing wood beams. To comply with the seismic provisions of the CEBC, the timber floors required anchorage into the masonry bearing walls. I designed the anchorage for the seismic forces, which was required to be installed around the full perimeter of the building's roof and second floor. My analysis confirmed that the minimal structural updates to the building did not require additional seismic strengthening of

the existing lateral system, and the building was compliant per the CEBC. I was the project manager for both the design and construction phases of the project. I reviewed structural submittals, answered RFIs, and conducted site visits. The renovation is still underway, but the building received it's final structural inspection in early 2025, and I issued a final report confirming that the structural scope of the project was completed per our documentation.

VANESA ESQUIVEL (21-091-40)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
11/10/2025

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
4 years, 7 months

Total Engineering Experience
4 years, 7 months

Experience under licensed engineer
2 years, 8 months

Disciplinary Action
None reported

EDUCATION

Non-degree
College of Southern Nevada
August 2015–May 2017

Bachelors in Mechanical Engineering (EAC)
University of Nevada, Las Vegas
January 2017–December 2020

EXAMS

Fundamentals of Engineering (FE)
Nevada
January 2021

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

LICENSES

Additional Licenses
None

VANESA ESQUIVEL (21-091-40)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

VTN
Nevada (United States)
Associate Engineer
April 2021—November 2025

Verified by
Sandeep Reddy Yanala
Sandeep.Yanala@vtnnv.com

Experience Summary
Full-Time
Engineering: 4 years, 7 months
Post EAC degree: 4 years, 7 months
Experience under licensed engineer: 2 years, 8 months

TASKS

As of today, I have dabbled in all aspects of the project life from entitlements to mylar approval, and am currently supporting construction through RFIs and revisions. As an Associate Engineer, I assist project managers from project initiation through final approval.

In my first few years, I primarily prepared drainage studies and water network analyses. I worked with HEC-1, FlowMaster, WSPG, and HY-8, performing various calculations such as finish floor verification, drop inlet sizing, and headwater/tailwater analyses. For water network analysis, I used Bentley WaterCAD, working with my project engineer to verify appropriate waterline sizes and ensure sites met required pressures.

Over time, my role expanded to include plan review under the supervision of a licensed engineer and greater involvement in the civil improvement process. I coordinate between agencies, developers, contractors, architects, planners, and land-use attorneys. I contribute design input and review plans prior to licensed engineer review to minimize minor comments, allowing the project engineer to focus on higher-level design decisions. Additionally, I gained experience assisting with plan processing for the City of North Las Vegas, Clark County, and the City of Las Vegas, learning the documentation and procedures required for submittals. I also help address agency redlines.

I assist during the entitlement phase by coordinating with land-use attorneys and planners on behalf of clients to secure parcel approvals. I review cross sections and identify potential design conflicts early to prevent issues during the civil improvement phase.

As I do this, I also support the drainage team by reviewing technical drainage studies and water network analyses for the projects I am involved in. From start to finish, I remain actively engaged in all phases of the project, including coordination under the project manager.

REPRESENTATIVE PROJECTS

Polywest was a commercial site consisting of one commercial/industrial building located within Henderson. The site included one underground detention basin with a length of 25 feet and an arch culvert with a height of 6 feet.

June 2021 – August 2022
Office Technician – Engineer Intern (E.I.)

For this project, I was involved in the drainage study phase and the water network analysis. It was one of the few drainage studies during my first year where I learned to analyze hydrology and hydraulics and perform basic CAD work. I gained experience using HEC-1, FlowMaster, WSPG, preparing hydrology maps, and assisting with the implementation of a trench drain. This was also the first project where I analyzed an underground detention basin and sized an orifice plate to control outflow towards the right-of-way (ROW).

Palm Eastern Event Center was a site developed with one commercial building. Offsite improvements included extending a 10-inch waterline along Eldorado Avenue, adding two public hydrants, and closing an existing driveway to replace it with a berm for flood protection.

Palm Eastern Maintenance Building was a small maintenance building for staff, along with a sewer force main and approximately 9 acres of mass grading with a 3-foot stockpile. The offsite only included one public hydrant.

Both of these parcels were located within the 70-acres of Palm Eastern Mortuary and are currently under construction.

_____

End of 2022 – Approved 2025 (Revisions/RFIs Ongoing)
Associate Engineer / Acting Assistant Project Manager (under the supervision of a Licensed Engineer)

_____

The Palm Eastern Event Center (3 acres) and Maintenance Building (1 acre developed, 9 acres mass graded) are located within a 70-acre property in Clark County. I was involved in these projects after entitlement approval, assisting in the preparation and review of the technical drainage studies through final approval under the supervision of a licensed engineer. This included performing hydrology and hydraulic analyses for both sites.

During the technical study phase, I coordinated with Clark County reviewers to address flooding issues that consistently occurred on the property, as reported by Palm Mortuary staff. The problem originated at two existing driveways at the upstream end of the 70-acre parcel. The existing humps were no longer effective, and due to limited regional drainage facilities along Eastern Avenue, flow was entering the site. Because of existing headstones located immediately adjacent to the driveways, raising the humps was not feasible. As a result, one driveway was closed and replaced with a berm, while the other was modified to include a new hump that maintained two-way traffic. This required me along with the project engineer to continuous coordinate with the developer, client, and reviewing agencies.

Once the technical studies were approved, I assisted in preparing the civil plan sets for submittal to the agencies. Some design challenges arose, specifically, the Maintenance Building along Eldorado required a gravity-fed sewer system against the grade, discharging to a private sewer force main approximately 1,000 linear feet long before tying back into the public main, as no existing sewer line was present along Eldorado. I researched design parameters and assisted in developing the layout for this system.

The Event Center faced fire flow issues due to an undersized 6-inch mainline along Eastern Avenue, originally built in the 1970s, and the lack of adjacent waterlines along Robindale. I prepared multiple iterations of the water network analysis to verify sizing and confirm that extending a waterline along Robindale would meet the required fire flow criteria. Worked with the CAD team to implement design.

As redlines were received, I assisted in reviewing comments and worked with the design team to address them. After backchecking plans prior to licensed engineer review, I also helped process submittals with all agencies. This provided a well-rounded understanding of the full design and permitting process, including client coordination and agency requirements.

Currently, I am assisting with contract RFIs, handling and processing plan revisions, and coordinating with contractors. I also manage coordination efforts with another engineering firm handling a separate project within the Palm Eastern Mortuary parcels.

FAITH GREENE (21-898-11)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
08/21/2025

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
4 years

Total Engineering Experience
4 years, 7 months

Experience under licensed engineer
4 years, 7 months

Disciplinary Action
None reported

EDUCATION

Non-degree
College of Southern Nevada
August 2016–December 2017

Bachelors in Civil Engineering (EAC)
University of Nevada, Las Vegas
January 2018–December 2021

EXAMS

Fundamentals of Engineering (FE)
Nevada
May 2021

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

LICENSES

Additional Licenses
None

FAITH GREENE (21-898-11)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Horrocks
Nevada (United States)
Structural Engineer In Training
May 2021—June 2024

Verified by
Jared Olsen
JaredO@horrocks.com

Experience Summary
Full-Time
Engineering: 3 years, 1 month
Post EAC degree: 2 years, 6 months
Experience under licensed engineer: 3 years, 1 month

TASKS

- Perform design and analysis of superstructures for single-span and multi-span concrete and steel bridges, as well as substructures for single-span bridges, using spreadsheets, finite element analysis, and specialized bridge software.
- Conduct bridge load ratings and evaluate site-specific conditions to prepare structure type selection reports, cost estimates, and technical specifications in accordance with current design codes and local agency standards.
- Prepare comprehensive design calculations, construction specifications, and structural recommendations to support high-quality and code-compliant submissions.
- Lead the development of bridge rehabilitation plans, including structural detailing and the creation of plan sheets for bridge and transportation projects.
- Maintain rigorous QA/QC procedures for all deliverables, including plan sheets and calculations, to ensure accuracy and consistency prior to client submission.
- Extract and analyze project data using AutoCAD, MicroStation, and other design platforms to support effective decision-making and plan development.
- Provide structural support across interdisciplinary transportation projects within Horrocks Engineers, fostering strong collaboration across teams and office locations.
- Coordinate with CAD technicians to develop accurate structural details, ensuring clarity and consistency in design intent.
- Take full ownership of assigned project tasks, proactively managing deadlines and deliverables across multiple concurrent projects.

REPRESENTATIVE PROJECTS

From January to April 2024, I was actively involved in the I-80 West Reno Bridge Replacements project, which encompassed the replacement of multiple bridge structures along this critical transportation corridor. During this period, I led the design and detailing of the superstructure for a 245-foot, four-span prestressed concrete box girder (PCPS) bridge with unequal span lengths. The varying span configurations required careful structural analysis and precise girder optimization to ensure consistent performance and compliance with design standards. I developed detailed construction plans and worked closely with the project team to address site-specific constraints, traffic staging requirements, and constructability challenges. My efforts contributed to the successful advancement of one of several key bridge replacements aimed at enhancing the safety and capacity of I-80 through West Reno.

From February 2022 to May 2023, I was involved in the I-15; SR-97 (5600 South) Widening Project, a major infrastructure effort aimed at improving traffic flow and safety in the area. The project included the construction of a new box culvert canal, the widening of the SR-97 freeway, replacement of the existing bridge at 5600 South, and the replacement of a bridge over the Union Pacific Railroad (UPRR) with a longer and wider structure to meet updated clearance and capacity requirements. It also featured the addition of a new collector-distributor ramp system to enhance traffic movement and reduce congestion. As part of my role, I submitted a concept proposal to UPRR for the bridge replacement over the railroad and developed a BRASS Culvert model to assess the existing canal's suitability for the proposed improvements. I performed the superstructure design and detailing for a 214-foot single-span steel bridge spanning the UPRR tracks, addressing complex clearance and constructability constraints. Additionally, I prepared detailed bridge removal plans, which included replacing the removed structure with a new box culvert and backfilling it with earth. I also reviewed and provided technical comments on partial depth precast panel shop drawings to ensure alignment with project specifications, quality standards, and overall project goals.

FAITH GREENE (21-898-11)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

City of Henderson
Nevada (United States)
Project Engineer I
June 2024—December 2025

Verified by
Nathan Enos
Nathan.Enos@cityofhenderson.com

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

TASKS

- Lead coordination and execution of construction projects in accordance with engineering design specifications, contract documents, and applicable codes
- Review and interpret civil plans to ensure constructability and compliance with project requirements
- Provide technical oversight during construction, resolving engineering-related field issues in collaboration with design engineers and contractors
- Monitor and manage construction schedules, budgets, and resource allocation to meet project objectives and contractual obligations
- Oversee quality control and assurance processes, including inspection of materials, methods, and workmanship for adherence to engineering standards
- Coordinate with multidisciplinary teams including design consultants, geotechnical engineers, utilities, parks and recreation, and regulatory agencies
- Prepare and review submittals, RFIs, change orders, and as-built documentation for accuracy and completeness
- Ensure compliance with environmental, safety, and permitting regulations throughout the project lifecycle
- Evaluate value engineering proposals and assess construction methods for efficiency, safety, and cost-effectiveness

REPRESENTATIVE PROJECTS

From January to July 2025, I served as the Project Manager for the Via Inspirada and Bicentennial Parkway Intersection Improvements project, which replaced the existing double roundabout configuration with two fully signalized intersections to improve traffic flow and safety. The project scope included plantmix bituminous pavement, UTACS surfacing, storm drain facilities, LED streetlighting, pavement markings, traffic signal systems, traffic signing, median islands, sidewalk, curb and gutter, ADA-compliant sidewalk ramps, utility modifications and adjustments, and other associated improvements. In my role, I oversaw the project from start to finish, reviewing all submittals, shop drawings, RFIs, and change orders to ensure compliance with contract documents, quality standards, and schedule requirements. Throughout the project, I was actively engaged in problem-solving—addressing unforeseen site conditions, coordinating with multiple stakeholders to resolve utility conflicts, and developing practical solutions to keep the project on schedule and within budget. For technical items outside my direct engineering expertise, I worked closely with the engineer of record to obtain guidance and ensure that all design and construction elements were addressed accurately and effectively.

PAYTON GRIFFIN (22-234-27)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
11/26/2025

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
2 years, 4 months

Total Engineering Experience
2 years, 4 months

Experience under licensed engineer
2 years, 4 months

Disciplinary Action
None reported

ABET EAC

FE EXAM

PE EXAM

EDUCATION

Bachelors in Civil Engineering (EAC)
University of Nevada, Reno
August 2018–May 2022

Masters in Civil Engineering
University of Nevada, Reno
August 2022–May 2023

EXAMS

Fundamentals of Engineering (FE)
Nevada
February 2022

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

LICENSES

Additional Licenses
None

PAYTON GRIFFIN (22-234-27)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Lumos & Associates
Nevada (United States)
Structural Project Designer
July 2023—November 2025

Verified by
Eric James Hutchens
ehutchens@lumosinc.com

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

TASKS

I started as an Engineering Technician II and currently hold a Structural Project Designer position. My duties include:
Gather design criteria for projects based on location (ex. snow, wind, and seismic loads).
Design connections for welded and bolted steel connections, bolted and nailed wood connections, and post-installed or cast-in-place concrete anchorage.
Design structural members, including beams, columns, walls, and foundations for concentric and eccentric loading using both ASD and LRFD design methods.
Design lateral elements (ex. shear walls) for relevant seismic and wind forces and out-of-plane loading according to applicable load combinations per ASCE 7.
Complete on-site structural condition evaluations of existing structural elements and supplemental reports which summarize structural findings and repair recommendations.
Research proprietary products for repair of concrete structures with cracking, spalling, and other moisture-related damage.
Design concrete foundation elements for pre-engineered metal buildings based on reactions provided by building manufacturers for sliding, overturning, uplift, and soil bearing limits.
Use steel tank manufacturer data (i.e. weight and dimensions) to design base plate anchorage connections into existing concrete slabs.
Design of concrete and masonry retaining walls based on geotechnical report criteria and/or presumptive soil criteria per IBC.
Complete designs and details for handrail base plate connections into concrete foundations using mechanical and epoxy-type anchors.
Review contractor submittals for concrete and masonry reinforcement shop drawings.
Design beam elements for moving loads, such as trolley hoists, using calculation software such as RISA-3D and ENERCALC.
Design foundations for pole/sign elements with lateral loads due to wind based on allowable soil bearing pressure and foundation overturning factor of safety.
Detail concrete and masonry reinforcing by accounting for reinforcement development length, minimum required lap splice, and minimum reinforcing coverage requirements.
Determine minimum required soil embedment depth for concrete & PVC pipes based on traffic loading per AASHTO and anticipated construction loading.

REPRESENTATIVE PROJECTS

The Rockstar Bar Modification project consisted of strengthening a steel roof header which was found to be overstressed by the site roof snow loads. The project is located in South Lake Tahoe, CA.
Date of project: October 2023 - November 2023
I completed an analysis of the existing roof structure, including joists, headers, and columns within the aluminum-framed structure under gravity loads. Following the analysis, I determined options for repairing the deficient header. The repair details for the header were completed which involved welding a steel plate to the bottom surface of the header and adding columns to reduce the span of the header. I detailed the connections in each area using bolts and welds as necessary.

The Jackson Metal Building Foundation Design is a project involving the design of a foundation system for a pre-engineered metal building in Gerlach, NV.
Date of project: April 2024 - May 2024
I completed a design of the foundation system for a pre-engineered metal building. Considering the reactions provided by the metal building manufacturer, the foundations were designed for gravity loads, uplift loads due to wind, and any thrust loading from the steel bent columns. I also helped to create design drawings showing the plan layout of the foundations and all relevant details showing steel reinforcing, foundation dimensions, and cast-in-place anchor bolts for the steel bent columns.

The Gately RV & Boat Storage Mezzanine & Restroom Addition is a project involving the addition of a wood-framed mezzanine within an existing pre-engineered metal building in Carson City, NV. The project also included the addition of a stand-alone exterior restroom structure in a different location.
Date of project: November 2024 - February 2025 (design phase); construction to be completed in 2026
I performed structural calculations related to the gravity and lateral loads on the mezzanine and restroom structure. Seismic loads were generated for the mezzanine and associated wood panel shear walls and hold-downs to the existing concrete foundation were designed. For the restroom structure, both wind and seismic loads were considered for the lateral system design. I assisted with creating design drawings which included plan views, details, and structural notes which specify all requirements for the project. I also coordinated with the architect when design changes were incorporated and answered all plan-check review comments.

The Carson Park EEE evaluation project was a structural condition survey completed at a condominium complex located in Carson City, NV.
Date of project: June 2025
I completed a site visit to evaluate the condition of various existing wood-framed balcony decks and steel/concrete stairs. Following the site visit, I drafted a report which documented the existing conditions of the balcony decks and stairs. I also made repair recommendations based on the deterioration that was observed on the wood, steel and concrete and included relevant photos of repair areas.

ANNA HENRY (18-899-62)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

SUMMARY

Engineering Experience after EAC degree
7 years, 6 months

Total Engineering Experience
7 years, 6 months

Experience under licensed engineer
7 years, 6 months

Disciplinary Action
None reported

EDUCATION

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

EXAMS

Fundamentals of Engineering (FE)
Nevada
April 2018

Principles and Practice of Engineering (PE)
Civil
Nevada
October 2019

LICENSES

Additional Licenses
None

ANNA HENRY (18-899-62)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

UES
Nevada (United States)
Project Manager
May 2018—November 2025

Verified by
Caitlin Walker Jelle
cjelle@teamues.com

Experience Summary
Full-Time
Engineering: 7 years, 6 months
Post EAC degree: 7 years, 6 months
Experience under licensed engineer: 7 years, 6 months

TASKS

I began work as a Staff Engineer in May 2018 and was promoted to Project Engineer in May 2021 and Project Manager in May 2024. Tasks and duties include developing and implementing environmental corrective action work plans under the direct supervision of Nevada certified environmental managers (CEMs) and PEs in order to conduct site-specific remediation activities in accordance with state and federal guidelines, and providing oversight and direction of release response and remediation activities. Tasks also include preparing quarterly groundwater monitoring reports for sites with active remediation systems utilizing several remediation technologies (i.e. groundwater pump and treat systems, soil vapor extraction systems, air sparging systems, etc.). I was tasked with interpreting site groundwater monitoring data, analyzing contaminant trends, modeling contaminant temporal and spatial fate and transport, calculating remediation system operation parameters, and making recommendations for future remediation activities in accordance with state and federal regulatory guidelines. I have prepared several post-remediation closure reports pursuing appropriate site-specific closure methods in accordance with state guidance and regulations. Tasks as a Project Engineer and Project Manager include developing and implementing sampling and analysis plans to characterize site-specific contaminant conditions and making decisions regarding additional investigation and remedial measures based on data analysis and field conditions. I have prepared remedial action plans for environmental contaminant handling and remediation associated with large-scale development projects. I have assisted in feasibility studies, design, operation, and optimization of soil and groundwater remediation systems.

REPRESENTATIVE PROJECTS

Remediation Feasibility Study, 2021: I served as the Project Engineer who prepared a Corrective Action Plan to assess feasibility of various remediation technologies to remediate petroleum contaminated soil and groundwater in order to design a full-scale remediation system. I evaluated the following factors as part of the feasibility assessment including contaminant chemical properties, magnitude and extent of contamination based on analytical sampling data, geologic and hydrologic conditions, land use, physical site constraints, and costs. I assessed three remediation alternatives including groundwater pump and treat, soil vapor extraction, and air sparging, and provided recommendations for selecting a design.

Remediation System Operation and Optimization, 2018 - 2025: I served as the Staff Engineer and Project Engineer responsible for evaluating operational parameters of several soil/groundwater remediation systems on a quarterly basis. I performed calculations to determine system runtime, contaminant mass recovery, airflows, and applied pressures in order to make recommendations for system optimization.

Remedial Action Plan, 2022-2025: I served as the Project Engineer and Project Manager who prepared a Washoe County Health District approved Remedial Action Plan (RAP) for a large-scale residential development located on a property with wide-spread mercury contamination. As part of the RAP, I defined procedures for mass site grading activities and soil sampling such that mercury impacted soil were not located within shallow site soils or within public roadways to limit exposure and protect human health. I reviewed and evaluated site grading plans and cut/fill locations to determine locations where mercury impacted soils could be placed onsite and capped with clean material. I provided construction oversight and support during mass grading, including participating in onsite meetings and creating exhibits showing soil sampling locations, to ensure onsite activities were conducted in accordance with the RAP.

ADAM KOVAC (21-053-50)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
11/14/2025

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
4 years, 4 months

Total Engineering Experience
4 years, 8 months

Experience under licensed engineer
4 years, 8 months

Other Experience

Disciplinary Action
None reported

EDUCATION

Bachelors in Sociology
University of Nevada, Reno
August 2008–May 2013

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

EXAMS

Fundamentals of Engineering (FE)
Nevada
March 2021

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

LICENSES

Additional Licenses
None

ADAM KOVAC (21-053-50)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Great Basin Bicycles
Nevada (United States)
Bike Mechanic
April 2012—December 2015

Verified by

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

DESCRIPTION

ADAM KOVAC (21-053-50)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

CFBR Structural Group and Sierra Steel
Nevada (United States)
Steel Detailer and Draftsman
January 2016—December 2020

Verified by

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

DESCRIPTION

WORK EXPERIENCE

CFBR Structural Group
Nevada (United States)
Project Engineer
January 2021—July 2021

Verified by
Matthew Fettig
matt@cfbrgroup.com

Experience Summary
Full-Time
Engineering: 6 months
Post EAC degree: 2 months
Experience under licensed engineer: 6 months

TASKS

I was responsible for establishing loading area maps, load analysis, load combinations and structural analysis of the custom residential structures. I designed diaphragms and selected appropriate lateral system layout and capacities for seismic and wind forces. I would calculate moment frame designs and anchorage to satisfy loading forces the residence would experience. I specified hardware and connections for all structural elements in the design of the structure; this included choosing between available vendor catalogs to meet different General Contractor preferences and pricing options. I created and compiled the calculation packages for the entirety of the projects I was on; which included the site specific criteria that complied with local jurisdiction, the full plan set of the custom residence, all framing members, material types, and construction tagged and information shown and referenced, appropriate details with connection specifications and weld callouts, vertical and lateral adequacy, and any required or requested additional calculations.

REPRESENTATIVE PROJECTS

Lahontan Lot 384 - Custom Residential build with Ryan Group Architects in Nothern California
I was responsible for creating the Revit model that would produce the Engineering drawings and call out location of all engineered and analyzed members. I also calculated and selected the structural members that would exist on the plans for the structure. I evaluated the connections for these members; this included hardware from Simpson Products, rafter calculations and spacing criteria, moment frame analysis through RISA 3d products. I also was responsible for designing other elements of the building like shear analysis for clips and nailing requirements for diaphragms, shear wall design, footing size and rebar requirements, through in house developed calculation sheets used by the office (Excel). I also was the representative for the firm to be on calls with the Architectural team, with a mentor present from my office to ensure the engineering design was in fact in line with expectation and acceptable. There were in-house reviews of my engineering work and help along the way to ensure what I was specifying for the design was indeed acceptable and reviewed.

Morton Residence - Another high-end custom home in the greater Reno area.
I was the engineer that set up all model layouts according to AOR drawings, and performed loading analysis, determined framing member sizes and material. I assembled the calculation packages for review and stamp by a principle engineer. I also created the details with all appropriate sizing, dimensions, connection, hardware layout, and connection requirements present for the job to be built.

Beloff Residence - Custom residence in Truckee California
I was responsible for taking the AOR concept drawings and creating the Revit model, analyzing the structure in the office standard excel templates, using RISA 3d for moment frame analysis, and using various supporting Mathcad sheets to prove out engineered member sizes, diaphragms and connections. I produced the full calculation set that was then reviewed by a senior engineer for stamp and seal.

Reynoso Residence - another custom residence in Montana.
I was trained by another Project Engineer on this as my first engineering project. This included sitting next to the other Project Engineer and watching the steps necessary to evaluate and produce project deliverables, calculation sets, and the ability to ask questions as to why certain things were considered or not during the process. He took me through how to establish the gridlines for lateral analysis later on in the project, common beam lines, approaches for framing layout, where to expect span limits and members to watch for deflection control. He explained how the office examined wind loading and how to use the office developed calculation sheet and the reasoning behind it. I had the opportunity to provide input of how I would approach something, then he would adjust or demonstrate how he would evaluate for the particular case.

WORK EXPERIENCE

Construction Specialties
Nevada (United States)
Product Development Engineer
August 2021—October 2025

Verified by
Kevin Wayne Smith
kevin.smith@synergillc.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

Construction Specialties (CS) has numerous patents for self-supporting Modular Stair Designs (MSS) and Drift Capable connections (DRC) to handle intrastory without damage or failure to the stairs. CS marketed the MSS and DR as a “product”, hence the job title description.
I was responsible for pre-sales engineering support. This included providing feasibility analysis to clients, answering AOR/SEOR integration questions, providing parameters for the in-situ states for the MSS during construction, preliminary member sizes and reactions, recommendations for foundation approach, allowable freestanding height limits. I would provide judgement for special loading considerations, tie back options to superstructure, expected drift at main floor levels of stair systems, phasing of install for MSS units versus superstructure steel and floor diaphragms.
I was an active engineer designing MSS units. Engineers on staff were assigned their own projects and responsible for all aspects. Including: engineered design, calculation packages, answering redlines, and providing solutions for construction deviations. Given the two primary life states of MSS units, I would prepare two sets of calculations: construction phase and then final state as in-place stair. This included analysis of varying loading conditions, design of members, connections, tie-backs, anchorage to concrete, validating drift compliance with main structure, specifying DRC drift expectation and clearance needs with building. The most complicated element of the engineering was developing an accurate method to analyze our MSS stiffness relationship to the superstructure rigidity to predict drift effects without needing to model it in analysis software.
I was involved with two large scale research projects via CS through University of California San Diego. These responsibilities included engineering design, interpretation of test results, development and invention of new drift compatible approaches for stair systems. I was involved on the engineering team for NHERI Tallwood; and I served as lead engineer for CFS 10 representing CS.

REPRESENTATIVE PROJECTS

NHERI Tallwood - a 10 story Mass-Timber structure with rocking wall panels and MSS and DRC units. I did calculations for tie back connection from stairs to the test structure, I calculated reactions for the stairs at rest and normal load conditions. I predicted expected behavior of our stair system due to predetermined ground motions: Northridge, Loma Prieta, Tohoku, Chi-Chi. I contributed to the analysis of the results, that were then published in a research paper for the World Conference on Earthquake Engineering.

NHERI CFS 10 - 10 Story Cold Formed Steel structure with MSS units with some revised DRC. I served as the lead engineer for this project on behalf of CS. I created the calculation packages and calculations for supplemental details. I created the joint layout to meet expected intrastory drift values for selected ground motions. I developed a connection methodology to lock and unlock the drift capable joints in order to compare a “rigid” versus “free” stair-system. This allowed research team to better compare the spectral response of a traditional stair to a seismically compliant stair. I developed two alternative drift compliant stair-landing connections, from observed results from Tallwood. I developed two different connection approaches to try and address grabrail fragility.

List of Papers listed as co-author:

Performance of a 10-Story Steel Stair Tower Within the NHERI Tallwood Project

Design Strategies and Modeling Verification for Steel Stairs with Drift-Compatible Connections

Seismic Behaviour, Observed Performance, and Design of Stair Systems: State-of-the-art

Influence of Stair System Flexibility on Building Vibration Period; Insights from Full-Scale Building Shake Table Tests at Low-Amplitude Excitation

MSS Template – I created the set of calculations that outlined what estimating, sales and detailing used for preliminary member sizes, limits for member upsizing, connection capacities, free-standing height parameters, decking specifications, and set hard limits on when engaging an engineer was required. This template was reviewed by the engineering manager and engineering team for release.

For following projects, I was the primary engineer and acted as a project manager. I created the full calculation sets for review and stamp by appropriate senior engineer. These calculations included all members and stair units, connections, anchorage to foundation, tieback capacities and details. The calculations also considered construction versus final state of stairs. I was responsible for managing the project timeline and submission of deliverables, and cost considerations. I was present on project team calls to represent CS's interests for matters concerning engineering, detailing, deliveries of products to site and install activities.

23 Springs – high rise project in Texas consisting of 2 main stair towers from basement to top of building, 28 stair units, 1 garage only irregular stair system of 6 stair units, and 2 stair systems which serviced other portions of the building for 4 units a piece. I also had to custom design composite member shapes to act as concrete beam and diaphragm pour stops in construction. A large portion of this project required that I design temporary structural supports for perimeter bands and stair framing for in situ states of construction activities.

BSWH Frisco Hospital – hospital project in Texas with 2 stair towers of 3 stories. Superstructure consisted of concrete columns and floors.

Coresite NY3 – project in New Jersey that comprised of 2 stair systems each 3 stories each. Superstructure was steel construction with concrete fill over metal decking.

CT Children's Hospital – hospital project in Connecticut consisting of a single stair tower system 10 stories tall. Superstructure was primarily steel with concrete fill over metal deck construction.

Frontier Valley – Texas project with 2 stair towers, each 5 stories each. Interfaced with a pedestal base and wood framed structure above.

Merck MACS – project in New Jersey which consisted of 3 stair towers, each 4 stories tall. Superstructure primary construction was steel with concrete fill over metal deck.

Merck Rahway – project in New Jersey which consisted of 2 stair towers, each 7 stories each. Superstructure primarily steel construction with concrete fill over metal deck.

Vantage CA 31 – California project consisting of 3 external stair towers 4 stories tall, with split stair units due to story heights; 1 internal stair tower 4 stories tall with split units due to story heights.

ANDREW LOGAN (21-537-41)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
12/02/2025

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
4 years, 8 months

Total Engineering Experience
4 years, 8 months

Experience under licensed engineer
4 years, 3 months

Disciplinary Action
None reported

ABET EAC

FE EXAM

PE EXAM

4+

EDUCATION

Associates in Science
Southern Utah University
August 2015–January 2019

Bachelors in Mechanical Engineering (EAC)
Southern Utah University
August 2015–December 2020

EXAMS

Fundamentals of Engineering (FE)
Utah
January 2021

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

LICENSES

Additional Licenses
None

WORK EXPERIENCE

MCM Engineering II
Utah (United States)
CAD/CAM Programmer
March 2021—August 2021

Verified by
Alex Ross Judd
Alex@mcmeng2.com

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

TASKS

My experience at MCM Engineering II was focused primarily on manufacturing engineering, focusing on CAD/CAM programming for electrical switchgear and cabinetry production. I held a full-time position as a CAD/CAM Programmer throughout my employment, and this was my sole role during that period. In this capacity, I was responsible for the design and processing of design components, including creating and refining CAD models and preparing CAM programs for automated/manual manufacturing. My duties also included monitoring CAM processing to identify potential errors and minimize material waste, ensuring efficient and accurate production workflows. This role was 100% engineering and design, with no non-engineering responsibilities.

REPRESENTATIVE PROJECTS

Sheet Metal Storage Rack | Internal Manufacturing Improvement Project | Cedar City, Utah, USA | Design | CAD/CAM Programmer

My responsibilities included supporting the manufacturing of electrical switchgear and cabinetry, providing options to increase manufacturing efficiency, and align with LEAN manufacturing principles. These efforts streamlined operations and enhanced overall manufacturing efficiency.

I analyzed the existing material storage conditions within our electrical switchgear manufacturing facility and identified inefficiencies related to space utilization and material accessibility. Based on my analysis, I proposed a design aimed at reducing the material stock footprint while improving access to full sheet metal inventory.

To address these challenges, I designed a modular sheet metal storage system to enhance material handling efficiency, significantly reducing labor waste associated with retrieving buried stock. This solution optimized warehouse layout and. My responsibilities included precise measurement of the warehouse space, development of detailed CAD models, and integration of design features that supported streamlined operations.

To ensure structural integrity and reliability, I performed Finite Element Analysis (FEA) on critical components of the design and built in a factor of safety that took into account the harsh conditions the final design would need to account for. Throughout the project, I collaborated closely with floor operations managers to align the solution with the company's workflow and production requirements.

CAD/CAM File Identification and Processing Improvement Project | Internal Design Process Improvement Project | Cedar City, Utah, USA | Design/Automation | CAD/CAM Programmer

My responsibilities included supporting the design of electrical switchgear and cabinetry, preparing design files for automated and manual production, and monitoring CAM programming for potential errors or material waste. These efforts streamlined operations, improved data integrity, and enhanced overall manufacturing efficiency.

For this project, I identified inefficiencies in the design and processing workflow for electrical switchgear components, specifically related to missing or broken CAD/CAM files that caused delays and increased manual rework time. To address this issue, I proposed and implemented a solution that automated the detection of incomplete or corrupted design files and CAM processing instructions. This improvement significantly reduced time spent searching for missing data and minimized production interruptions.

As part of this initiative, I adapted and integrated a user-friendly program into the existing design process. The tool provided real-time alerts to designers when files were missing or broken, enabling immediate corrective action and ensuring continuity in automated manufacturing workflows.

WORK EXPERIENCE

Alliance Consulting
Utah (United States)
Staff Engineer
August 2021—April 2023

Verified by
Deloss Steed Hammon
dsh@allianceconsulting.us

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

TASKS

My time at Alliance Consulting was dedicated entirely to civil engineering and design (100% engineering responsibilities). My role as Staff Engineer was a full-time position and the only position I held during my time at Alliance. I worked with a skilled team of engineers and designers, collaborating closely with our senior engineers to develop large-scale land development plans and help guide clients through the design and construction process.
My primary duties included preparing detailed engineering drawings, details and phasing plans for construction, planning approvals, and permitting. Additional duties included preliminary design and existing condition data aggregation for project rendering, which proved to help difficult projects gain regulatory approval and client acceptance at a quicker pace.
At Alliance, I specialised in civil engineering design, with a focus on complex roadway design and site planning using Autodesk Civil 3D. Additional responsibilities included performing vehicle tracking analyses to ensure emergency service accessibility, creating as-built records of existing utilities and site features, conducting photometric analyses to verify compliance with local dark sky ordinances, processing project specifications and compiling engineering cost estimates for multiple projects, and conducting field investigations to document existing conditions for design context. During construction, I prepared survey stakeout files and exhibits to actively support on-site construction and performed site visits under the supervision of senior engineers to learn ways to ensure quality control on-site. This position provided me with the opportunity to gain a deep understanding of land development processes, site planning and design requirements, and crucial civil engineering design basics.

REPRESENTATIVE PROJECTS

Tech Ridge Development: (Master Plan Development) I St. George, Utah, USA I Design I Staff Engineer I August 2021- April 2023

I was part of a small team that developed a multi-use master plan for a commercial/residential project on a mesa in Southern Utah. In this project, I served as a Staff Engineer and was responsible for a range of civil engineering design tasks. For this project my responsibilities included designing and preparing site grading plans, preparing exhibits and cut/fill analyses to support regulatory compliance for hillside permitting. I also helped design a multi-use trail system along the mesa rim and proposed pedestrian bridge placements over access roadways to improve pedestrian mobility. Due to the complexity of existing site conditions, I regularly had to create and revise grading designs looking at grading constraints and large picture impacts of each grading decision I made. Additionally, I developed site layouts and created 3D models to visualize design concepts for client presentations.
As part of this project effort, I worked on an adjacent subdivision, Black Ridge Cove, where I verified and set pad elevations, designed site drainage systems, grading plans, and amenity layouts to ensure proper drainage, functionality and aesthetic appeal.

Copper Rock Parkway I Copper Rock, Hurricane, Utah, USA I Design I Staff Engineer I June 2022 – April 2023

In this project, I served as a Staff Engineer and was responsible for a range of civil engineering design tasks. My work on this project included designing and modeling multi-level retaining walls to accommodate large elevations changes due to roadway placement and design, designing site grading and utility layouts, calculating earthwork quantities, performing site visits to evaluate existing soil conditions to coordinate seamless integration of retaining walls into existing rock formations, 3D modeling and rendering of proposed designs for client presentations, and USPS coordination for residential mail receptacle locations and quantities.

Spring Valley - Master Plan Development I Eagle, Idaho, USA I Design I Staff Engineer I October 2022 -April 2023

In this project, I served as a Staff Engineer and was responsible for a range of civil engineering design tasks. My work on this project included developing site and roadway grading plans to ensure proper drainage and compliance with governing design standards (ADA, local hillside committee). I prepared storm drain layouts for the effective management of stormwater runoff and prepared signage and pavement marking plans to support safe and efficient traffic flow. Additionally, I created roadway sections, plan, and profile drawings.

To support visualization and client communication, I performed master plan modeling and developed 3D renderings of the proposed site, as well as 3D modeling of a nearby sports and recreation park. I also conducted site lighting calculations to verify compliance with illumination standards.

ANDREW LOGAN (21-537-41)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

TYLin International
Nevada (United States)
Civil Engineering Designer
May 2023—December 2025

Verified by
Darren Then
darren.then@tylin.com

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

TASKS

Responsible for design and plan production for various civil aviation, road & highway, and rail projects (100% Engineering Discipline). My role (Civil Engineering Technician) is 100% an engineering and design role. Duties include civil engineering design, working closely with a team of senior engineers to produce infrastructure improvement, and design plans, plan reviews/approvals for local water municipalities, and project management services.

I've had the opportunity to shadow three key and experienced mentors (Nelson Stone, P.E., Darren Then P.E., & Sam Dunnam, P.E.) in various tasks and responsibilities, while providing our office and national team key CAD support for digital plan production and project design.

My time working with Darren Then, P.E., who is an experienced senior engineer with almost thirty years of experience working at LAS, has been instrumental in my growth as a young EIT. Under his mentorship, I have been tasked with the responsibility to plan, organize, and execute detailed civil plan designs ranging from demolition plans to construction phasing and civil improvement plans.

Additionally, I have assisted in program management for a local water purveyor under the supervision of Nelson Stone, P.E. Responsibilities include reviewing residential and commercial improvement plans, coordinating state agency project approvals, performing hydraulic analysis and modeling for over 100 new projects, and managing documentation for project acceptance.

I have been given the opportunity to train other team members in civil design software commonly used in the AEC industry and have been tasked with transforming high-level directives from senior engineers into complete design plan packages. Typical project tasks include preparing civil plans, performing cut/fill calculations and creating exhibits, designing site grading plans, roadway layouts, site configurations, and wet and dry utility layouts with associated profiles. Additionally, I maintain responsible charge for managing design file libraries and implementing best practices for cloud storage.

REPRESENTATIVE PROJECTS

Penn Coach Yard Trainset | Heavy Maintenance Facility | Philadelphia, Pennsylvania, USA | Rail & Transit | Design | Civil Engineering Designer | March 2025 - Current

Served as a key civil engineering designer on a complex, large-scale infrastructure project involving multiple design packages and a mid-sized, multi-disciplinary team. Responsibilities included comprehensive site and rail grading, utility coordination (wet and dry utilities including water, sewer, gas, and electric), and the identification and resolution of conflicts arising from the integration of new utilities with existing infrastructure, as well as adjustments required due to site layout and usage changes.
Assisted in the design of site drainage systems, ADA-compliant roadway and site geometric layout, and utility rehabilitation planning. Played a pivotal role in coordinating with cross-functional disciplines to ensure seamless integration of geometric design, utility systems, rail infrastructure, and grading elements. Contributed to the successful delivery of phased design packages under tight deadlines, demonstrating strong technical design skills and collaborative problem-solving in a high-demand, large-stakeholder environment.

North Las Vegas Airport (VGT), Building Demolition | Las Vegas, Nevada, USA | Aviation | Design | Civil Engineering Designer | May 2023 – Current

For this project, I served as a lead CAD designer in my role as a Civil Engineering Designer. The project included the demolition of three airside hangars and one landside agency building, along with the replacement of approximately 8,000 square yards of deteriorated asphalt pavement, removal of existing foundations, and hardscape, with the design of new AC pavement and airfield

striping and markings. Responsibilities for this project include site visits and documentation of existing conditions, demolition plan preparation, utility removal coordination and design, site plans and regulatory compliance, phasing plan preparation, water main extension and hydrant installation design, quantity calculations. During this project I identified and decided locations for existing utilities to be demolished, abandoned, protected in place, or installed as required for the demolition of three existing airfield hangars and an existing landside agency building. A part of this effort was the relocation of certain services that were to remain online, which would be impacted by the demolition of previously mentioned buildings. Additional responsibilities include the coordination of potholing efforts and plan documentation of discoveries.

Harry Reid Airport (LAS), Power Improvements at LAS | Las Vegas, Nevada, USA | Aviation | Design | Civil Engineering Designer | May 2023 - January 2025

For this project, I served as an assisting CAD designer in my role as a Civil Engineering Designer. Project included design services for power upgrades to the LAS Terminal 1 Radial loops A/B and Gold Garage. Scope of work included plans, specifications for the installation of two new electrical substations near Terminal 1 and a new switchyard located in the T1 Central Plant Parking Lot. My role included site visits and documentation of existing conditions, preparation of civil plans, and design of proposed utilities. During the design of this project, I proposed design options to relocate an existing 15” VCP Sanitary Sewer line and a 10” water main around a proposed switchyard footing. Loading conditions of the switchyard wall warranted the need for relocation of wet utilities around the influence of loading from the wall footing. Keeping with the standards of local municipalities, I proposed ways to relocate the two wet utilities while mitigating utility intersections and major cost increases from concrete encasement as well as excessive pipe fitting & structure quantities.

SHRADHA PANDA (21-010-09)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
11/05/2025

Citizenship
India

SUMMARY

Engineering Experience after EAC degree

Total Engineering Experience
3 years, 8 months

Experience under licensed engineer
3 years, 8 months

Disciplinary Action
None reported

EDUCATION

Meets NCEES Engineering Education Standard

Bachelors in Civil Engineering
National Institute of Technology - Tiruchirappalli
August 2014–May 2018

Masters in Civil Engineering
University of Texas, Austin
August 2018–December 2020

EXAMS

Fundamentals of Engineering (FE)
Connecticut
May 2022

Principles and Practice of Engineering (PE)
Civil
New Jersey
June 2025

LICENSES

Additional Licenses
None

WORK EXPERIENCE

Siefert Associates LLC
Connecticut (United States)
Assistant Project Engineer
April 2021—March 2023

Verified by
Ram Kasturi
rkasturi_99@yahoo.com

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

TASKS

I was responsible for the following tasks and duties as an assistant project engineer working under a registered PE:
1. I observed geotechnical investigations, characterized soil and rock samples, drafted boring logs, and analyzed laboratory soil test-data.
2. I prepared Geotechnical Investigation reports and Foundation Design Reports which included summary of field investigation, development of sub-surface soil profile, evaluated design soil parameters, seismic evaluation of project site, foundation recommendations, summary of design calculations, and construction considerations.
3. I performed geotechnical analyses including soil settlement, bearing capacity, basal heave susceptibility, lateral earth pressure, and seepage as per state building codes, NAVFAC and FHWA guidelines.
4. I performed geo-structural analyses like deflection, flexure and shear of steel and timber components as per AISC Steel guidelines and NDS timber specifications respectively.
5. I analyzed surcharge and soil loading effects and deflection of PVC and reinforced concrete conduits as per ASTM D3034 and American Concrete Pipe Association Design Manual respectively.
6. I utilized various Geotechnical Engineering software including LPILE, APILE, GROUP and GRLWEAP software for deep foundation design.
7. I performed geotechnical design and analysis by modelling existing and proposed project conditions in SLIDE2 (slope stability analysis), and DeepEx (Support of Excavation, SOE) along with hand calculations on MathCAD/MSExcel based on record drawings and field verification.
8. I prepared detailed Geotechnical proposals based on specific project scope of work along with estimated cost for the field investigation and for the engineering design efforts.
9. I developed drawings, calculation packages, and compiled design submittals for the following:
A. Deep foundations like H-pile, pipe pile, micropile
B. SOE like sheet pile wall, soldier pile with lagging, cofferdam, shoring, and associated connection design
C. Retaining walls, tiebacks, soil nail walls, MSEW structures
D. Dunnage for cranes with outrigger loading and track loading along with underlying utility protection

REPRESENTATIVE PROJECTS

1. Embankment Design
• Route 2 Bridge Improvements - GRS Wall Design - E. Hartford, CT
• April-June'21
• I designed and performed calculations for geosynthetically reinforced soil (GRS) embankments. Based on review of contract drawings, I modeled project conditions using SLIDE2 software and NAVFAC DM7.2 manual to evaluate the slope stability concerns and settlement potential. I also performed feasibility analysis for using geofoam as alternative backfill material to reduce anticipated embankment settlement.
2. Retaining Wall Analysis
• Anchored Deadman & Modular Wall Design - Naugatuck, CT
• June- August'21
• I engineered anchored timber and modular concrete retaining wall systems adhering to NDS and FHWA design standards. I performed calculations to determine the optimal number and location of timber tieback-deadman anchors and designed the structural connections. I compiled working drawings, preliminary site layout, and notes for construction, drainage, and materials.
3. Utility Building and Watchtower Design
• Anchored Shotcrete Wall Design - Mt. Kisco, NY
• July-October'21
• I conducted field oversight for subsurface investigations and compiled a geotechnical design report. I designed shallow foundation, and evaluated seismic and lateral earth pressure design parameters, along with analyzing the bearing capacity, settlement, and liquefaction potential. I designed an anchored retaining wall and developed working drawings that detailed bond

length, material specifications and load testing schedule with procedures and acceptance criteria.
4. Crane Dunnage Design
• LGA Concourse-E Airfield Reconfiguration - Ground Bearing Analysis - Queens, NY
• October-November'21
• I derived a design soil profile based on project boring logs. I performed a load path analysis, evaluated the bearing capacity of subgrade soils and designed a timber crane mat (dunnage) for proposed crane layouts.
5. Shared-use Path Design
• Kew Gardens Interchange Improvement Project - GRS Slope Design - Queens, NY
• December'21-March'22
• I designed a GRS sloped embankment to support a shared-use path, per NYSDOT and AASHTO LRFD standards. My role involved conducting bearing capacity, settlement, and both static and seismic slope stability analyses. Per a detailed review of contract drawings and site contours, I developed a complete set of working drawings detailing geosynthetic reinforcement requirements (tensile strength, length, spacing, number) along with site layout, cross-sections and detail views. I also included recommendations for backfill selection, foundation preparation, slope facing, drainage and soil erosion control measures.
6. Retaining Wall Assessment
• Independence Avenue & Douglaston Condominiums - Bronx & Queens, NY
• January'22-December'22
• My responsibilities included:
– Reviewing record plans
– Performing visual inspections to collect existing measurements and assess the condition of the wall
– Conducting subsurface investigations
– Perform back-analysis to obtain pertinent dimensions, and prepare a field verified drawing set
– Performing static and seismic global, internal, and external stability analyses of the walls using SLIDE2 software and NAVFAC design procedures
– Highlighting deficiencies, assign a wall rating, propose long-term monitoring plans and present recommendations to improve long-term stability
– Preparing and filing necessary geotechnical design reports, permits, and assessment forms for NYCDOB's approval
7. Foundation Design
• Multi-Story Parking Garage & Commercial Building- Yonkers, NY
• June'22-January'23
• I designed the foundation for a multi-story parking garage and a commercial structure using drilled micropiles and H-piles. My responsibilities included:
– Performing subsurface investigation and preparing a geotechnical design report
– Modeling pile designs in GROUP software based on client-provided structural loads
– Analyzing compression/uplift loads, moments, and lateral deflection against LRFD geotechnical and structural resistances
– Specifying minimum requirements for all foundation components, including pile and pile cap dimensions, fixity conditions, materials, and spacing
– Developing a foundation design report complete with drawings, calculations, construction sequence, pile load testing information and QA/QC notes
8. Utility Protection Plan
• Gordie Howe International Bridge Phase 1 - Detroit, Michigan & Ontario, Canada
• December'22-March'23
• I performed crane surcharge analysis for steel girder erection, focusing on impacts to underground utilities. My responsibilities included evaluation of soil bearing capacity, soil settlement potential, dunnage bearing capacity, and the structural integrity of buried RCP and PVC pipes. I designed dunnage according to NDS and AISC specifications for shear, bearing, and flexure.

WORK EXPERIENCE

Kleinfelder Inc.
Massachusetts (United States)
Geotechnical Staff Professional-I&II
April 2023—August 2024

Verified by
Bruce Stegman KLEINFELDER
bstegman@kleinfelder.com

Experience Summary
Full-Time
Engineering: 1 year, 4 months
Experience under licensed engineer: 1 year, 4 months

TASKS

I was responsible for the following working under the supervision of a registered PE:
1. I prepared geotechnical reports, drawings, and specifications for dewatering, excavation support, soil compaction, backfill, rock excavation, geotechnical instrumentation, foundations and earthwork for diverse projects across public and private sectors including transportation, waterworks, energy, and commercial infrastructure.
2. I assisted project managers with budget tracking, client and interdisciplinary coordination, and project management tasks.
3. I prepared proposals and scope of work along with estimated cost for field investigation and geotechnical design efforts.
4. I planned, executed, and managed geotechnical investigation programs including assigning laboratory testing.
5. I prepared permitting applications for access to critical infrastructure easements, street opening permits, and traffic management plans.
6. I prepared Geotechnical Design reports which included summary of field investigation, development of sub-surface soil profile, design soil parameters, seismic evaluation of project site, foundation recommendations, summary of design calculations, and construction considerations.
7. I performed geotechnical analyses including soil settlement, bearing capacity, lateral earth pressure, slope stability, pavement design, liquefaction susceptibility, frost depth, and slab-on-grade design, as per state building codes, DOT manuals, NAVFAC and FHWA guidelines.
8. I designed support of excavation systems using DeepEx software and CalTrans Trenching and Shoring manual.
9. I provided preliminary deep foundation design parameters for axial capacity, lateral capacity, and drivability analyses using software like LPile, APile, Driven, GRLweap and FHWA design guidelines.
10. I reviewed field logs, field reports, laboratory soil and rock test data, geotechnical reports, contractor submittals and RFI requests.
11. I performed construction observation and used engineering judgement to take field decisions during micropile installations, micropile load testing, and support of excavation installation, ensuring adherence with contract drawings and specifications.
12. I provided guidance to junior staff on boring termination, soil sampling, micropile observations, material and site characterization.

REPRESENTATIVE PROJECTS

1. Temporary Support of Excavation(TSOE) Design
• Building Demolition-Ontario, CA
•April-July'23
•I designed a TSOE using the CalTrans Trenching and Shoring Manual and by modeling existing and proposed project conditions using DeepEx software. I analyzed geotechnical data from subsurface investigations, selected an appropriate TSOE (soldier pile and lagging wall), performed stability analyses, completed engineering calculations related to lateral earth pressures, surcharge loads, structural design of TSOE components (H-piles and timber lagging), and prepared a submittal containing working drawings, quality control notes, and instrumentation plan for the contractor's means and methods.
2. Mixed-Use Redevelopment
• Geotechnical Design-Naugatuck, CT
• July-November'23
• I performed field oversight and assigned laboratory testing for soil index and corrosion potential. I developed recommendations for tunnel abandonment, slab excavation, and support of proposed utilities. I calculated lateral earth pressure parameters for excavation support systems, and designed pavement sections for heavy-vehicle loads. I prepared the geotechnical report which included summary of field investigation, development of subsurface soil profile, design soil parameters, seismic evaluation of project site, and construction considerations.
3. Water Main Rehabilitation
• Utility Bearing Support-Wilmington, MA

• November’23-Jan’24
• I coordinated subsurface investigations, assigned laboratory testing, performed quality control checks and prepared contract specifications. I prepared the geotechnical report which included summary of field investigation, development of subsurface soil profile, design soil parameters, seismic evaluation of project site, pipe support recommendations, and construction considerations.
4. Bridge Replacement
• Foundation Design-Mount Desert, ME
• March-May’24
• I performed quality control reviews of field and lab data. I evaluated frost penetration depth, lateral earth pressure parameters, and lateral resistance parameters for L-Pile analysis.
5. River Slope Stabilization
• Gabion Wall and Pavement Reconstruction-Dover, NH
• December’23-April’24
• To meet aesthetic and sustainability goals while minimizing utility relocation, I selected a gabion wall. For its design, I used SLIDE2 for slope stability analyses, and evaluated its bearing capacity, settlement, sliding resistance and frost embedment depth. I specified requirements of appropriate gabion basket materials, rock fill, toe key, bench dimensions and filter fabric. I performed calculations for flexible pavement design, seismic design category, lateral earth pressures, and provided recommendations for excavation support, dewatering, wall construction, and remedial earthwork. I performed a site visit to verify design assumptions.
6. Water Treatment Facility
• Tank, Filter-Tower and Pump Station design-Barnstable, MA
• February-May’24
• I managed and executed geotechnical investigation for a new 11,000-sq.ft. water treatment facility-from budgeting through preliminary design. I prepared pre-drilling permit applications, provided oversight during subsurface investigation, collected soil, rock and groundwater samples, liaised with design teams and stakeholders. I prepared and analyzed laboratory programs and drafted the preliminary design report that included recommendations for potential geologic hazards, below-grade wall construction, foundations, remedial earthwork, and excavation support to support the new infrastructure and improve flood resiliency. I performed geotechnical analyses, including foundation design (bearing capacity, settlement), liquefaction susceptibility, and evaluated parameters for frost protection, seismic design, and lateral earth pressure.
7. Permanent Interconnection to Regional Water-Supply
• Trenchless Design-Wayland, MA
• February-August’24
•I planned, provided field oversight, and tracked the budget for subsurface investigations to assess the feasibility of trenchless installation for a 5,000-foot transmission main within a pressurized aqueduct corridor, and to support the design of a new 3.5 MGD pump station, water treatment plant, and the upsizing of 8,000-feet of water mains along an existing state roadway. I prepared boring location plans and evaluated the number and depth of borings, geotechnical sampling requirements, and termination criteria. I secured agency encroachment permits, performed boring markouts, coordinated utility clearances for borings, drafted health and safety plans, performed geotechnical and environmental sampling, characterized subsurface profiles, and assigned laboratory testing.
8. Main Intercepting Sewer (MIS) Diversion Structure
• Drilled Micropiles, Excavation Support and Geotechnical Monitoring-Springfield, MA
• May’23-August’24
• I reviewed shop drawings and contractor submittals, responded to RFIs, and performed construction observation of excavation support systems and drilled micropiles. This work was for diversion valve structures founded on deep foundations, connecting river-crossing wastewater pipelines to the city's main treatment facility. I reviewed and analyzed data collected from geotechnical instrumentation and monitoring systems and presented data to USACE stakeholders. I observed pile load testing program and analyzed load test results to assess approval of production piles.

WORK EXPERIENCE

Resource International, Inc.
Ohio (United States)
Geotechnical Staff Engineer
August 2024—January 2025

Verified by
Daniel Edward Karch
danielk@resourceinternational.com

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

TASKS

Level of Responsibility: I was responsible for the following tasks and duties as a staff geotechnical engineer-in-training working under the supervision of a registered PE:
1. Planning geotechnical investigations in close coordination with drilling department, providing office support to field staff regarding termination and sampling criteria.
2. Reviewing field data, lab data and as-drilled boring location plans as a form of quality control, analyzing laboratory soil test data, drafting geotechnical report, performing engineering analysis, identifying potential problematic subsurface conditions, along with delineating the recommendations and construction considerations for transportation and storm-water utility projects.
3. Performing geotechnical engineering analyses to provide preliminary engineering design parameters for the design of shallow and deep foundation, retaining wall, tieback anchors, as well as soil settlement estimation, bearing capacity evaluation, static lateral earth pressure calculations, and subgrade analysis as per latest AASHTO LRFD Bridge Design Specifications (BDS), Ohio Department of Transportation (DOT) Bridge Design Manual (BDM), Ohio DOT Geotechnical Design Manual (GDM) guidelines.
4. Preparing cost estimates and fee proposals, coordinating with clients, and attending project kick-off meetings.

REPRESENTATIVE PROJECTS

I performed the following tasks under the supervision of and prepared draft reports for the review by a registered PE:
1. Bridge Replacement
• Preliminary Structure Foundation Exploration Report - Cleveland, Ohio
• August - November ’24
• I compiled the preliminary geotechnical design report and appendices. I assigned a geotechnical laboratory testing program on representative soil samples to determine their index and engineering properties. I performed quality control reviews of the field boring logs and lab results. Based on this data, I delineated the soil stratigraphy profile within the bridge alignment including anticipated groundwater elevations. I evaluated the anticipated settlement from the proposed embankment fill using Terzaghi’s 1-D consolidation theory, estimated the seismic site class of the project area as per ASCE 7-10, and drafted construction considerations for earthwork, excavation support, dewatering and recommendations for future work. I performed analyses to develop design recommendations for the embankment/pier foundation and earth-retaining structures. For the proposed bridge abutment and piers supported on deep foundation alternatives, I have estimated the following as per AASHTO LRFD BDS and Ohio DOT BDM:
– Preliminary driven pile (Cast-In-Place CIP) design recommendations comprising of pile dimensions, type, length, individual ultimate bearing value, LRFD strength limit state resistance factors along with pile drivability analyses and construction considerations;
– Preliminary drilled shaft recommendations comprising of minimum shaft lengths, nominal bearing resistance, LRFD strength limit state resistance factors, spacing, group efficiency factors, lateral design parameters and construction considerations.

For the proposed bridge abutment supported by permanent mechanically stabilized earth walls or anchored soldier pile with lagging systems, and temporary excavation support systems, I have estimated the following as per AASHTO LRFD BDS and Ohio DOT Supplemental Specifications:
– Preliminary design parameters for anchored soldier pile and lagging walls comprising of design unit grout-ground bond stress, LRFD strength limit state resistance factors, as well as embedment criteria for the tieback anchors;
– Design lateral earth pressure parameters of below grade walls and excavation support walls for short term and long term loading conditions.

2. Storm Sewer Replacement
• Greater Cincinnati Water Works Storm Sewer Improvements - Cincinnati, Ohio
• September - October ’24
• I compiled the geotechnical design report and appendices. I assigned a geotechnical laboratory testing program on

representative soil samples to determine their index properties. I performed quality control reviews of the field boring logs and lab results. Based on this data, I delineated the soil stratigraphy profile within the sewer alignment including anticipated groundwater elevations. I also provided recommendations for pipe support focusing on open cut sewer installation, managing groundwater during construction, along with backfill and compaction requirements. I performed analyses to provide design lateral earth pressure parameters for excavation support systems.

3. Culvert Replacement
• Cook Road Culvert Replacement - Olmsted Township, Ohio
• December'24 - January '25
•I drafted the cost estimate and fee proposal, coordinated client communication, provided support to field staff, and compiled the geotechnical design report and appendices. I assigned a geotechnical laboratory testing program on representative soil to check for the presence of granulated slag and also determine their index and geochemical properties. I performed a quality control check on the field boring logs, pavement core data sheets and lab results. I delineated the soil stratigraphy profile across the project limits including anticipated top of bedrock elevations and groundwater elevations. I used field and laboratory data to perform engineering analyses and developed design parameters for the proposed foundations of the new headwall and wingwall structures. Analyses included estimation of frost depth, nominal bearing resistance, settlement, and lateral earth pressure parameters. I also performed a subgrade analysis of the pavement within the project limits per Ohio DOT GDM and provided pavement subgrade recommendations comprising of average site parameters, subgrade design parameters such as California Bearing Ratio (CBR) and resilient modulus along with relevant stabilization options. I provided recommendations for construction, addressing backfill and slag disposal, excavation support and dewatering.

ADDITIONAL INFORMATION

TIME GAPS

Start Date	End Date	Explanation
February 2025	October 2025	I took a planned career break to relocate, and support my family through a significant personal matter.

CREDENTIALS EVALUATION - ENGINEERING

PANDA, SHRADHA
(21-010-09)

DEGREES EVALUATED

Institution/Degree	Country	Language	Courses
National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering 08/01/2014 — 05/01/2018	India	English	51
University of Texas, Austin / Masters in Civil Engineering 08/01/2018 — 12/01/2020	United States	English	None

COMPARABILITY SUMMARY

Outcome: Equivalent

Area	Hours	Deficiency
Math/Science	36 / 32	None
Engineering	87 / 48	None
General Education	9 / N/A	None
Elective/Other	28 / N/A	None

MATH/SCIENCE

Specified Criteria Hours: 32

Course	Institution/Degree	U.S. Credits
Calculus I	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Calculus II	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Chemistry I	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Chemistry II	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	4
Engineering Mechanics	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Fluid Mechanics	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	4
Numerical Methods	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Physics I	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Physics II	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	4
Probability & Statistics	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Solid Mechanics	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
	Total semester credit hours earned:	**36.00**

Specified Criteria Hours: 48

Course	Institution/Degree	U.S. Credits
Advanced Foundation Engineering	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Advanced Strength of Materials	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	4
Coastal Engineering	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Concrete Structures I	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	4
Concrete Structures II	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	4
Earthquake Engineering	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Earthquake Resistant Design of Structures	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Electrical & Electronic Engineering	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	2
Energy & Environmental Engineering	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	2
Environmental Engineering I	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Environmental Engineering II	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	4
Foundation Engineering	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Geotechnical Engineering I	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	4
Geotechnical Engineering II	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Hydraulic Structures	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Hydraulics	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Industrial Wastewater Treatment	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Matrix Analysis of Structures	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Mechanical Engineering	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	2
Project	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	6
Steel Structures	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3

Strength of Materials	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	4
Structural Analysis I	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Structural Analysis II	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Transportation Engineering I	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Transportation Engineering II	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Water Resources Engineering	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
	Total semester credit hours earned:	**87.00**

GENERAL EDUCATION

Specified Criteria Hours: N/A

Course	Institution/Degree	U.S. Credits
English I	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
English II	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Management	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
	Total semester credit hours earned:	**9.00**

ELECTIVE/OTHER

Specified Criteria Hours: N/A

Course	Institution/Degree	U.S. Credits
Building Planning	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	2
Computer Programming	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Concrete Technology	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Construction Management	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Cost Estimating	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	2
Elective Courses	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	2
Engineering Graphics	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Industrial Economy	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Remote Sensing	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	3
Surveying	National Institute of Technology - Tiruchirappalli / Bachelors in Civil Engineering	4
	Total semester credit hours earned:	**28.00**

Total Semester Credit Hours Earned: 160

PROCESS DESCRIPTION

All education is compared to the NCEES Engineering Education Standard

The evaluation of your academic studies has been prepared to provide engineering and surveying licensing boards with the required assessment of foreign qualifications to facilitate them in determining if you qualify for licensure examination. This is an advisory report prepared based on records received and verified by the institutions issuing the degrees or qualifications. Eligibility to take the examination is determined by the licensing boards.

This report does not include the assessment of written and oral communication skills, computer skills, the quality of laboratory or field work, and the scope of design experience, which require an onsite review. Academic records (such as transcripts and catalogs) do not document qualitative factors and practical constraints to desirable outcomes.

NCEES houses a library of reference materials from around the world. These references are used for the completion of evaluations in conjunction with the NCEES Engineering Education Standard.

Post-graduate courses are ONLY used in an evaluation if they can assist in eliminating deficiencies that may be indicated in the undergraduate program.

Official Evaluations are ONLY available to state licensing boards and international exam sites through an applicant's NCEES account.

PREETISH RAJ (17-728-57)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
11/25/2025

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
4 years, 4 months

Total Engineering Experience
4 years, 8 months

Experience under licensed engineer
4 years, 8 months

Other Experience

Disciplinary Action
None reported

ABET EAC

FE EXAM

PE EXAM

4+

EDUCATION

Bachelors in Civil Engineering (EAC)
University of Nevada, Las Vegas
August 2012–December 2017

EXAMS

Fundamentals of Engineering (FE)
Nevada
February 2017

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

LICENSES

Additional Licenses
None

WORK EXPERIENCE

UES (Formerly NOVA Geotechnical Engineering)
Nevada (United States)
Geotechnical Staff Professional
August 2017—May 2018

Verified by
Martin Daniel Jensen
mjensen@teamues.com

Experience Summary
Full-Time
Engineering: 9 months
Post EAC degree: 5 months
Experience under licensed engineer: 9 months

TASKS

I planned and performed geotechnical field investigations including boreholes, test pits, and in-situ testing such as Standard Penetration Tests (SPT) and cone penetration tests (CPT). I classified soils and rocks in the field, interpreted subsurface data, and determined engineering parameters for design. I learned to calculate bearing capacity, settlement, slope stability, and lateral earth pressures to develop foundation and retaining wall recommendations. I prepared geotechnical reports for engineer-of-record review - with summarized field data, laboratory results, and engineering analyses with detailed recommendations for foundations, earthwork, and slope stability. I reviewed laboratory test results for accuracy, evaluated construction materials, and provided technical recommendations.

REPRESENTATIVE PROJECTS

Allegiant Stadium — Las Vegas, NV (2017–2018)

I performed preliminary geotechnical investigation and materials testing for the NFL stadium structure during early phase work. I analyzed subsurface conditions to calculate allowable bearing pressures and estimated settlements for shallow and deep foundations. I learned to evaluate soil improvement methods for high-plasticity materials and recommended foundation design parameters for structural and slab elements.

Project Neon (I-15 Interchange Reconstruction) — Las Vegas, NV (2017–2018)

I performed analysis and interpretation of subsurface data for bridge foundations, retaining walls, and embankment sections in compliance with NDOT and AASHTO standards. I completed CSL (Crosshole Sonic Logging) testing near piers and abutments. I developed recommendations for ground improvement, drainage control, and retaining wall design parameters. I also reviewed construction testing data (SPT, gradation, Atterberg limits) to verify consistency with design assumptions.

Inspirada Parks and Residential Developments — Henderson, NV (2017-2018)

I evaluated soil strength and bearing capacity for park infrastructure, retaining walls, and residential foundations across multiple development phases. I calculated settlement magnitudes, reviewed laboratory test results for compaction and classification, and recommended subgrade stabilization techniques for fine-grained soils. I prepared geotechnical report for each lot sections within Inspirada and FQAA for building approvals

WORK EXPERIENCE

Atkins Realis
Nevada (United States)
Transportation Design Engineer
May 2018—June 2020

Verified by
Kondala Rao Mantri
Kondalarao.mantri@traviscountytx.gov

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

TASKS

I prepared preliminary and final design plans, drawings, and specifications for roadway, highway, intersection, and traffic control projects for the engineer-of-record review. I designed horizontal and vertical alignments, cross sections, and intersection layouts using AutoCAD and MicroStation. I calculated turning radii, sight distances, signal warrants, and drainage interface loads to ensure compliance with AASHTO, MUTCD, and local DOT standards. I evaluated design alternatives for cost-effectiveness and constructability, and I reviewed internal and external submittals for QA/QC and dimensional consistency. I coordinated design interfaces with utilities, right-of-way, drainage, and electrical/communications disciplines, and I responded to RFIs and design clarifications during construction.

REPRESENTATIVE PROJECTS

RTC Wyoming Avenue Widening — Las Vegas, NV (2019–2020)

I designed curb return geometry, cross sections, and pavement transitions to accommodate roadway widening, sidewalks, and bike lanes in a constrained urban corridor. I calculated superelevation rates and taper lengths for smooth vehicular transitions and reviewed ADA ramp grades for compliance with accessibility standards. I prepared plan sheets for pavement markings, signage, and striping modifications to enhance multimodal safety and flow. I verified drainage tie-ins and recommended inlet spacing adjustments to maintain gutter flow efficiency.

CC-215 Losee / Pecos Interchange — North Las Vegas, NV (2018-2020)

I performed QA/QC review for the geometric design of the new interchange ramps and mainline widening. I verified horizontal and vertical control points for consistency between roadway and structural design files. I reviewed contractor submittals, signal layouts, and fiber communication plans to ensure conformance with NDOT specifications. I analyzed design deviations during construction and provided written recommendations for acceptable field adjustments to maintain design intent and safety standards. I managed RFI and Submittals for project for my engineer-of-record.

Boulder Highway Corridor Safety and Multimodal Improvements — Henderson, NV (2019-2020)

I assisted in designing median layouts, lane reconfigurations, and intersection upgrades to enhance corridor safety and multimodal connectivity. I calculated turning radii for transit vehicles, helped develop striping plans, and evaluated signal visibility and spacing. I drafted all dry utilities for the project from older as-builts and record drawings.

Cactus Avenue / Bermuda Road Intersection Improvements — Las Vegas, NV (2018-2020)

I designed lane widening, turn pocket extensions, and drainage structure modifications to improve intersection capacity and safety. I calculated turning path envelopes and intersection sight distances to confirm conformance with design speed and traffic volume projections. I worked with internal ITS team and prepared signal layout drawings, conduit routing, and utility adjustments tied to new mast arm foundations details for review with engineer-of-record. I reviewed grading tie-ins and recommended revisions to minimize ponding and surface runoff conflicts with ADA ramps.

Charleston Storm Drain (SD) Project — Las Vegas, NV (2018-2019)

I was included into a time sensitive project by office manager. I prepared plan sheets and hydraulic interface details for the storm drain system under accelerated design deadlines. I calculated hydraulic grade lines, inlet capacities, and pipe slopes to ensure adequate flow under the 10-year and 100-year storm events. I reviewed all existing SD details and redlined/drafted with as builts

and record drawings. I verified structure spacing and alignment within limited right-of-way and coordinated tie-ins with existing drainage systems. I recommended layout adjustments to improve constructability and minimize conflicts with underground utilities.

WORK EXPERIENCE

Blair Church & Flynn Consultants
Nevada (United States)
Assistant Engineer
June 2020—August 2021

Verified by
Preetish Raj (Self)

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

TASKS

I prepared construction design packages for natural gas distribution and transmission systems, including plan and profile drawings, site layouts, and technical specifications in compliance with Southwest Gas (SWG) standards. I designed pipeline routing, calculated pipe lengths, trench alignments, and clearance requirements based on field conditions and GIS data. I reviewed design submittals for conformance with client standards, utility conflicts, and permitting criteria. I communicated directly with Southwest Gas engineer-of-record and construction personnel to clarify design intent, reviewed field markups, and incorporated as-built updates into final plan revisions.

REPRESENTATIVE PROJECTS

Southwest Gas Distribution Design Program — Clark County, NV (2020-2021)

I designed multiple short-duration gas distribution projects throughout the Las Vegas Valley for Southwest Gas as part of their ongoing system expansion and maintenance program. Each project typically ranged from 100 to 2,000 linear feet of 2-inch to 8-inch PE and steel main extensions or replacements. I prepared plan and profile drawings in AutoCAD and Civil 3D based on GIS and survey data provided through the SWG design portal. I calculated trench alignments, pipe bend radii, and service tie-in locations and elevations to maintain required clearances from existing utilities. I verified compliance with SWG standard details, valve spacing requirements, and construction tolerances. I reviewed construction feedback and incorporated field markups into final record drawings for system documentation.

Southwest Gas Transmission Tie-In and Regulator Station Support — Las Vegas, NV (2020-2021)

I prepared design layouts and construction plans for small transmission tie-in and regulator station connections within developed corridors. I designed pipeline offsets and calculated slope transitions to achieve adequate cover while maintaining connection geometry with existing infrastructure. I reviewed manufacturer specifications for valves, regulators, and fittings to verify pressure class compatibility with transmission line design pressures. I coordinated routing with existing utilities and recommended alignment adjustments to minimize conflicts. I prepared quantities and design notes for client review prior to release

WORK EXPERIENCE

Valard USA
Nevada (United States)
Project Engineer, Project Manager (Construction)
September 2021—June 2023

Verified by

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

DESCRIPTION

WORK EXPERIENCE

Timmons Group
North Carolina (United States)
Construction Administrator
July 2023—March 2024

Verified by
Christopher Jason Todd
Chris.todd@timmons.com

Experience Summary
Full-Time
Engineering: 8 months
Post EAC degree: 8 months
Experience under licensed engineer: 8 months

TASKS

I reviewed and interpreted construction plans, specifications, and contract documents to verify that field work aligned with the design intent and governing standards. I conducted on-site evaluations to assess existing conditions, identify conflicts, and recommend design modifications to the Engineer of Record (EOR) when necessary. I performed routine and detailed inspections to observe contractor workmanship, document deficiencies, and confirm that installed materials and methods met project requirements.

I processed and evaluated technical submittals, shop drawings, RFIs, and change order assistance, ensuring my responses aligned with design criteria and contractual obligations. I verified that delivered materials met project specifications through field checks, quality-control observations, and coordination with testing laboratories.

I coordinated closely with design engineers, project managers, contractors, and utility representatives to resolve field engineering issues, interpret plans, and maintain project schedule and constructability.

I prepared as-built drawings and redline markups to document approved field modifications and ensure accurate project closeout. I participated in final inspections, verified completion of punch list corrective work, and assisted with turnover documentation including warranties, testing reports, and compliance certifications. Throughout construction, I monitored site safety practices and housekeeping in accordance with project requirements and industry standards.

REPRESENTATIVE PROJECTS

Smith Farms Industrial Park — (2023–2024)

I reviewed and interpreted construction plans, specifications, and reports to ensure field conditions matched the intended industrial site design. I evaluated submittals, RFIs, and shop drawings related to site utilities, pavement sections, and detention facility components, confirming compliance with local industrial development standards.

The Pines — Single-Family Residential Development (2023–2024)

I performed construction observation for roadway, lot grading, storm drain, and utility installation throughout the subdivision. I verified that curb grades, drainage swales, and building pad elevations aligned with the approved grading plan and would provide positive drainage away from structures. I reviewed submittals for stormwater structures, waterline components, and paving materials and coordinated clarifications with the EOR when discrepancies arose. I documented daily field activities, photographed deficiencies, and recommended corrective actions to maintain compliance with municipal residential development standards.

Falls at Hickory Subdivision — (2023–2024)

I conducted field reconnaissance to observe natural conditions, assess existing constraints, inspections of road widening, cul-de-sac grading, and utility trenching operations to ensure proper compaction, alignment, and depth per design documents. I created exhibit for EOR and client use with images of site along channel.

49264 Oakdale — Residential Site Improvements (2023–2024)

I evaluated existing site conditions, reviewed architectural and civil plan sets, and identified grading and utility conflicts requiring coordination with the EOR. I maintained daily inspection logs and prepared as-built markups documenting tie-in locations and revised elevations.

Brandon Creek Subdivision — (2023–2024)

I inspected storm drain installation and retaining wall construction to verify that contractor work met the approved design. I processed RFIs related to pipe crossings, invert adjustments, and wall step-downs, providing written recommendations that preserved hydraulic functionality and structural stability. I tracked contract quantities for storm drain runs and paving operations and reviewed pay applications for accuracy. I coordinated with city and utility entities.

Lakeside Glen — Phase 1 & 2 (2023–2024)

I verified compaction, pipe bedding, and pavement section thicknesses and ensured materials met ASTM and project specifications. I facilitated bi-monthly coordination meetings, issued field reports, and prepared redline as-builts documenting modifications across both phases for project closeout.

Grandfather Mountain State Park — (2023–2024)

I evaluated rugged site conditions and reviewed civil plans for trail improvements, drainage enhancements, and retaining features within the park. I coordinated with State Park representatives to brainstorm design changes post utillity conflicts and contractor utility breach. I observed construction activities to ensure proper erosion control installation, surficial slope stabilization, and drainage conveyance per environmental and state park standards.

Annsborough Park — Concord (2023–2024)

I reviewed grading plans, storm drain design, and park infrastructure layouts and verified field execution during site construction. I inspected installation of drainage structures, sidewalks, and park amenities, documenting nonconforming conditions and recommending corrective actions. I evaluated RFIs related to grade adjustments, ADA pathways, and site drainage tie-ins and coordinated resolutions with the design team. I prepared as-built and record drawings for drainage systems, pavement areas, and site features for municipal approval.

PREETISH RAJ (17-728-57)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Unemployed by choice - Personal Leave (Family)
Nevada (United States)
Unemployed by choice - family matter
April 2024—August 2024

Verified by
Preetish Raj (Self)

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

TASKS

Personal leave out of country for family reasons

REPRESENTATIVE PROJECTS

N/A

WORK EXPERIENCE

Solmax
Nevada (United States)
Engineering Business Manager
September 2024—November 2025

Verified by
Brett Allen Odgers
bodgers@solmax.com

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

TASKS

During my time with Solmax (2023–2025), I evaluated geotechnical and hydraulic design conditions to recommend engineered geosynthetic systems for subgrade stabilization, reinforcement, and erosion control applications. I reviewed geotechnical reports, hydrology models, and slope stability analyses to calculate factors of safety, shear stresses, and flow velocities for product selection and design verification. I prepared design drawings, design calculations, and technical submittals for geosynthetic systems including Mirafi® RS, H2Ri, HP, and ARMORMAX® solutions. I performed cost-benefit analyses and developed value-engineered alternatives based on soil properties, hydraulic performance, and constructability, ensuring compliance with AASHTO M288, FHWA HIF guidelines, and state DOT standards. I also coordinated with engineers, contractors, and public agencies to interpret design data and provide on-site technical support through installation and QA documentation.

REPRESENTATIVE PROJECTS

Red Rock Golf Course – PROPEX Erosion Control System

Las Vegas, NV (2024–2025)
I performed site feasibility studies and hydraulic flow assessments with the engineer-of-record and owner's representative. I calculated design shear stresses under 50-year and 100-year storm events to verify system integrity for channel slopes reinforced with polypropylene fibers and concrete connections. I analyzed wall interface stresses and recommended anchor spacing and embedment details. I coordinated with contractors, engineers, and distributors to ensure the system met design criteria and performance standards.

Fire Station 36 Channel Rehabilitation

Albuquerque, NM (2024–2025)
I performed hydraulic and slope stability analyses for a 2:1 embankment protecting the Fire Station 36 facility. I calculated design shear stresses for 10-year and 100-year storm events using HEC-RAS data and determined anchor spacing for the ARMORMAX® B2 system. I designed and prepared stamped construction drawings and anchor layout sheets, replacing the originally proposed concrete riprap with a vegetated reinforced slope solution. I verified factor-of-safety improvements and documented cost savings exceeding 30% relative to rigid systems.

Lisbon Wash Drainage Improvement

Clark County, NV (2024–2025)
I analyzed hydraulic loading and soil interface properties for a regional flood control channel under the jurisdiction of the Clark County Regional Flood Control District. I calculated shear stress and factor-of-safety values for erosive flow conditions exceeding 10 fps and recommended the combined use of PYRAMAT® 75 TRM and ARMORMAX® B1 reinforcement. I prepared design sheets showing embedment lengths, toe keys, and anchor patterns and reviewed contractor submittals for compliance with design parameters. I evaluated soil-test data to confirm vegetation compatibility and long-term stability.

NMDOT Roadway Subgrade Stabilization Program

Statewide, NM (2024–2025)
I developed subgrade stabilization design criteria using Mirafi® RS380i and H2Ri for fine-grained, moisture-sensitive soils across multiple NMDOT districts. I analyzed geotechnical data from statewide test sites, calculated resilient modulus improvements, and compared cost-performance ratios against conventional aggregate sections. I prepared specification language, performance summaries, and sample design sections for inclusion on NMDOT's Approved Products List (APL). I reviewed pilot installation data to confirm compliance with AASHTO M288 and FHWA GEC-11.

ADOT Pavement Reinforcement Trials

Phoenix, AZ (2024–2025)
I performed design evaluations and field verification testing for aggregate base reinforcement using Mirafi® HP570 and RS580i under heavy traffic corridors. I analyzed CBR data, calculated layer coefficients, and modeled anticipated rutting reduction through comparative pavement sections. I reviewed ADOT materials specifications and prepared technical memoranda summarizing design parameters, constructability considerations, and test section performance for inclusion in the 2024 Geosynthetics Specification Update Initiative.

SSCAFCA Slope Stabilization Program

Rio Rancho, NM (2024–2025)
I provided engineering design support for multiple slope stabilization projects under the Southern Sandoval County Arroyo Flood Control Authority. I calculated hydraulic shear stress, slope stability factors, and required anchor embedment depths for 1.5:1 slopes armored with ARMORMAX® B2 systems. I prepared design drawings showing anchor spacing charts, toe protection details, and tie-ins to rigid structures. I recommended design revisions that improved hydraulic protection uniformity and reduced installation cost compared to Class C riprap.

Solar Energy and Battery Energy Storage Sites

Nevada & Arizona (2024–2025)
I designed geosynthetic subgrade reinforcement systems for solar farm access roads, laydown areas, and battery energy storage sites exceeding 1,000 acres in combined project area. I reviewed geotechnical reports and CBR data to calculate base thickness reductions and determine allowable bearing capacities for Mirafi® RS380i and HP370 systems. I prepared design recommendations specifying reinforcement placement, overlap criteria, and QA documentation to verify performance during construction.

CHRISTOPHER TREJOS CASTILLO (19-744-15)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
10/27/2025

Citizenship
Costa Rica

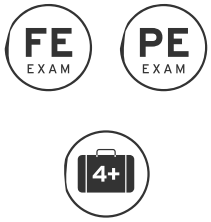
SUMMARY

Engineering Experience after EAC degree

Total Engineering Experience
4 years

Experience under licensed engineer
4 years

Disciplinary Action
None reported



EDUCATION

Bachelors in Civil Engineering (Unofficial Transcript)
University of Costa Rica
March 2010–June 2015

Masters in Civil and Environmental Engineering
University of Nevada, Reno
August 2017–December 2018

EXAMS

Fundamentals of Engineering (FE)
Nevada
November 2018

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

LICENSES

Additional Licenses
None

CHRISTOPHER TREJOS CASTILLO (19-744-15)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

University of Cauca, Colombia
Cauca (Colombia)
International Pavement Expert
July 2015—March 2016

Verified by
Christopher Trejos Castillo (Self)

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

TASKS

I developed software using Visual Studio 6.
I conducted pavement designs using the mechanistical empirical methodology stated in the AASHTO Mechanistical Empirical Pavement Design Guide.
I gathered traffic, climate, and material information for Colombia to establish the design catalog.
I developed an algorithm for pavement design using the Multilayer elastic theory to obtain the stresses and strains in different parts of the pavement to then use transfer equations to determine the damage caused to a specific structure by certain trucks.

REPRESENTATIVE PROJECTS

I developed the guide for mechanistical empirical flexible pavement design used in Colombia. The guide included a catalog with different case scenarios depending on the soil characteristics, climate in the zone, availability of materials, and traffic.
I developed a software called XtraDim that allowed to determine the damage produced by different trucks that haul the cane in the Cauca Province of Colombia.
I developed the guide for determining the recommended structure for flexible pavement with low traffic for Colombia.

CHRISTOPHER TREJOS CASTILLO (19-744-15)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

National Laboratory of Materials and Structural Models of the University of Costa Rica
San José (Costa Rica)
Research Assistant
April 2016—July 2017

Verified by
Christopher Trejos Castillo (Self)

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

TASKS

I developed software with Visual Studio 6
I supervised the coding of a backcalculation tool with Java
I developed research using the Heavy Vehicle Simulator available in the laboratory to determine rutting models to be used in the Costa Rican Mechanistical Empirical Flexible Pavement Design tool.
I developed multiple algorithms to consider the available research on soils and asphalts conducted by the laboratory to be included in the flexible pavement design tool.

REPRESENTATIVE PROJECTS

I conducted research and software to have a flexible pavement design software with Costa Rican performance modeles, considering the humid conditions that impere in most parts of Costa Rica. The software allowed the user to input a pavement structure and select a zone in Costa Rica. After this the software considered the master curves or different models available to determine the asphalt pavement viscoelastic modulus based on the monthly temperatures and speeds. Then the software computed the strains in different parts of the pavement to correlate this with the Costa Rican performance models or calibrated transfer models to determine the expected rutting and alligator y then determine if the structure inputted by the user is sound to the expected traffic.

WORK EXPERIENCE

Applied Pavement Technology Inc.
Illinois (United States)
Engineer Associate II
February 2019—February 2022

Verified by
Genevieve Long
glong@appliedpavement.com

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

TASKS

My work was 100% Engineering, focused on Transportation with emphasis in Pavement Engineering.
I developed the pavement management system for different airports and counties, using the United States Army Corps of Engineers (USACE) software PAVER to input pavement distresses and determine the Pavement Condition Index (PCI).
I developed recommendations for possible maintenance and repair needs for different asphalt and concrete pavements using the software PAVER, engineering judgement, and the UFC-3-270-08 for military projects.
I developed pavement deterioration regression models based on previous inspections of the pavement using the software PAVER. These models are later used to determine the expected condition of the pavements and determine scenarios to allocate the airport or county budget to have the pavement system in the best possible condition.
I conducted pavement condition inspections for roads, parking lots using the ASTM D6433, airports using the ASTM D5340, and for brick paver roads using the ASTM E2840.
I conducted the backcalculation of the moduli of asphalt pavements using the software MODULUS from Texas A&M and BAKFAA from the Federal Aviation Administration (FAA) using data from a Falling Weight Deflectometer (FWD).
I conducted the backcalculation of the flexural strength of the PCC and the k-value of the subgrade using the equations in FAA Advisory Circular 150-5370-11b.
I conducted the pavement design for asphalt and concrete pavements using the FAA software FAARFIELD for commercial airports and USACE software PCASE for military airfields with the guidance of FAA Advisory FAA Advisory Circular 150-5320-6F, considering different design alternatives.
I computed the Pavement Condition Number (PCN) values for airport facilities using the FAA software COMFAA and guidance from FAA Advisory Circular 150-5335-5C.
I developed life cycle analysis using the prices for different design options assessing the use of asphalt or concrete surfaces, or the use of cement treated, granular or rubblized bases.

REPRESENTATIVE PROJECTS

I was Project Engineer for the Brownsville South Padre Island International Airport APMS Update during 2019. I conducted PCI inspections to the airport runways, taxiways, and aprons based on the ASTM D5340. I analyzed data from Falling Weight Deflectometry (FWD) runway testing using the software Modulus and the formulas in FAA Advisory Circulars to determine data to calculate runway PCN using COMFAA. I developed the maintenance and repairs recommendations.

I was Project Engineer for the Charlotte-Douglas International Airport Apron Pavement Management Plan Implementation and the Eastern Iowa Airport Pavement Management Program (PMP) Update during 2019. I analyzed the FWD data using formulas in the FAA Advisory Circular 150-5370-11bI computed the PCN with the available information using the software COMFAA. I developed the client project report.

I was Project Engineer for the Indianapolis International Airport (Indiana) Runway 5R-23L and Taxiway D Rehabilitation during 2019. I developed pavement designs using the software FAARFIELD and I developed the client report.

I was Project Engineer for the Newark Liberty International Airport Rehabilitation of Terminal B2 and B3 Ramps during 2019. I conducted PCI inspections to determine maintenance and repair recommendations.

I was Project Engineer for the O'Hare International APMS Update during 2020 and 2021. I performed records review, I assessed the system inventory, I updated the network definition and sample units, and I conducted both manual and automated PCI surveys based on ASTM D5340 for the airport facilities and ASTM D6433 for roads. I updated and customized the PAVER database, I developed pavement condition reports, and I conducted PAVER training.

I was Project Engineer for the Vance Air Force Base Repair Center Runway and Taxiway C during 2020. I investigated the

existing pavement to perform moduli backcalculation and determine existing layer properties. I developed pavement design alternatives using software PCASE. I provided design recommendations.

I was Project Engineer for the Hawkins Field Airport and Jackson-Medgar Wiley Evers International Airport Asphalt Pavement Management System (APMS) implementation during year 2020. I performed FWD data analysis using the software Modulus and the formulas included in the FAA Advisory Circular 150-5370-11b. I computed the PCN calculations based on the FWD results, coring and boring information, available records, with the aid of the FAA software COMFAA and FAARFIELD.

I was Project Engineer for the Wichita Airport Authority APMS Update during 2020, for Colonel James Jabara (AAO) Airports. I updated and customized the PAVER database. I analyzed the PCI and FWD data. I calculated the PCN values for the taxiways, aprons, and runways using COMFAA. I computed the structural remaining life using the software FAARFIELD. I developed a capital improvement plan based on the results for the remaining life. I developed the project report to the client.

I was Project Engineer for the Detroit Metropolitan Airport Pavement Condition Indexing Services during 2020. I performed FWD data analysis using the software Modulus, BAKFAA, and the formulas included in the FAA Advisory Circular 150-5370-11b. I computed the PCN based on the FWD results, coring and boring information, available records, using COMFAA and FAARFIELD. I developed the project reports to the client.

I was Project Engineer for the Pease-Portsmouth Phase II Pavement Management Program Update during 2021. I conducted PCI surveys based on ASTM D5340 to provide recommendations to the airport on how to allocate their fundings.

I was Project Engineer for the Columbus Regional Airport Authority Pavement Management Program Update for John Glenn International, Rickenbacker International, and Bolton Field Airports during 2021. I updated inventory and network definition maps, I updated the PAVER database, and I performed manual Pavement Condition Index (PCI) inspections, and I analyzed the collected data to provide repair and maintenance recommendations to each airport.

I was Project Engineer for the Joint Base Andrews (Maryland) East Runway Business Case Analysis in 2021. I conducted pavement condition review, and I developed repair strategies using the software PCASE,and I developed a Life Cycle Cost Analysis.

I was Project Engineer for the On-Call Pavement Management Services for the Port Authority of New York and New Jersey during 2021 and 2022. I modified the Geographic Information System (GIS) used to conduct automated pavement inspections based on the Laser Cracking Measuring System (LCMS) equipment.

CHRISTOPHER TREJOS CASTILLO (19-744-15)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Edica Ltda
San José (Costa Rica)
Quality Control Engineer
March 2022—September 2024

Verified by
Christopher Trejos Castillo (Self)

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

TASKS

I conducted quality control to concrete, rebar, wood, and brick materials.
I conducted quality control to the soils using the test results from SPT and plate load test.
I conducted quality control on the soil compaction using the results from the proctor modified test.
I conducted quality control on gutter using a sclerometer.
I conducted quality control on luxury houses finishes.
I developed a software to conduct forecasts of the project expenses based on the invoices received using an xml reader of the standard Costa Rican invoice format.
I conducted meetings with the bank peer reviewers to show the progress and for them to allow the payments to the contractor.
I had meetings with the project managers to determine the best practices and solutions to construction issues.
I had meetings with subcontractors to determine the best soluctions to constructions issues.

REPRESENTATIVE PROJECTS

I was the Quality Control Engineer for the construction of the Nekajui a Ritz Carlton Reserve Papagayo. I was also in charge of big part of the project finances from meeting the bank peer reviewers and showing them the project progress and also from forecasting the project cost.

CHRISTOPHER TREJOS CASTILLO (19-744-15)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Applied Pavement Technology Inc.
Illinois (United States)
Engineer Associate III
October 2024—October 2025

Verified by
Katherine Suzanne Gauthier
kgauthier@appliedpavement.com

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

TASKS

My work was 100% Engineering, focused on Transportation with emphasis in Pavement Engineering.
I developed the pavement management system for different airports and counties, using the United States Army Corps of Engineers (USACE) software PAVER to input pavement distresses and determine the Pavement Condition Index (PCI).
I developed recommendations for possible maintenance and repair needs for different asphalt and concrete pavements using the software PAVER, engineering judgement, and the UFC-3-270-08 for military projects.
I developed pavement deterioration regression models based on previous inspections of the pavement using the software PAVER. These models are later used to determine the expected condition of the pavements and determine scenarios to allocate the airport or county budget to have the pavement system in the best possible condition.
I conducted pavement condition inspections for roads, parking lots using the ASTM D6433, airports using the ASTM D5340.
I conducted the backcalculation of the moduli of asphalt pavements using the software MODULUS from Texas A&M and BAKFAA from the Federal Aviation Administration (FAA) using data from Falling Weight Deflectometer (FWD).
I conducted the backcalculation of PCC flexural strength and subgrade k-value using the equations in FAA Advisory Circular 150-5370-11b.
I conducted the pavement design for asphalt and concrete pavements using the USACE software PCASE for military airfields with the guidance of FAA Advisory FAA Advisory Circular 150-5320-6F.
I computed the Pavement Condition Ratings (PCR) values for airport facilities using the FAA software FAARFIELD and guidance from FAA Advisory Circular 150-5335-5D.
I used GIS tools to modify, add, and create different sections to maps as the process of planification for manual and automated pavement inspections.
I determine the Boeing Bump Index using the software ProFAA.
I used GIS tools for data analysis of project properties for reporting.
I developed client reports and project proposals.

REPRESENTATIVE PROJECTS

I was Project Engineer for the Salt Lake City Department of Airports Pavement Condition Assessment during 2024. I updated the project network definition. I performed mapping using GIS tools. I conducted automated pavement inspections using the Laser Crack Measurement System (LCMS) equipment.

I was Project Engineer for the Denver International Airfield Pavement Evaluation during 2024. I conducted PCI manual inspections. I used the LCMS equipment to determine the Being Bump Index for all runways on DEN Airport with the aid of software ProFAA. I conducted automated inspections using the LCMS equipment.

I was Project Engineer for the Georgia Airport Pavement Management System (APMS) Update during 2024. I update the network definition based on available records.

I was Project Engineer for the Savannah Airport PCR Assessment during 2024 and 2025. I conducted the FWD analysis for the PCC sections using the FAA advisory circular formulas.

I was Project Engineer for the Knox County Pavement Management System Update during 2025. I performed quality control for the conducted automated inspections.

I was Project Engineer for Ventura County PMP during 2025. I conducted the quality control of the FWD Analysis backcalculation using BAKFAA, Modulus, and the FAA Advisories formulas.

I was Project Engineer for the Des Plaines Pavement Distresses Data Collection during 2025. I conducted pavement inspections

using automated images obtained from the LCMS equipment.

I was Project Engineer for the HAS HOU Runway 13R/31L Assessment during 2025. I conducted a site visit to the Runway to determine the main distresses and determine which areas need immediate attention. I provided recommendations for short- and long-term fixes using GIS map format.

I was Project Engineer for the HAS IAH Runway 15L/33R during 2025: I developed a maintenance plan based on the distresses and the severities found on the runway. I provided estimates of the cost of maintaining the runway.

I was Project Engineer for the Port Jersey and Port Newark projects during 2025. I determined the pavement distresses and severities based on the automated images from the LCMS equipment.

I was Project Engineer for the Arizona APMS Triennial Study during 2025. I inspected the pavement aprons, runways, and taxiways for Mesa Gateway Airport, and Payson Airport.

I was Project Engineer for the American Samoa Government APMS Update during 2025. I computed the PCR values for the runways, aprons, and taxiways using the software FAARFIELD.

I was Project Engineer for the Phoenix Sky Harbor Pavement Management Program during 2025. I conducted manual pavement inspections on aprons, taxiways, and runways based on ASTM D5340.

ADDITIONAL INFORMATION

TIME GAPS

Start Date	End Date	Explanation
December 2008	February 2010	Participated in the International Mathematical Olympiad: https://www.imo-official.org/participant_r.aspx?id=18932

Electrical

CONNOR HENDRIKS (20-029-52)

All work experience reviewed by two licensed professionals

DISCIPLINE: ELECTRICAL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
11/03/2025

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
4 years, 5 months

Total Engineering Experience
4 years, 5 months

Experience under licensed engineer
4 years, 5 months

Other Experience

Disciplinary Action
None reported

EDUCATION

Bachelors in Electrical Engineering (EAC)
University of Nevada, Reno
August 2015–May 2019

EXAMS

Fundamentals of Engineering (FE)
Nevada
March 2019

Principles and Practice of Engineering (PE)
Electrical & Computer
Nevada
March 2021

LICENSES

Additional Licenses
None

CONNOR HENDRIKS (20-029-52)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Helix Electric
Nevada (United States)
Project Engineer
June 2019—July 2020

Verified by

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

DESCRIPTION

CONNOR HENDRIKS (20-029-52)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

WSP
Idaho (United States)
Engineer III
March 2021—August 2025

Verified by
Michael Ross Sharp
michael.sharp@wsp.com

Experience Summary
Full-Time
Engineering: 4 years, 5 months
Post EAC degree: 4 years, 5 months
Experience under licensed engineer: 4 years, 5 months

TASKS

As a Protection & Control Substation Engineer, I was responsible for the design, review, and implementation of protective relaying and control systems at transmission and distribution substations. My duties included preparing detailed one line diagrams, three line diagrams, protection and control schematics, control enclosure layouts, relaying panel elevation drawings, and wiring drawings to ensure proper implementation of utility standards and IEEE guidelines.

I provided engineering judgment on CT and PT sizing, voltage drop calculations, AC station service calculations, and DC station battery calculations to verify proper conductor and station service sizing was used in my substation designs.

I prepared and reviewed equipment specifications that were used for materials procurement. After procurement, I reviewed vendor drawings for errors and for conformance with specifications, verifying that proposed materials were acceptable for the substation design. Additionally, I integrated final vendor drawings into the substation schematics and wiring diagrams to create a comprehensive design package.

I prepared design packages that were integrated into construction projects, coordinated with project managers, and interfaced with other disciplines such as civil, structural, and physical design. My role required consistent application of engineering judgment to ensure that substations were protected, reliable, and safe for operation.

I started as an Engineer I, progressed to Engineer II after 16 months, and then progressed to Engineer III after another 20 months. My job responsibilities were the same throughout all three positions, however my level of deliverable ownership changed throughout. As an Engineer I I was heavily guided and all of my work was reviewed by a senior engineers. As an Engineer II, I was independent in my duties but still reported to a lead engineer on the project. As an Engineer III I was responsible for the entirety of the P&C substation design, as well as the mentorship of junior engineers.

REPRESENTATIVE PROJECTS

Goddard Substation was a 138kV/13.2kV distribution substation in Texas that required a complete rebuild of the 13.2kV system, from low side bushings of the power transformers through the feeders leaving the station. The existing control enclosure was decommissioned and replaced by a brand new control enclosure. The existing enclosed switchgear was removed and replaced by 15kV distribution circuit breakers configured into two bays of main and transfer bus, connected by a bus tie breaker. I worked on this project from March 2021 through January 2022. I designed the entire P&C package for the Goddard rebuild, which included the one line diagrams, three line diagrams, protection and control schematics, control enclosure layouts, relaying panel elevation drawings, and wiring drawings. In addition to creating all of the new drawings for the P&C design, I also used site photos and the existing drawing set to create removal drawings for all of the existing equipment that was removed during the project. During my design of the P&C drawing package, I also performed calculations for voltage drop, AC station device, and DC station batteries. I reviewed vendor drawings for major pieces of equipment and integrated them into the design package. Finally, I reviewed as-built drawings and incorporated the changes from the field into the issued for record drawing set.

The Nevada Greenlink project is a massive transmission and substation initiative by NV Energy designed to upgrade Nevada's power grid, comprising of new transmission lines and new substations that connect Ely to Yerington and then Yerington to Las Vegas. I worked on this project from January 2022 to January of 2023. I was focused on the substation side of the project, specifically on the 500/230kV collector substations that would be built along the transmission lines. I created preliminary one line diagrams for three of these 500/230kV substation and for all of the existing remote end stations. I also prepared design criteria memorandums (DCMs) for each of the three 500/230kV sites. The DCMs were 50+ page documents that described information such as the scope of the projects, the site conditions, the major equipment specifications, the telecommunications requirements, the protective relaying requirements, and a plethora of other items. I created new standard substation drawing modules for the

500kV relaying as the utility did not yet have them created. I made template three line diagrams, protection and control schematics, relay panel elevation drawings, and wiring diagrams for each protection type. The protection types that I made templates for were breaker failure (SEL-451), line protection (SEL-411L & SEL-T401L), autotransformer protection (SEL-487E), reactor protection (SEL-487E), and bus protection (SEL-487B).

Sloan Canyon is a 500/230kV transmission substation project in southern Nevada that has a multi-faceted scope. The existing 230kV yard will be converted from a ring bus configuration to a breaker and a half configuration that includes the addition of two new line terminals. One of the new 230kV terminals will be connected to the new 500kV yard approximately 1/4 mile away. The new 500kV yard will be 4 rungs of breaker and a half configuration that includes of (4) single phase autotransformers (one is a spare), (3) single phase 24.9kV tertiary reactors, and (4) 500kV line terminals. I worked on this project from January 2024 through August 2025. I created the P&C design packages for both the 230kV and 500kV yards, including one line diagrams, three line diagrams, protection and control schematics, control enclosure layouts, relaying panel elevation drawings, and wiring drawings. No utility standards existed for this project so all drawings were designed from scratch. I performed calculations for voltage drop, AC station device, and DC station batteries and used the results to design a station service system. I reviewed vendor drawings for major pieces of equipment and integrated them into the design package.

ADDITIONAL INFORMATION

TIME GAPS

Start Date	End Date	Explanation
August 2020	February 2021	I left my job at Helix Electric, which was mostly construction management, to focus on electrical engineering instead. During this time I studied for and then passed the electrical PE exam before starting as a protection & control substation engineer.

JOSH KNIGHTON (16-367-77)

All work experience reviewed by two licensed professionals

DISCIPLINE: ELECTRICAL

GENERAL

Applying To
Nevada

Application Type
Comity - PE

Application Date
01/19/2022

Citizenship
United States

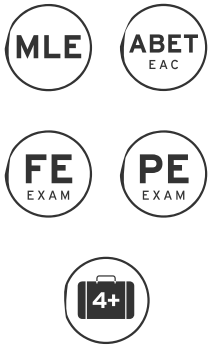
SUMMARY

Engineering Experience after EAC degree
7 years, 6 months

Total Engineering Experience
7 years, 6 months

Experience under licensed engineer
4 years, 6 months

Disciplinary Action
None reported



EDUCATION

Bachelors in Electrical Engineering (EAC)
Utah State University
August 2012–May 2016

Masters in Electrical and Computer Engineering
University of Utah
January 2019–December 2021

NOTE: First discipline specific Electrical license.

WAIVER REQUEST: 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”

EXAMS

Fundamentals of Engineering (FE)
Utah
January 2016

Principles and Practice of Engineering (PE)
Control Systems
Utah
October 2017

Principles and Practice of Engineering (PE)
Electrical & Computer
Utah
October 2025

LICENSES

Initial License
Utah
Issued: April 2020
Expires: March 2027

Additional Licenses
CO, IA, MN, NE PE, ND, SD, TX, WY

WORK EXPERIENCE

Dominion Energy
Utah (United States)
Engineer II
May 2016—April 2020

Verified by
Mike Dean Rall
mike.rall@dominionenergy.com

Experience Summary
Full-Time
Engineering: 3 years, 11 months
Post EAC degree: 3 years, 11 months
Experience under licensed engineer: None

TASKS

1. Create / Update electrical & instrumentation drawings for assigned projects
2. Designed / commissioned control systems for flow, pressure, velocity, temperature, and level devices
3. Specified / procured electrical & instrumentation parts for new projects
4. Managed projects to ensure deadlines were met & contractors performed work as specified, and ensured the capital spending was tracked monthly in the budget
5. Managed day to day support for automation equipment within the existing infrastructure of Wyoming, Colorado, and Utah
6. Performed electrical calculations for new power systems, grounding, lighting, etc & specified parts that fit the design criteria.
7. Worked with external parties to implement electrical systems following established guidelines / standards (NEC, NFPA, IEEE, etc)

Engineering = 100%, 0% surveying

REPRESENTATIVE PROJECTS

2016

Generator Loadbank Quick Connects - I worked under a mentor since this was my first project. This included modification to the motor control center's backup generator, so a loadbank could be connected to it. The work included cost estimation, scheduling, design for 480V / parallel connections, budget management, and contractor oversight

Henefer RTU Upgrade - I had full responsibility to replace the legacy control / measurement equipment at this site. This was a medium sized project to retire the old equipment, and specify replacement hardware. The hardware consisted of RTU, pressure transmitters, temperature transmitters, battery backup system, thermo-electric generator, and flow meter. My scope included cost estimation, part specification/procurement, scheduling, programming RTU for flow measurement using AGA standard, programming RTU's downstream control valve for batch control, and commissioning the SCADA system using MAS radio. I did the electrical drawings in Autocad.

2017

White River Hub - I had full responsibility for cost estimation, part procurement/specification, design of (3) water analyzers to monitor pipeline content using spectral analysis with light waves & seeing the moisture wavelengths get reflected back. I also commissioned the (3) analyzers. I did the electrical drawings in Autocad.

Westport Gate - I had full responsibility for cost estimation, part procurement/specification, electrical design / calculations, project management, and commissioning. This project consisted of distribution tap off of a transmission pipeline. The instrumentation/electrical included 200A utility feed, control building, odorant injection/control, ultrasonic meter for flow/pressure control of the gas, vacuum heater with PID loop to offset the temperature during the pressure reduction, and microwave system for SCADA. The control system utilized Allen Bradley PLC and Emerson RTU. I programmed the PLC & RTU. The control consisted of temperature control of heater using cascaded PID, over-pressure protection, odorant injection control, flow/pressure control using Fisher control valves, and pressure/temperature monitoring for SCADA alarms. I did the electrical drawings in Autocad.

2018

Whitney Canyon Expansion - I had full responsibility for increasing the flow capacity. This included cost estimation, part procurement/specification, budget management, electrical design, and commissioning. The capacity was increased with additional pipe runs with new ultrasonic meters. Flow and pressure control was added to the runs via a large & small control valve. I programmed the control using Allen Bradley Controllogix platform & the measurement was done using AGA standard on Emerson RTU. I did the electrical drawings in Autocad.

Bluebell Expansion - I had full responsibility for increasing the flow capacity. This included cost estimation, part procurement/specification, budget management, electrical design in Autocad, and commissioning the station. The project consisted of new ultrasonic meter, new control valve, new pressure/temperature transmitters, new H2S, CO2, H2O, and O2 analyzers, and new gas chromatograph. I designed the analyzer building + RTU enclosure & I commissioned the equipment.

2019

South Davis Biogas Plant - I had full responsibility for designing the electrical/instrumentation for a new interconnect with a Biogas producer This included cost estimation, part procurement/specification, budget management, electrical design in Autocad, and commissioning the station. The project consisted of (2) meters, new control valve, pressure/temperature transmitters, H2S, CO2, H2O, and O2 analyzers, and new gas chromatograph. I designed the analyzer building + control building & I commissioned the equipment. I wrote the safety procedures for this plant

Kastler Dewpoint Plant - Upgrade flare/combustor to burn offspec gas. I had full responsibility. It included cost estimation, procurement, design, and commissioning.

2020
Flyer Way Crossover - I had full responsibility for the electrical & control system. This included cost estimation, procurement, project management of contractors, design using Autocad, calculations, and commissioning. The project scope: electric service, fiber/microwave communication, bidirectional flow, (2) ultrasonic meters, gas chromatograph, (4) control valves, control using Allen Bradley PLC, measurement using Emerson RTU, overpressure protection, and fiber system.

Rose Park Gate - I had full responsibility for the electrical & control system. This included cost estimation, procurement, project management of contractors, design using Autocad, calculations, and commissioning. The project scope: distribution tap into transmission pipeline, electric service, microwave communication, (2) ultrasonic meters, odorant injection control, temperature control via 3 vacuum heaters, (4) control valves, control using Allen Bradley PLC, measurement using Emerson RTU, overpressure protection. I did the programming & design.

WORK EXPERIENCE

Dominion Energy
Utah (United States)
Engineer II
December 2018—August 2020

Verified by
James Jerad Blue
jj.blue@Williams.com

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

TASKS

This experience was verified by Mike Rall, but I am adding JJ Blue since he was licensed in 2018 & was the senior engineer who oversaw my projects. Mike Rall wasn't licensed and South Dakota requires experience under professional engineer.

1. Create / Update electrical & instrumentation drawings for assigned projects
2. Designed / commissioned control systems for flow, pressure, velocity, temperature, and level devices
3. Specified / procured electrical & instrumentation parts for new projects
4. Managed projects to ensure deadlines were met & contractors performed work as specified, and ensured the capital spending was tracked monthly in the budget
5. Managed day to day support for automation equipment within the existing infrastructure of Wyoming, Colorado, and Utah
6. Performed electrical calculations for new power systems, grounding, lighting, etc & specified parts that fit the design criteria.
7. Worked with external parties to implement electrical systems following established guidelines / standards (NEC, NFPA, IEEE, etc)

Engineering = 100%, 0% surveying

REPRESENTATIVE PROJECTS

2018

Whitney Canyon Expansion - I had full responsibility for increasing the flow capacity. This included cost estimation, part procurement/specification, budget management, electrical design, and commissioning. The capacity was increased with additional pipe runs with new ultrasonic meters. Flow and pressure control was added to the runs via a large & small control valve. I programmed the control using Allen Bradley Controllogix platform & the measurement was done using AGA standard on Emerson RTU. I did the electrical drawings in Autocad.

Bluebell Expansion - I had full responsibility for increasing the flow capacity. This included cost estimation, part procurement/specification, budget management, electrical design in Autocad, and commissioning the station. The project consisted of new ultrasonic meter, new control valve, new pressure/temperature transmitters, new H2S, CO2, H2O, and O2 analyzers, and new gas chromatograph. I designed the analyzer building + RTU enclosure & I commissioned the equipment.

2019

South Davis Biogas Plant - I had full responsibility for designing the electrical/instrumentation for a new interconnect with a Biogas producer This included cost estimation, part procurement/specification, budget management, electrical design in Autocad, and commissioning the station. The project consisted of (2) meters, new control valve, pressure/temperature transmitters, H2S, CO2, H2O, and O2 analyzers, and new gas chromatograph. I designed the analyzer building + control building & I commissioned the equipment. I wrote the safety procedures for this plant

Kastler Dewpoint Plant - Upgrade flare/combustor to burn offspec gas. I had full responsibility. It included cost estimation, procurement, design, and commissioning.

2020
Flyer Way Crossover - I had full responsibility for the electrical & control system. This included cost estimation, procurement, project management of contractors, design using Autocad, calculations, and commissioning. The project scope: electric service, fiber/microwave communication, bidirectional flow, (2) ultrasonic meters, gas chromatograph, (4) control valves, control using

Allen Bradley PLC, measurement using Emerson RTU, overpressure protection, and fiber system.

Rose Park Gate - I had full responsibility for the electrical & control system. This included cost estimation, procurement, project management of contractors, design using Autocad, calculations, and commissioning. The project scope: distribution tap into transmission pipeline, electric service, microwave communication, (2) ultrasonic meters, odorant injection control, temperature control via 3 vacuum heaters, (4) control valves, control using Allen Bradley PLC, measurement using Emerson RTU, overpressure protection. I did the programming & design.

WORK EXPERIENCE

Westech Engineering Inc
Utah (United States)
Electrical Engineer
August 2020—January 2021

Verified by
Bradley Russell Jordan
bjordan@westech-inc.com

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

TASKS

• Managed electrical contractors on projects
• Reviewed customer specifications, industry standards, and submitted RFIs for items that didn't align or was conveyed vaguely
• Produced engineering deliverables for grassroots water treatment plants across the United States
o Transformer Sizing
o Power transformer protection
o Overcurrent / ground fault timing coordination & pickup settings
o Motor control center design
o Switchgear design
o Conduit sizing & raceway schedule
o Cable sizing & cable schedule
o Motor selection and VFD design
o Ground ring design & grounding system standard details
o Paneboard design & load balancing
o Cable Tray design
o Heat Tracing design
o Network communication design for cyber security risks
o Lighting design
o Specify Instruments + control system
o Safety system design
o Electrical installation details
o Instrument location plans
• Used AutoCad / Plant 3D to create electrical drawings that documented the deliverables mentioned above
• Produced control narratives and cause & effect diagrams for the control systems
• Developed electrical/instrumentation schedules with deadlines for major milestones on the project
• Developed hardware and software factory acceptance test plans for all electrical, instrumentation, and control equipment

REPRESENTATIVE PROJECTS

Plant Barry Ash Dewatering System - assisted Brad Jordan on the design.
I designed the power feed system within the plant. There were multiple distribution panels that received feeders from Plant Barry.
I designed the power system for all of the plant's buildings / equipment.
I created the oneline diagram of the feed from the utility down to the water treatment equipment.
I designed the heat trace system for the above ground, water piping. I created a drawing in Autocad with the number of heat trace runs, end kits, splices on each pipe segment.
I designed the exterior lighting for the platforms / catwalks within the plant. I verified adequate lighting with a photometric plan using Visual Studios.
I designed the electrical distribution and specified the step-down transformers for the out buildings within the plant.
I created a cable/conduit schedule for all of the interconnection points on the new gear.
I created an instrument location plan for all of the control equipment within the plant.
I created a loop diagram for all of the PLC connections throughout the plant.
I provided the electrical details for the piping and instrumentation diagram for this facility.
I circuited the end devices & created a panel schedule.

Chesterfield Ash Dewatering System - assisted Brad Jordan & other engineers on the design
I designed the power feed system within the plant and sized the transformer for the peak load.

I designed the motor control center and verified all of the buckets were correct for the motors listed by all of the various water treatment sectors within this plant. I made sure the full load non-reversing / reversing were right and VFDs were included on the motors that needed them.
I circuited all of the lifesafety loads and made sure all of the sensors were interlocked to the appropriate equipment.
I specified the PA system and designed the cabling / interconnections for the speakers within the plant.
I created the oneline diagram of the feed from the utility down to the water treatment equipment.
I designed the heat trace system for the above ground, water piping. I created a drawing in Autocad with the number of heat trace runs, end kits, splices on each pipe segment.
I designed the interior/exterior lighting for the platforms / catwalks within the plant. I verified adequate lighting with a photometric plan using Visual Studios.
I designed the electrical distribution and specified the step-down transformers within the plant.
I created a cable/conduit schedule for all of the interconnection points on the new gear.
I created an instrument location plan for all of the control equipment within the plant and designed the conduit runs being all underground as much as possible
I created a loop diagram for all of the PLC connections throughout the plant.
I provided the electrical details for the piping and instrumentation diagram for this facility.
I assisted with the PLC programming / configuration for the control system.
I circuited each water treatment skid & created a panel schedule of every panel within the plant
I designed the process network configuration as a ring type and designed all of the conduit / cat6 connection points to the various switches. There were multiple remote I/O chassis that connected back to the master PLCs. There were also HMI stations, lifesafety controllers, fire alarm panels, and other infrastructure that was tied to this ring network. I designed it so the corporate network was separated from the process network. The corporate network was designed as a fiber backbone from the Chesterfield power plant.

WORK EXPERIENCE

DLB Associates
Utah (United States)
Electrical Engineering Specialist
January 2021—August 2021

Verified by
Josh Knighton (Self)

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

TASKS

I was recruited to assist DLB in designing data center projects in the United States.

I helped with power system protection, electrical distribution, coordination studies, and various engineering calculations.

• Designed mission critical electrical systems in various parts of the United States and some international projects
• Reviewed contractor submittals and verified they were in line with design drawings / specifications
• Edited / created master specifications for electrical infrastructure
• Performed studies in SKM, EasyPower and ETAP for arc flash, short circuit analysis
• Designed underground duct banks for low – medium voltage systems
• Designed EPMS / PME / BMS systems for mission critical projects
• Worked with contractors and answered RFIs / approved submittals and other documentation
• Performed energy optimization designs for mission critical projects and provided solutions to reduce energy consumption
• Used Autocad to produce electrical drawings
• Produced network architecture documents for new systems

REPRESENTATIVE PROJECTS

Mission critical / data centers
1. grassroots data center - assisted senior electrical engineer with the following tasks:
I assisted others in designing the power system for a small data center with a N+1 topology.
I created a single line diagram with (2) medium voltage feeds from the local utility company that were stepped down with a large, oil-filled transformer. The secondary feeds were terminated them in an "A" switchgear and "B" switchgear. The two switchgear were located in different electrical rooms and connected via a tie-breaker. Each switchgear had a single emergency generator that was interlocked digitally with an electrically operated breaker. The switchgear cabinets were equipped with a local PLC / HMI and I wrote the sequence of operations to control the various modes : loadbank control with emergency generator in auto/manual, switchgear A carrying the load in utility, switchgear B carrying the load in utility, switchgear A carrying the load in emergency, and switchgear B carrying the load in emergency. The switchgear fed the UPS for the downstream IT and the various mechanical/ancillary equipment for the datacenter.
I helped design the power monitoring system and I created the network architecture plan for the equipment that was connected to the PMS. I created a feeder schedule for all of the interconnections between the new gear and listed the conductor sizes, equipment ground sizes, and conduit sizes.
I performed the underground feeder calculations from the utility transformer into the switchgear with Ampcalc to make sure the ampacity deration from heating in the conduits/duct bank was adequate to supply the designed load.
I performed a short circuit study in EasyPower to make sure the all of the equipment withstand ratings were adequate from the utility XFMR all the way down to the PDUs / RPP.
I circuited all of the mechanical, plumbing, and electrical equipment in the distribution panels and then I balanced the loads.
I used Autocad to produce all of the above drawings for the datacenter design. After the permit drawings were approved, I reviewed/approved contractor submittals for all of the new equipment.

Industrial projects - lead engineer
1. Emergency generator replacement in North Carolina
I evaluated the existing system and determined if the generator was emergency-rated, required standby, or optional standby.
I created a oneline of the existing system and separated lifesafety loads from non-emergency circuits so the generator could be purchased as standby.
I designed a lighting inverter system to supply the egress/emergency lighting.
I designed the fuel delivery system to the new generator & specified where the piping / instruments should be connected.

I designed a generator distribution panel to feed the block heater, battery charger.
I designed the generator annunciator system
I designed a grounding triad system for the generator

Renewable Energy - lead engineer
1. PUE calculation / DCIM implementation for various datacenter projects throughout the United States (Phoenix, New York, New Jersey, California, Chicago, Texas)
I created network architecture drawings of all the existing metering within the datacenter and showed the various protocols, communication gateways, and other conversion equipment in a simplified drawing.
I created power usage effectiveness (PUE) calculations that looked at the ratio of the power coming into the facility to the power that was being used for the IT equipment.

JOSH KNIGHTON (16-367-77)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Hunt Electric
Utah (United States)
Engineer
August 2021—September 2021

Verified by
ADAM ADAM BROWNELL
abrownell@huntelectric.com

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

TASKS

Electrical design build engineering projects in Utah, Colorado, Nevada.

REPRESENTATIVE PROJECTS

Casino resort service upgrades

Data center MV upgrade for expansion

Ski resort infrastructure backbone

Subdivision infrastructure backbone.

In these projects, I assisted as a PE reviewer and in others, I was the lead engineer for the new systems.

JOSH KNIGHTON (16-367-77)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Hunt Electric
Utah (United States)
Engineer
September 2021—September 2022

Verified by
ADAM BROWNELL
abrownell@huntelectric.com

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

TASKS

PE over various electrical & controls projects

REPRESENTATIVE PROJECTS

I was the PE on projects in Colorado and Utah. Some of my projects are listed below.

Benloch Ranch - Underground utility distribution & street lighting design build

Western Peaks Ranch - Water booster pump stations electrical design, sewer lift station electrical & control design, ski lift electrical design, commercial building electrical design, underground utility distribution & street lighting for 500 + homes

Colorado Springs NOVVA data center - Designed the medium voltage feeders, UPS distribution, and low voltage electrical within the new datacenter

UAMPS Nebo Power Plant - Completed Arc Flash / Selective Coordination study for an existing power plant operating at 120 kV. Provided recommended relay settings to the plant owner.

Colorado Springs NOVVA data center - completed arc flash / selective coordination study for all the new electrical equipment & provided relay settings for the 13.8 kV protection equipment.

Cytiva - completed design build electrical for a clean room facility that manufactured medical-grade saline. Completed control systems for safety door interlocking mechanisms. Completed arc flash / selective coordination study for the plant.

WORK EXPERIENCE

Dominion Energy
Utah (United States)
Engineer II
September 2022—September 2023

Verified by
Arthur James Bezdjian
arthur.bezdjian@dominionenergy.com

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

TASKS

Electrical & Controls engineer for various natural gas projects in Utah. Some of the tasks are listed below.

1. Electrical design for new stations (grounding, utility services, low-voltage distribution, lighting, panel schedules, conduit/cable schedules, electrical details)

2. Controls/Automation design for new stations (control panels, instrument location plans, instrument loop drawings, instrument details, network architecture, cause & effect matrix, telemetry schedules, etc)

3. Project management (create scope of work documents & get contracted help for the onsite construction, schedule, part procurement, updating budgets, submittal review, project specifications)

4. Point-to-point I/O verification for all telemetry into SCADA from the new station instrumentation

5. Project Commissioning & AS-built / Record Documentation

REPRESENTATIVE PROJECTS

Some of the projects are listed below

1. Hydrogen Blending - I designed the electrical & controls for this project. It included an electrolyzer that splits the water molecule into hydrogen & oxygen, an discrete injection system that injects the hydrogen into the natural gas piping, various safety systems, and various instrumentation on the piping system. I managed the electrical/controls portion of this project and commissioned all of the new equipment. The control system included an Allen Bradley controllogix PLC with an Emerson RTU for various process measurements.

2. Automated Safety Valves - I designed the electrical & controls for 10+ ASV projects within the gas distribution system. These systems monitor the pressures on both sides of a pneumatic valve and calculates rates of changes for pressures. If the system detects ROC and low pressures for a given time, the control system will shut the valve in an effort to isolate a potential pipe rupture from the rest of the system. The scope of work included a radio system, new power distribution, new DC backup power, new RTU, new instruments (pressure transmitters, limit switches for open/close status of valve, solenoids for opening/closing the valve, and some other form C relays to monitor system conditions).

3. Indirect heater sites - I designed the electrical & controls for various heater sites. These heaters monitor the gas temperature & pre-heat the gas, so any liquids within the stream doesn't freeze after going through a pressure reduction. The scope of work included a radio system, new power distribution, new DC backup power, new RTU, new instruments (temperature transmitters, heater communication, and some other form C relays to monitor system conditions).

4. other small controls / electrical projects as they came up.

JOSH KNIGHTON (16-367-77)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Dominion Energy
Utah (United States)
Engineer III
September 2023—June 2024

Verified by
Arthur Bezdjian
arthurb2@gmail.com

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

TASKS

Electrical & Controls engineer for various natural gas projects in Utah. Some of the tasks are listed below.

1. Electrical design for new stations (grounding, utility services, low-voltage distribution, lighting, panel schedules, conduit/cable schedules, electrical details)

2. Controls/Automation design for new stations (control panels, instrument location plans, instrument loop drawings, instrument details, network architecture, cause & effect matrix, telemetry schedules, etc)

3. Project management (create scope of work documents & get contracted help for the onsite construction, schedule, part procurement, updating budgets, submittal review, project specifications)

4. Point-to-point I/O verification for all telemetry into SCADA from the new station instrumentation

5. Project Commissioning & AS-built / Record Documentation

REPRESENTATIVE PROJECTS

Some of the projects are listed below

1. Hydrogen Blending - I designed the electrical & controls for this project. It included an electrolyzer that splits the water molecule into hydrogen & oxygen, an discrete injection system that injects the hydrogen into the natural gas piping, various safety systems, and various instrumentation on the piping system. I managed the electrical/controls portion of this project and commissioned all of the new equipment. The control system included an Allen Bradley controllogix PLC with an Emerson RTU for various process measurements.

2. Automated Safety Valves - I designed the electrical & controls for 10+ ASV projects within the gas distribution system. These systems monitor the pressures on both sides of a pneumatic valve and calculates rates of changes for pressures. If the system detects ROC and low pressures for a given time, the control system will shut the valve in an effort to isolate a potential pipe rupture from the rest of the system. The scope of work included a radio system, new power distribution, new DC backup power, new RTU, new instruments (pressure transmitters, limit switches for open/close status of valve, solenoids for opening/closing the valve, and some other form C relays to monitor system conditions).

3. Indirect heater sites - I designed the electrical & controls for various heater sites. These heaters monitor the gas temperature & pre-heat the gas, so any liquids within the stream doesn't freeze after going through a pressure reduction. The scope of work included a radio system, new power distribution, new DC backup power, new RTU, new instruments (temperature transmitters, heater communication, and some other form C relays to monitor system conditions).

4. other small controls / electrical projects as they came up.

JOSH KNIGHTON (16-367-77)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Muth Electric
South Dakota (United States)
Engineer
June 2024—November 2025

Verified by
Josh Knighton (Self)

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

TASKS

Arc Flash / Coordination Studies
Design Build Electrical Power Engineering
Control System Engineering & Design
Non-Listed Equipment Evaluations for Minnesota & South Dakota
PLC/HMI Programming in Allen Bradley Products
SCADA Programming in Ignition
UL Listed Control Panel Design for Hazardous & Non-Hazardous Areas
Power Meter / Power Quality Troubleshooting & Testing

REPRESENTATIVE PROJECTS

GCC concrete plant

Henkel smart factory automation plant

arc flash/Coordination Studies (over 50 projects)

Controls design engineering for 30+ projects (control panel layouts, control narrative & PLC/HMI programming, loop diagrams, motor control 3 line diagrams, short circuit current rating calculations, heating & cooling calculations, etc)

Electrical Design engineering for 30+ projects (grounding plan, power plan, panel schedules, single line diagram, cable & conduit schedules, cable tray, voltage drop calculations, lighting plan & illuminance calculations, available fault current calculations, grounding resistance calculations, harmonic studies & calculations, electrical installation details)

DANIEL SCHILLING (22-702-22)

All work experience reviewed by two licensed professionals

DISCIPLINE: ELECTRICAL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
11/20/2025

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
4 years

Total Engineering Experience
4 years

Experience under licensed engineer
4 years

Other Experience

Disciplinary Action
None reported

EDUCATION

Non-degree
Monroe Community College
August 2015–May 2017

Non-degree
Cabrillo Community College
September 2017–June 2018

Bachelors in Electrical Engineering (EAC)
University of California, Santa Cruz
August 2018–June 2021

EXAMS

Fundamentals of Engineering (FE)
California
December 2022

Principles and Practice of Engineering (PE)
Electrical & Computer
Nevada
February 2025

LICENSES

Additional Licenses
None

WORK EXPERIENCE

United States Air Force
Florida (United States)
Security Forces
June 2005—June 2007

Verified by

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

DESCRIPTION

DANIEL SCHILLING (22-702-22)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

IBEW 611
New Mexico (United States)
Electrician
August 2007—July 2015

Verified by

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

DESCRIPTION

WORK EXPERIENCE

Gurries Electric
California (United States)
Lead Electrician
July 2017—October 2021

Verified by

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

DESCRIPTION

DANIEL SCHILLING (22-702-22)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Axiom Engineering
California (United States)
Engineering Trainee
October 2021—October 2022

Verified by
Curtis Jon Taylor
curtisjontaylor@gmail.com

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

TASKS

In this position I assisted in design and drafting support items to include creating electrical drawings through AutoCAD and Revit, performing load calculations for panel schedules and circuiting, and reviewing single lines and equipment submittals. My tasks also included code compliance checks, calculations for voltage drop, short-circuit, and feeder sizing.

REPRESENTATIVE PROJECTS

- Private Residence remodel
Name redacted by previous employer when I asked for drawings/details.
Location: 20th St. San Francisco, CA
Project number 20210166 for reference.
Permit submission 2/17/2022 with a 4-month design time.
Scope or work: Private residence design build project for a recently gutted 3 story residence.

During this project, I took a lead role while being monitored by my PE at the time. I coordinated the permit process with the utility company and ensured proper requirements were met for an underground vault. I designed a single line showing all sub-panels, large mechanical equipment, solar infrastructure, and EV chargers. I calculated the overall load on the service and provided both a load calculation and available fault current calculation to ensure proper AIC rating on equipment. I designed power floor plans that met NEC requirements and coordinated mechanical unit locations with the mechanical engineer working on the project.

- Restaurant/Bar remodel
Name redacted by previous employer when I asked for drawings/details.
Location: Napa, CA.
Project number: 21-109 for reference.
Permit submission 1/19/2022 with a 2-month design time.
Scope of work: Tenant Improvement - Restaurant/bar build out for new tenant in a shopping center in Napa, CA.

During this project, I coordinated with the architect to provide an electrical design for a client opening a new restaurant. I designed a lighting layout to meet a number of requirements depending on the area served from kitchen, bar, general dining, and ornamental. I performed Title 24 analysis to ensure energy code compliance and photometrics to ensure light levels were sufficient. I built numerous schedules surrounding lighting design to include fixture schedules, control matrixes, and dimming schedules. For power, I updated the existing building single line to show the addition and change of a new tenant panel. I sized feeder and conduit per NEC to feed the panel and performed voltage drop calculations to ensure code compliance. I created all panel schedules and provided branch circuiting for all general use equipment, kitchen equipment, and mechanical units for the space.

- Car museum/restoration factory.
Name redacted by previous employer when I asked for drawings/details.
Location: San Jose, CA
Project Number: 20220011 for reference.
Permit submission: 06/24/2022 with plan check response submission on 10/06/2022
Scope of work: Conversion of a warehouse structure to convert to museum/showroom and restoration facility.

For this project I helped in writing electrical sheet specs. I designed a number of different types of areas inside the facility including a paint booth, blasting booth, prep room, and showroom floor. Each area had different types of power and lighting requirements in order to meet customer requirements. I designed power distribution for a larger switchboard (2500A main)

including a 1200A bussed gutted that was stepped down from 480/3ph to 208/3ph. I had to perform calculations to size the transformer properly to feed the 1200A gutter to included wire and conduit sizing as well. I created a number of different schedules to include transformer grounding schedules, feeder schedules, switchboard load summaries, and all the lighting schedules mentioned in the restaurant job above.

DANIEL SCHILLING (22-702-22)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Helix Electric
Nevada (United States)
Design Engineer E.I.T
November 2022—November 2025

Verified by
Andy Bedora
abedora@helixelectric.com

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

TASKS

In this position I took on a more lead role in design and drafting support items to include creating electrical drawings through AutoCAD and Revit, performing load calculations for panel schedules and circuiting, and reviewing single lines and equipment submittals. My tasks also included code compliance checks, calculations for voltage drop, short-circuit, and feeder sizing.

REPRESENTATIVE PROJECTS

- Manufacturing Facility
Name: Skytrac
Location: Salt Lake City (Tooele), UT
Project number 472302
Project Timeline: Dec 2022 - Sept 2023
Scope or work: New ground up facility for the manufacturing of ski lifts/chairs

I led design meetings, suggested design decision to both architect/customers, and drafted much of the design drawings. I evaluated utility drawings to locate transformers and service entry to the buildings main gear. I designed the main gear (2500A 100% rated LSI) and worked with the owner to distribute power to all crucial locations in the building. I analyzed wind turbine drawings with a company from Italy to provide power and handle conversion of EU standards to US standards. Inside the building, I designed systems to handle a large bank of welders and multiple crane hoists. I applied diversity factors where allowed per NEC.

- Multifamily
Stone Village Apartments
Location: Reno, NC
Project number: 482128
Permit submission Nov 2022 - Nov 2025
Scope of work: new ground up 8 building multifamily facility with pool, clubhouse, and other amenity areas.

I took over the project previous employee and finished drafting the remaining floor plans and created remaining panel schedules. I answered city comments after permit submission. I reviewed and updated the previous design to reflect updated floor plan layouts, updated mechanical drawings, and recommended value engineering and constructability options. In addition, I designed a number of other site amenity areas including a pool/pool house, lazy river, and athletic courts with specialized lighting all under separate permit provisions.

- Data Center
Switch Data Center
Location: USA Parkway. Reno, NV
Project Number: 482412
Project Timeline: Dec 2024 - Nov 2025
Scope of work: BIM Execution

For this project I led design meetings between the BIM Modeling team and Operations/Field Superintendents. I reviewed electrical design and recommended conduit pathing for a constructable design for power distribution through the Switch datacenter once the 35kv lines from the substation were run. I modeled the conduit routing design for a total of 15 large scale electrical rooms. I created a database with data to populate a working 3d model of the entire data center inside Revit. I provided recommendations for power distribution out of the electrical rooms for a total of 150+ 4" distribution conduits to provide redundant power to all PDU's and then from PDU another several hundred 2" conduits powering RPP (customer panels) through the entire

facility.

- Manufacturing Facility
Name: AVK Elastomer
Location: Minden, NV
Project number 482502-03
Project Timeline: July 2025 - Nov 2025
Scope or work: New ground up facility for the manufacturing of rubber products

I designed a portion of a manufacturing facility that had a classified location. I reviewed documentation from a FPE to properly classify the area and provide a code compliant design for the owner. I suggested value engineering options for power distribution through a portion of the facility with regard to power distribution and future scalability. I recommended additional provisions on switch gear and subpanels to reduce strain on the structural integrity due to weight restrictions.

- Restaurant/Hotel
Name: Hyatt at Incline
Location: Incline Village, NC
Project number 482508
Project Timeline: Oct 2025 - Nov 2025
Scope or work: BIM execution and verification of design.

I review construction documents in order to provide feedback on design decisions. I design lighting layouts based on Lutron submittals. I provide recommendations on design changes that impact constructability while still meeting code requirements. I review shop drawings submittals to cross check against contract documents. I review submittals for lighting and gear to confirm proper procurement.

ISAAK SHAFIR (25-254-96)

All work experience reviewed by two licensed professionals

DISCIPLINE: ELECTRICAL

GENERAL

Applying To
Nevada

Application Type
Comity - PE

Application Date
11/12/2025

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree

Total Engineering Experience
43 years, 4 months

Experience under licensed engineer
9 years, 1 month

Disciplinary Action
None reported

EDUCATION

Meets NCEES Engineering Education Standard

Bachelors in Electrical Engineering - Electrical Machines & Apparatus
Riga Technical University
September 1968–June 1972

NOTE: Had a license in California but does not plan on reinstating it.

EXAMS

Principles and Practice of Engineering (PE)
Electrical
California
October 1983

Fundamentals of Engineering (FE)
California
April 1982

LICENSES

Initial License
California
Issued: March 1984
Expires: March 2011

Additional Licenses
None

ISAAK SHAFIR (25-254-96)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Rolling Stock Manufacturing Plant
Rīga (Latvia)
Electrical Engineer
August 1972—May 1977

Verified by
Isaak Shafir (Self)

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

TASKS

Designed on-board electrical equipment layout and inter-wiring.

REPRESENTATIVE PROJECTS

Rolling stock manufacturing

ISAAK SHAFIR (25-254-96)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Pullman Standard
Indiana (United States)
Electrical Engineer
June 1977—December 1979

Verified by
Isaak Shafir (Self)

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

TASKS

Designed wiring diagrams for on board electrical equipment

REPRESENTATIVE PROJECTS

Rolling Stock Manufacturing

ISAAK SHAFIR (25-254-96)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Gibbs & Hill
Pennsylvania (United States)
Electrical Engineer
January 1980—March 1982

Verified by
Isaak Shafir (Self)

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

TASKS

System design, traction power simulation studies, manual calculations, prepared bid drawings and specifications, conducted reviews of bid submissions.

REPRESENTATIVE PROJECTS

Consulting Engineering - Design for traction power system for Pittsburgh Light Rail System (LRT)

WORK EXPERIENCE

Kaiser Engineers
California (United States)
Supervising Electrical Engineer
April 1982—November 1994

Verified by
William Leo Lucci
hhbilliam@gmail.com

Experience Summary
Full-Time
Engineering: 12 years, 7 months
Experience under licensed engineer: None

TASKS

1982-1983

I determined preliminary locations of traction power substations. I coordinated with electrical utility company requirements for 34.5 kV power supply to each traction power substation. I evaluated vendor information.

1984-1985

I performed traction power computer simulations to determine substation locations and capacities. I determined relay protection requirements for AC and DC equipment.

1986-1987

I prepared technical specifications drawings, bill of quantities for traction power system equipment and third rail procurement and installation contracts.

1990-1991

I responded to bidders' questions, evaluated bid submissions. I reviewed contractor's design submissions and witnessed factory acceptance tests. I conducted field inspections, witnessed onsite tests and testing & commissioning activities.

Taipei MRT Network

1988-1989

I designed power supply system for 750 V third rail network. I coordinated 161 kV supply requirements with electrical utility company. I developed single line diagrams for systemwide 22 kV distribution network and bulk supply/ traction/station/depot substations. I performed DC and AC computer simulation studies. I designed third rail and substation equipment layouts. I prepared bid drawings and specifications for power supply turnkey procurement/installation contract.

1992-1994

For Red, Green, Brown Lines, duties/tasks were similar to
those carried out in 1990-1991 in Los Angeles.
For Blue Line task and duties were similar to those carried out in 1988-1989 in Taipei.

REPRESENTATIVE PROJECTS

Consulting Engineering

1982-1986, 1989-1990
General Consultancy (GC) JV between Parsons Brinkerhoff, Kaiser Engineers, DMJM for Los Angeles Red line MRT (Mass Rapid Transit) system.

The project covered system planning (alignment alternatives, passenger station locations, ridership studies, traction substation locations, equipment alternatives), preliminary engineering (computer simulations, manual calculations), final engineering (preparation of technical specifications, drawings, bill of quantities and other bid documents), conducting bidding and bid

evaluations, design support during construction (design reviews of contractors' specifications/drawings/test procedures and reports).

My role was - lead engineer for traction power system design.

1982-1983
Planning and Conceptual Design for Traction Power System.

I determined preliminary locations of traction power substations. I coordinated 34.5 kV power supply requirements with electrical utility company. I evaluated vendor products for substation equipment and third rail.

1984-1985
Preliminary Engineering for Traction Power System.

I performed traction power computer simulations. I determined relay protection requirements for AC and DC equipment. I coordinated traction power interfaces with other E&M and civil designs.

1986-1987
Final design for traction power system

I developed bid specifications and drawings for procurement and installation of traction power system equipment and third rail.

1990-1991
Bidding and Design Support During Construction

During the bid stage, I responded to bidders' questions, evaluated bid submissions. During post award stage, I reviewed contractor's design submissions and witnessed factory acceptance tests. During construction, I conducted field inspections, witnessed onsite tests and testing & commissioning activities.

1988-1989, 1992-1994

Taipei MRT, Taiwan
American Transit Consultants (ATC) - General Consultancy JV between Parsons Brinkerhoff, Kaiser Engineers, Bechtel for Taipei Municipal Government for 150 km transit network consisting of 5 transit lines.

For Red and Green Lines (a total of 33 kms) preliminary engineering was performed by British Transit Consultants. Subsequently, ATC took over and completed final design, developed bid documents for civil and E&M contracts, conducted bidding and bid evaluation, carried out construction management, testing and commissioning activities for Red and Green Lines.
For Blue & Brown lines, ATC started from preliminary engineering and implemented all tasks mentioned above for Red & Green Lines.
For Orange lines ATC activities included system planning, preliminary engineering, bidding for turnkey contract, construction management, testing and commissioning.

My role was - lead electrical engineer for power supply system.

The power supply system included 161 KV supply from electrical utility company, bulk supply substations stepping 161 kV supply to 22 kV, 22 kV distribution to traction power substations and station electrical substations converting 22 kV supply into 750 V DC supply to trains and 380 V supply to passenger station loads.

1988-1989

For Red and Green Lines, I prepared bid documents for turnkey procurement of power supply system.
For Blue Line: I performed traction power DC study computer simulations and AC study computer simulations for load flow, voltage drop, harmonics and short circuit current calculations. Also, I coordinated Bulk Supply Substation locations and requirements with electric utility company.

1992-1994

For Red, Green and Brown Lines.
I reviewed contractor's design submissions and witnessed factory acceptance tests. During construction, I conducted field inspections, witnessed onsite tests and testing & commissioning activities.
For Orange Line, I determined locations of bulk supply and traction power substations, coordinated 161 kV power supply requirements with electrical utility company. I developed single line diagrams for 22 kV systemwide distribution network and bulk supply/traction/station/depot substations. I conducted DC and AC system studies.

WORK EXPERIENCE

De Liew Cather
Maryland (United States)
Principal Electrical Engineer
December 1994—October 2000

Verified by
Daljit Singh Gill
daljitsg@yahoo.com

Experience Summary
Full-Time
Engineering: 5 years, 10 months
Experience under licensed engineer: 5 years, 10 months

TASKS

1994-1996

- I designed traction power power and auxiliary power systems for 750 V and 1500 V Overhead Catenary systems on Manila Line 1 LRT and Line 2 MRT systems.
- I coordinated 34.5 kV supply requirements with electrical utility company.
- I developed single line diagrams for medium voltage distribution and traction power substations.
- I performed computer based simulations for DC and AC system studies to calculate substation loadings, voltage drop, short circuit currents, voltage and current harmonic distortions.
- I prepared bid drawings and specifications.
- I evaluated bidders' technical submissions.

1997-1998

- I reviewed designs of turnkey systems contractor.
- I reviewed technical documentation for variation orders.
- I conducted field inspections.
- I performed safety and quality audits.
- I witnessed testing and commissioning of rolling stock and E&M systems.

1999-2000

- I evaluated technical submissions for bid on E&M system contracts.
- I reviewed operations and maintenance procedures.
- I reviewed submissions for integration of E&M systems.
- I reviewed consultants' recommendations for value engineering.

REPRESENTATIVE PROJECTS

General Consultancy between Katahira Engineers and De Liew Cather on JICA financed project for capacity expansion of Manila Line 1 LRT and design for Manila Line 2 MRT.

1994 - 1996

The Line 1 project involved 50 % capacity expansion for 17 km, 15 station, LRT system. The project included procurement of additional rolling stock; upgrading power supply, overhead contact system, signaling and communication systems; procuring additional rolling stock and expanding depot and passenger stations.

The Line 2 project included planning, engineering, bidding, construction, testing and commissioning of new 13.6 km heavy rail MRT system. Power supply system included 34.5 kV AC supply from electrical utility company; traction power substations, converting 34.5 kV AC power to 750 V DC (Line 1) and 1500 V DC (Line 2) supply to trains and 6.6 kV AC supply to passenger stations; 6.6 kV systemwide distribution network; and electrical substations at passenger stations, converting 6.6 kV AC supply to 480 V supply to station electrical loads.

My role - Principal Engineer for power supply design

On Line 1 project:
- I reviewed the existing traction power system
- I determined the upgrade requirements
- I prepared specifications for procurement of additional equipment and cables
- I developed contract drawings including updated substation equipment layouts, single line diagrams, wiring schematics.

On Line 2 project:
- I developed overall configuration of traction power system
- I performed DC and AC system studies
- I determined substation locations and capacities
- I prepared procurement specifications and drawings

1997-1998

Turnkey E&M systems contract included: rolling stock, traction power, 750 V DC overhead catenary, signaling, telecommunications, automatic fare collection, trackwork and depot equipment.

My Role - Resident E&M Systems Engineer during construction of Line 1 capacity expansion.

- I reviewed design submissions for power supply, overhead catenary, signaling and telecommunications systems
- I attended factory acceptance and onsite testing
- I reviewed variation orders
- I conducted site inspections

1999-2000

My role - Assigned as Adviser to the Client (Government Owned Corporation - LRTA).

LRTA is the franchisee for operating Line 1 and new Line 2 that was being constructed at that time.

- I reviewed bids for E&M system contracts
- I reviewed existing O&M procedures & practices and recommended improvements
- I reviewed system integration proposals of contractors
- I reviewed value engineering proposals

WORK EXPERIENCE

Marubeni Corporation
Tokyo (Japan)
Chief Engineer
November 2000—July 2022

Verified by
Lars Rune Granström
granstrom_lars@yahoo.com

Experience Summary
Full-Time
Engineering: 21 years, 8 months
Experience under licensed engineer: None

TASKS

2001-2006

- I reviewed design submissions of suppliers
- I prepared technical documentation for variation orders.
- I integrated E&M systems
- I resolved design and construction interfaces between systems and with civil contractors.
- I made technical decisions on compliance with contract documents
- I conducted field inspections and witnessed factory and site tests

2007- 2008, 2009-2010, 2011-2012

- I reviewed bid documents
- I evaluated subcontractors' technical submissions
- I prepared technical bid submissions
- I prepared system integration, interface coordination, testing and commissioning plans
- I developed project work breakdown structure and Gantt charts for project implementation and design submissions schedules

2013-2014

- I coordinated with electrical utility company for 33 kV power supply at multiple locations.
- I performed DC and AC system studies for 33 kV AC and 750 V DC distribution.
- I evaluated equipment suppliers' submissions
- I conducted interface and system integration
- I witnessed factory and site acceptance tests.

2015-2017

Duties similar to those performed in 2007-2012.

2018-2022

Duties similar to those performed in 2001-2006.

REPRESENTATIVE PROJECTS

2001- 2006

Manila Line 2 MRT

Turnkey E& M systems contract for rolling stock, trackwork, traction power, overhead catenary, signaling, telecommunications, and automatic fare collection systems. Scope- engineering, design, procurement, installation, testing & commissioning, system integration, trial running, handover, warranty.

The project covered 13.6 km mainline route with 10 elevated stations and 1 underground station, 10-hectare depot, 6 traction power substations, and 1500 V DC overhead catenary. the substations were supplied from 34.5 kV distribution system of electrical utility company.

My pole- Technical Lead
- I reviewed design submissions for power supply, overhead catenary, signaling and telecommunications systems
- I attended factory acceptance and onsite testing & commissioning
- I conducted site inspections
- I reviewed technical submissions of variation orders
- I reviewed technical submissions of claims from subcontractors
- I reviewed resolutions of defects liability claims

2007-2008

Preparation of technical bid documents for double tracking of commuter line in Jakarta Indonesia. The project involved converting the existing single track alignment into double track, modifying the existing 1500 VDC OCS, upgrading the existing power supply, signaling, and telecommunications systems.

My role - Technical Lead
- I evaluated bid requirements
- I evaluated technical submissions from potential subcontractors
- I developed project management and design management plans
- I developed system integration, interface coordination, testing and commissioning documents
- I developed project implementation and design submission programs

2009-2010

Preparation of technical bid documents for turnkey systems bid on Line 1 MRT in Ho Chi Minh City, Vietnam. The bid covered rolling stock, trackwork power supply, overhead catenary , signaling, telecommunications, automatic fare collection, depot equipment, work trains.

My role - Technical Lead
- I evaluated bid requirements
- I evaluated technical submissions from potential subcontractors
- I developed project management and design management plans
- I developed system integration, interface coordination, testing and commissioning documents
- I developed project implementation and design submission programs

2011-2012

Preparation of technical bid documents for turnkey systems bid on Orange Line MRT in Bangkok Thailand. The bid covered rolling stock, trackwork power supply, overhead catenary , signaling, telecommunications, automatic fare collection, depot equipment, work trains, platform screen doors.

My role - Technical Lead
- I evaluated bid requirements
- I evaluated technical submissions from potential subcontractors
- I developed project management and design management plans
- I developed system integration, interface coordination, testing and commissioning documents
- I developed project implementation and design submission programs

2013-2014

Power Supply Contract for Line 1 MRT in Kuala Lumpur Malaysia.

The power supply system covered 34 traction power substations, 53 electrical substations at passenger stations, 33 kV power supply from electrical utility company, 33 kV systemwide distribution, 750 V DC third rail.

My role - Technical Lead
- I conducted DC and AC studies to calculate substation capacities, equipment and cable sizes, short-circuit an harmonics levels
- I reviewed suppliers specifications and drawings
- I developed systemwide and substation-specific single line diagrams
- I integrated systemwide control, monitoring and interlocking schematics

- I coordinated power supply requirements with electrical utility company

2015-2017 Bid preparation
2018-2022 Implementation

My role - Technical Lead

Preparation of technical bid documents and post award -implementation for turnkey E&M systems contract for Manila Line 2 East Extension.

The Project involved a 4- km extension of the original Line. with 1 traction power substation and 2 passenger stations. The Contract included trackwork, power supply, overhead catenary, signaling, telecommunications, and automatic fare collection systems. .

Scope - engineering, procurement, system integration, installation, testing and commissioning, trial running, handover, warranty.

2015- 2017

My role - Technical Lead
- I evaluated bid requirements
- I evaluated technical submissions from potential subcontractors
- I developed project management and design management plans
- I developed system integration, interface coordination, testing and commissioning documents
- I developed project implementation and design submission programs

2018-2022
My pole- Technical Lead
- I reviewed design submissions for power supply, overhead catenary, signaling and telecommunications systems
- I attended factory acceptance and onsite testing & commissioning
- I conducted site inspections
- I reviewed technical submissions of variation orders
- I reviewed technical submissions of claims from subcontractors
- I reviewed resolutions of defects liability claims

WORK EXPERIENCE

JAD & Associates
Manila (Philippines)
Vice President - Rail Systems
August 2022—November 2025

Verified by
JOSEPH ALLAN CATIBOG DILAY
adilay@jadandassociates.com

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

TASKS

2022-2023

- I evaluated external wiring provisions for the existing equipment and available space for new equipment
- I reviewed technical specifications and drawings of the existing equipment
- I prepared specifications and drawings for procurement of new equipment
- I evaluated bid specifications of potential bidders for new equipment
- Post - award I reviewed suppliers' s design submissions
- I integrated designs of equipment suppliers
- I attended factory and site testing
- I conducted site inspections

2024-2025
- I coordinated with electrical utility company for 34.5 kV and 69 kV power supply at multiple locations.
- I performed computer simulation studies for traction power 1500 V DC system and 6.6 kV AC distribution network
- I reviewed equipment suppliers' submissions
- I developed systemwide and substation single line diagrams
- I developed systemwide control, monitoring and interlocking schematics

REPRESENTATIVE PROJECTS

JAD and associates is engineering and construction company, with offices in Manila and Los Angeles. Registered as minority company in a number of states of the United States of America. My role - technical lead on rail projects in the Philippines and in the United States of America.

2022-2023

Manila Line 1 LRT project

Replacement of 38-years old 34.5 kV AC switchgear, 750 V DC switchgear, 1850 kW rectifier units. The original AC switchgear was air-insulated switchgear (AIS). It was replaced by compact ABB gas-insulated switchgear (GIS). The 750 V DC switchgear was replaced with modern units, equipped with PLC based protection devices.

My role - Technical Lead
- I evaluated existing external wiring and space provisions
- I reviewed technical documents of the existing equipment
- I developed technical bid documents for procurement of new equipment
- I evaluated bids for new equipment
- I reviewed suppliers' s design submissions
- I integrated designs of new equipment
- I witnessed factory testing and site testing & commissioning
- I conducted site inspections

2024-2025

North South Commuter Rail (NSCR) project in Manila

NSCR N1 segment covers 38 km elevated-structure alignment with 9 passenger stations and 1 depot. Hitachi Rail Transportation division is the turnkey E&M system contractor. Linxon, the Indian branch of Swiss-based company, is the turnkey subcontractor to Hitachi for Power Supply PSS), Power Distribution (PDS), and Overhead Contact System (OCS). JADPhil is a subcontractor to Linxon in engineering design for PSS, PDS and OCS. NSCR N1 segment is supplied at 34.5 kV and 69 kV to derive 1500 V DC and 6.6 kV AC at 10 traction power substations. The system preliminary design was completed and pre-final design, covering equipment submissions, is ongoing.

My role - Power Supply Engineer
- I conducted DC and AC studies to calculate substation capacities, equipment and cable sizes; voltage drop, short-circuit and harmonics levels
- I reviewed suppliers specifications and drawings
- I developed single line diagram and equipment layout drawings
- I integrated systemwide control, monitoring and interlocking
- I coordinated power supply requirements with electrical utility company

ADDITIONAL INFORMATION

TIME GAPS

Start Date	End Date	Explanation
December 1967	August 1968	preparation for entrance exams to college

NCEES
credentials evaluations

Application ID: 14184

Isaak Shafir

Qualification Evaluation Report

Entry into the professional practice of engineering and surveying in the United States and its territories is regulated by state laws. Most licensing boards require at least a bachelor's degree from a four-year program that has been accredited by the Engineering Accreditation Commission (EAC) of ABET, INC., or a comparable foreign degree. The evaluation of your academic studies has been prepared to provide engineering and surveying licensing boards with the required assessment of foreign qualifications to faciliate them in determining if you qualify for licensure examination. This is an advisory report prepared based on records received or verified by the institutions issuing the degrees or qualificiations. Eligibility to take the examination is determined by the licensing boards.

Evaluation date: 02/26/2010

Name: Last (Family): Shafir **First (Given):** Isaak **Middle: Maiden/Other:**

Date of birth: 09/16/1947 **Gender:** M

Country of citizenship: United States

Country of studies Latvia

Purpose of original evaluation: Licensure as a Professional Engineer by comity with license in another jurisdiction

Originally applying to: Hawaii Board of Professional Engineers and Surveyors

COMPARABILITY SUMMARY

The program completed fulfills the required curricular content of the EAC /ABET general and program criteria for an accredited program in Electrical & Computer Engineering and is considered equivalent to an ABET accredited program.

This report does not include the assessment of written and oral communication skills, computer skills, the quality of laboratory or field work, and the scope of design experience, which require an onsite review. Academic records (such as transcripts and catalogs) do not document qualitative factors and practical constraints to desirable outcomes.

EDUCATION SUMMARY

Name of university or postsecondary institution: Rigas Polytechnic Institute (now Rigas State Technical University)
The institution awarding the degree is accredited or recognized by the educational authorities in Latvia.

Degree/qualification earned: Electrical Engineer (electrical mechanic; electr machines/apparatus)

Major or concentration: Electrical & Computer Engineering

Dates of enrollment: 09/1968 - 05/1972

Standard program length: 5 years

Overall academic assessment:

The records submitted indicate that the applicant attended Rigas Polytechnic Institute (now Rigas State Technical University) in Latvia. He enrolled in a five-year degree program with a concentration in Electrical Machines and Apparatus and completed in 1972 a degree in Electrical Engineering (specialization electrical mechanics). Admission to the program was based on completion of a college preparatory high school program. The program completed is recognized as the first professional degree in engineering and allows the holder to practice legally the profession in Latvia (former USSR).

Graduation from the program required completion of a design project and defense of a final thesis. Please note that the project was not listed in the evaluation since no hours for completion of the project were assigned by the university. The topic of the final thesis was "Non-contact Synchronous Generator for Power Supply of Electrical Radio Technical Apparatus."

Traditionally, five-year engineering programs in former USSR contain a mandatory engineering design component, in the form of course projects and final project. Due to the variable nature of these projects, their content is not specified in course descriptions. In this evaluation, the engineering courses with projects are considered to be the courses with the design component and are identified with a "#" sign.

At the time of study, the language of instruction at Rigas Polytechnic Institute (now Rigas State Technical University) was Russian.

Please note, since the university was unable to provide course descriptions for the program completed in 1972, this evaluation was based on the information available from course descriptions of similar programs and on the historical data contained in the reference books listed below.

Country references
http://www.edu.ru/db/portal/spe/index.htm
Discipline Applicable Course Description
World Education Series: USSR, 1966
Applicable EAC / ABET criteria

CRITERIA ANALYSIS

Degree/qualification earned: Electrical Engineer (electrical mechanic; electr machines/apparatus)

Note: Courses with an asterisk (*) indicate advanced placement examinations (German Abitur, French Baccalaureate, British Advanced-Level Examinations, etc.). A pound symbol (#) indicates courses with engineering design.

I. Math/Basic Sciences (specified criteria hours = 32)

Subject Name	U.S. credits
Chemistry	6.4
Higher Mathematics (diff equat, diff/integral calculus, statistics)	17.17
Physics (calculus-based, incl. topics from chemistry)	10.24
Theoretical Mechanics (with differential equations)	4.59
Total semester credit hours earned	38.4

II. Humanities/Social Sciences (specified criteria hours = 16)

Subject Name	U.S. credits
Aesthetics	1.36
Foreign Language II (unspecified, incl. literature excerpts)	5.31
History of the Communist Party of the Soviet Union	4.48
Marxism-Leninism Philosophy	3.95
Political Economy	5.27
Scientific Communism	2.79
Total semester credit hours earned	23.2

III. Engineering Sciences and Design (specified criteria hours = 48)

Subject Name	U.S. credits
Automated Control of Electrical Machines	4.44
Basics of Electric Power Engineering	0.68
Calculations & Design of Machines & Mechanisms #	6.59
Construction Materials & Metal Technology	2.71
Design of Electrical Machines & Apparatus #	1.69
Electric Drive	3.01
Electrical Engineering Apparatus #	4.4
Electrical Engineering Materials	2.03
Electrical Machines #	7.87
Electrical Machines & Apparatus (special course)	2.71
Electrical Measurements	3.39
Electrical Part of Power Stations #	2.64
High Voltage Engineering	2.03
Industrial Electronics	2.56
Mechanical Engineering Technology	2.71
Production of Electrical Machines & Apparatus	3.39
Theory of Automatic Control #	2.71
Theory of Electricity	12.42
Thermal Engineering	2.56
Total semester credit hours earned	70.5

IV. Elective/Other hours completed to fulfill overall program semester credit requirements

Subject Name	U.S. credits
Civil Defense	2.03
Computers	2.03
Computers in Engineering & Economics Calculations	1.51
Descriptive Geometry & Drawing	6.7
Economics of Electrical Industry	2.03
Foreign Language I (unspecified, grammar)	5.31
Labor Protection	2.07
Organization, Planning & Management of Enterprise	3.39
Patents	0.68
Total semester credit hours earned	25.8
Total semester credit hours earned in the program	157.9

LETTER OF EXPLANATION

SELF-VERIFICATION

Work Experience
Rolling Stock Manufacturing Plant
Aug. 1972 — May. 1977

Verifier
Isaak Shafir (Self)

Verification Date
10/29/2025 01:01am EDT

EXPLANATION

It was almost 50 years ago. I have not kept in touch with co-workers. They were older than me and are probably dead now. And it was in another country.

LETTER OF EXPLANATION

SELF-VERIFICATION

Work Experience	Verifier	Verification Date
Pullman Standard Jun. 1977 — Dec. 1979	Isaak Shafir (Self)	10/29/2025 01:01am EDT

EXPLANATION

It was long time ago. I am not in touch with co-workers any more.

LETTER OF EXPLANATION

SELF-VERIFICATION

Work Experience
Gibbs & Hill
Jan. 1980 — Mar. 1982

Verifier
Isaak Shafir (Self)

Verification Date
10/29/2025 01:02am EDT

EXPLANATION

It was long time ago. I am not in touch with co-workers anymore

Environmental

MIRINDA JONES (24-262-90)

All work experience reviewed by two licensed professionals

DISCIPLINE: ENVIRONMENTAL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
10/31/2025

Citizenship
United States

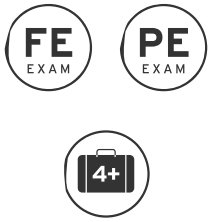
SUMMARY

Engineering Experience after EAC degree

Total Engineering Experience
11 years, 8 months

Experience under licensed engineer
4 years, 7 months

Disciplinary Action
None reported



EDUCATION

Non-degree
Great Basin College
August 2002–May 2004

Bachelors in Environmental Chemistry
University of Nevada, Reno
August 2004–May 2007

Masters in Civil and Environmental Engineering
University of Nevada, Reno
August 2007–May 2009

EXAMS

Fundamentals of Engineering (FE)
Nevada
March 2024

Principles and Practice of Engineering (PE)
Environmental
Nevada
January 2025

LICENSES

Additional Licenses
None

MIRINDA JONES (24-262-90)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Jerritt Canyon Gold
Nevada (United States)
Environmental Coordinator
May 2009—September 2013

Verified by
Mirinda Jones (Self)

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

TASKS

Environmental Coordinator (2009-2013)
As an environmental coordinator, I was responsible for maintaining permits and policies related to environmental regulations. I conducted inspections and provided the operations teams with recommendations for improvement and corrective actions needed to maintain compliance. I was also responsible for conducting annual refresher training to train employees on environmental regulations and site specific environmental requirements. I was required to stay abreast of law and regulation changes and support the Environmental Manager in supporting site compliance.

REPRESENTATIVE PROJECTS

Project Scope: Closure of the Heap Leach Pad Barren Pond, 2010 to 2013
I was responsible for overseeing the third-party closure of a heap leach pad pregnant pond. Closure requirements were determined by the State of Nevada approved Final Plan for Permanent Closure (FPPC). It was my responsibility to conduct the sampling detailed in the FPPC prior to and post-closure of the pregnant pond to confirm initially that the information provided in the FPPC remained accurate and post-closure sampling (a minimum of three years of sampling is required) confirmed that closure was successful. I was responsible for documenting the closure activities, including daily field logs with photo documentation, for submission to the FPPC design engineer.

Project Scope: Permitting and Construction of Refinery Controls, 2011-2012
I participated in the project planning and served as the environmental representative to support the design. I participated in project meetings, design review, and site walks. I completed technical analysis to confirm the submittals were acceptable for regulatory compliance. I was responsible for coordinating meetings with the State of Nevada to provide details on the control system before permit submission and prepared the permit applications.
I conducted weekly sight installation review to support field installation by verifying proper placement and alignment of equipment, and documenting any required changes so they could be accurately reflected in the final permitting as-built documentation.
I contracted with the third party emissions testing team. I was responsible for ensuring the contractor completed the testing as specified by the EPA method. During emissions testing, I conducted observations to confirm adherence to the method requirements and testing integrity. I reviewed the emissions test reports to identify any test deviations and confirm compliance with permitted emission limits.

MIRINDA JONES (24-262-90)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Jerritt Canyon Gold
Nevada (United States)
Environmental Manager
December 2013—January 2021

Verified by
Kevin Small
ndaminingengineering@gmail.com

Experience Summary
Full-Time
Engineering: 7 years, 1 month
Experience under licensed engineer: None

TASKS

I oversaw the site's environmental permits and prepared site documents for operations teams to ensure compliance with regulations, minimize environmental impacts, and promote sustainable practices across the site. I was required to integrate technical knowledge, regulatory proficiency, and management skills to guide the environmental team and environmental programs from project inception through closure and reclamation.
I implemented and maintained environmental management strategies at site to align with corporate objectives, regulatory requirements, and community expectations. I was responsible for assessing environmental risks associated with site projects, legacy contamination issues, air emissions, surface disturbance, waste management, and creating comprehensive plans to mitigate risks while continuing project operations. I collaborated with interdisciplinary teams, including engineers, geologists, and ecologists, to complete environmental reviews of proposed projects, analyzing water quality, air quality, stakeholder concerns, and other project planning needs to support final designs.
Ensuring regulatory compliance across all phases of mining was a key responsibility. I oversaw the preparation and submission of permit applications and compliance reports. I was required to regularly review and ensure documentation and site plans meet federal, state, and local requirements. This involves working with regulatory agencies to secure approvals, address comments or concerns, and maintain ongoing compliance through regular reporting and audits.
I was responsible for leading the design and execution of reclamation and closure activities, including overseeing engineering solutions like regrading slopes, capping tailings, or revegetating disturbed areas to prevent erosion and promote ecological recovery, while ensuring the stability of closed sites through geotechnical and hydrological evaluations. I was also responsible for ensuring the safe management of tailings or waste rock, including proper storage to minimize risks like groundwater contamination.
Project and team management are central to the role. I set environmental project goals, developed budgets and schedules and monitored project progress to ensure timely and cost-effective delivery.

REPRESENTATIVE PROJECTS

Project Scope: Closure of the Tailings Storage Facility 1, 2015-2021
I initiated closure of the original (1986) Tailings Storage Facility (TSF). I reviewed the FPPC prior to commencement of closure, to ensure compliance with current NAC 519 regulations. I was responsible for construction site walks, survey review to confirm material volumes, placement locations and grading, observe safe operation of equipment, and ensure proper maintenance and storage of equipment in compliance with environmental regulations. I was responsible for communicating project status and schedule deviations both internally and to stakeholders, particularly the NDEP. I regularly presented status updates and next steps to the NDEP.
I was responsible for completing the scoping and bidding process for liner installation and conduct construction activities previously described.
I was responsible for permitting the geotechnical drill holes and site disturbance work for the borrow source investigation. I reviewed material results to confirm the material could support vegetation and was free of contamination.

Project Scope: Permitting and construction of Fine Crushing Conveying System, 2017-2018
I was responsible for permitting and engineering review of modified fine crushing and conveying system. Permits administered by the NDEP-BMRR and BAPC required modification as well as building permits issued by Elko County. I was responsible for reviewing the designs to confirm compliance with both the state and county regulations. Once determined to be accurate, I prepared the State permit applications. The engineer prepared county permit applications. I conducted weekly construction site walks to confirm adherence to the engineered design. After construction, I was responsible for coordinating the final county inspection. I submitted the final as-built drawings to the state and notified them that construction was completed and startup planned.

Project Scope: Design, construction, and operation of a Water Treatment Plant, 2018 to 2021

I reviewed the third party source water quality assessment. The source water assessment analyzed physical, chemical, and biological characteristics, and contaminants like heavy metals, to determine the appropriate treatment processes. I was responsible for permitting the site-based pilot study. Permitting involved surface disturbance, installation of a temporary treatment plant, and construction of a piping network.

After proof of concept, I was responsible for the review of the third-party hydraulic and process calculations to size the treatment units, pipelines, pumps, and storage systems, ensuring adequate capacity to meet demand while minimizing operational costs. Detailed engineering designs included process flow diagrams, piping and instrumentation diagrams, and site layouts. As part of my review, I was responsible for incorporating considerations for site-specific conditions like topography, climate, and available infrastructure as well as evaluating sludge disposal and chemical usage.

I reviewed the technical specifications and construction drawings, detailing materials, equipment, and installation requirements to ensure compliance with industry standards and safety regulations, such as those from MSHA and NDEP. I also reviewed and provided comments on the control systems to enable an eventual connection to the site's existing control system.

I was responsible for managing the project budget and schedule which included meetings with regulatory agencies to provide alignment with the design and operational needs. I was the site representative responsible for overseeing construction activities as well as managing contractors and suppliers to ensure adherence to specifications, schedules, and budgets. This includes reviewing contractor submittals, (i.e., drawings and material certifications) to verify compliance with design requirements and conducting regular site inspections to monitor construction quality, including concrete foundations, piping installations, and equipment placement.

I was part of the site commissioning team. I was present and participated in startup of the plant, oversaw performance tests to verify compliance and water quality standards. I ensured that issues were corrected by the contractor or engineer and changes were reflected in the drawings and operating manual.

I supported the ongoing performance of the plant by developing SOPs to ensure long-term reliability and compliance with water quality standards. I reviewed reports summarizing water quality test results and operational metrics, and addressed any deviations to ensure proper operations. I completed regular inspections to evaluate safety, environmental compliance, and functionality of water treatment plant and the components.

I was responsible for identifying and bringing forward project risks, ensuring safety protocols are followed, and regularly evaluate the plant's environmental impacts, incorporating sustainable practices like energy-efficient equipment or water reuse

MIRINDA JONES (24-262-90)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

NOV
Nevada (United States)
Sr. Environmental Engineer
January 2021—May 2023

Verified by
Michel W Creek
mike.creek@nov.com

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

TASKS

My general duties were to support the mine from an environmental compliance perspective. I was responsible for preparing and submitting compliance reports for each permit held by the facility. Permits that I submitted reports for included Water Pollution Control Permits, General Stormwater permit, 5-year discharge permit and I was responsible for compliance with state fire marshal permits and waste management. I worked with site personnel to complete internal sustainability reporting.

REPRESENTATIVE PROJECTS

Project Scope: Final Plan for Permanent Closure of the Fuel Island
Dates: ~February 2023 to May 2023
I was responsible for working with a third party contractor to develop a Final Plan for permanent closure for the closure of the Big Ledge Mine fuel tanks and disposal of contaminated soil associated with the fuel tanks. I conducted the sampling of the soil beneath the containment to identify the extent of the contamination.

Project Scope: Support submittal of Evaporation Pond As-Built documentation
Dates: ~June 2022 to September 2022
Prior to my arrival at NOV, engineering and construction activities to build two evaporation ponds had been completed. After I arrived, the NDEP responded to the submittal of the As-Built documentation prepared by the engineer of record. For approximately one month, I worked with the site personnel and engineers of record to respond to the NDEP questions and clarifications. These questions and clarifications primarily surrounded discrepancies in the original piping design as compared to what was constructed. It my responsibility to understand the discrepancies through design review and clearly communicate why the deviation and working with the design engineers, coordinate update piping diagrams to meet NDEP requests.

WORK EXPERIENCE

Haley & Aldrich, Inc.
Nevada (United States)
Sr. Technical Specialist, Environmental Engineer
May 2023—January 2025

Verified by
Richard Joseph Frechette
RFrechette@haleyaldrich.com

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

TASKS

I regularly prepare permitting documents for both state and federal permits. Preparation of the permits, specifically the state permits, requires detailed review of prepared engineered plans. I am required to review the designs to ensure they meet NAC requirements such that a Water Pollution Control Permit can be issued or a Final Plan for Permanent Closure can be approved. Each permit or plan review requires approximately 20 to 30 percent of the project time.

REPRESENTATIVE PROJECTS

Project Scope: Development of a Final Plan for Permanent Closure of a mine site that operates a heap leach pad near Imlay, Nevada.
Dates of Project: This project is currently underway and began in October 2024.
I have developed the Plan documents and am preparing the design now. The design includes closure of the heap leach pad to meet the closure requirements outlined in Nevada Administrative Code, including design for regrade of the HLP as well as calculations for sizing and design of the evaporation cells (E cells) for long term management of the heap leach draindown solution.

Project Scope: Development of an Engineering Design Change for a mine site that operates a heap leach pad near Imlay, Nevada.
Dates of Project: This project is currently underway and began in October 2024.
I am currently designing a liner extension of a heap leach pad for proper closure of the HLP. The HLP is required to be graded to 3H:1V, which requires the designed liner extension to keep the process material on containment. As part of this project, I will include a stormwater channel to contain the covered heap leach pad runoff and route it to an existing stormwater channel. This project involves operational considerations because the liner extension will impact an operating haul road. Construction considerations include liner crew safety and compliance with MSHA requirements for the continued operation of the haul road.

Project Scope: Complete a stormwater management alternatives analysis.
Dates of Project: This project is currently underway and began in August 2024.
I am currently conducting a Stormwater Alternatives analysis for a mine in closure. The site has not operated for multiple years and the previous closure requirements do not meet current requirements for Nevada. Currently, the open pit overflowed and damaged the road and downgradient facilities. As part of the analysis, we evaluating three alternatives for diversion of an upgradient creek that is flowing into an open pit. The alternatives analysis includes three alternatives. As part of the project, I reviewed the stormwater runoff modeling completed by others to determine peak runoff values. Using the peak runoff values determined from modeling, I calculated the required channel size for Option C and the total storage volume of the existing pit that is part of the design of Option A.

Project Scope: Prepare 30% design for initial discussions with regulatory agencies for engineered wetlands.
Dates of Project: The project began in August and was completed by September 2024.
I prepared a 30% design for a conceptual wetland in Washington State. The wetland will be used as a overflow from a WTP discharge. As part of the design, I had to calculate the maximum inflow based on discharge from a WTP combine with precipitation and prepare the wetland design to accommodate that flow. Using the calculated flow, I designed (30%), the proposed wetlands and outflows.

Project Scope: Preparation of a Water Pollution Control Permit
Dates: Began in May 2024 and is ongoing for a new mine in Southern Nevada.
Information for the Water Pollution Control Permit was provided by other contractors, including all facility designs (mill and support facilities, heap leach pad, pits, overburden management areas, etc.). As the person developing the application, the client requested a detailed review of the engineering designs provided by the third parties to identify regulatory deficiencies. Feedback

was provided to the client and design engineer for revisions to meet NDEP regulatory requirements. This review was completed in August 2024.

MIRINDA JONES (24-262-90)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Haley & Aldrich, Inc.
Nevada (United States)
Senior Technical Specialist
January 2025—August 2025

Verified by
Kennet Bertelsen
KBertelsen@haleyaldrich.com

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

TASKS

I regularly prepare permitting documents for both state and federal permits. Preparation of the permits, specifically the state permits, requires detailed review of prepared engineered plans. I am required to review projects for completion in order to submit adequate state and county permits.

REPRESENTATIVE PROJECTS

February 2025 to July 2025 -
I developed a WaterCAD model for an existing city potable water system. I was using WaterCAD to help inform the city council of point of concern in the system that would require upgrades as population increased. I also used the model to evaluate the fire flow capabilities of the city to identify deficiencies.

February 2025 - July 2025
Prepared SEPA documentation for a manufacturing expansion in the State of Washington. To prepare the SEPA documentation, I had to review drawings prepared by the engineer and use that review to correctly inform the State of Washington of the proposed development plans. This included reviewing traffic studies, waste water management permits, geotechnical studies of the area, cultural studies, and all other relevant drawing details.

February 2025 - August 2025
Prepared multiple Mine Plan of Operations for mining operations in Arizona. A Mine Plan of Operations is a formal submission required by the BLM for mining claimants to conduct operations for locatable minerals on public lands. I was responsible for preparing the plans for submission and responsible for preparation of the surety calculators.

Mechanical

PATRICK DIB (17-174-59)

All work experience reviewed by two licensed professionals

DISCIPLINE: MECHANICAL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
12/01/2025

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
7 years, 4 months

Total Engineering Experience
7 years, 4 months

Experience under licensed engineer
5 years

Disciplinary Action
None reported

ABET EAC

FE EXAM

PE EXAM

4+

EDUCATION

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

EXAMS

Fundamentals of Engineering (FE)
Nevada
April 2018

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

LICENSES

Additional Licenses
None

WORK EXPERIENCE

NV5 Inc
Nevada (United States)
Mechanical Designer
June 2018—September 2019

Verified by
Alex Jankovic
alex.jankovic@nv5.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

During my tenure as a Mechanical Designer my tasks and duties included the following:

HVAC System Design: I developed HVAC systems for several types of commercial, educational, and industrial buildings in accordance with all local codes and standards. I also developed complete plumbing systems including sanitary sewer, storm drainage, domestic water, natural gas, and medical gas.

HVAC and Plumbing Calculations: To design the mechanical systems and select equipment appropriately, I performed several types of HVAC and plumbing calculations including: ventilation, duct and pipe pressure loss, internal heat gain, and piping velocity calculations. I prepared the calculation reports using several software packages such as Trace 700 and Carrier HAP. I presented the load calculations to senior engineers to validate my design inputs.

Drafting and Discipline Coordination: I was also responsible for drafting up designs in both AutoCAD and Revit. I ensured all components were coordinated with all other disciplines.

Equipment Schedules: I selected various types of mechanical and plumbing equipment based on specific design parameters to produce complete equipment schedules to meet the project goals.

Food Service Coordination: I coordinated directly with food service consultants to ensure all equipment sensible and latent heat loads were accounted for in the HVAC design. I also ensured all plumbing connections were designed with respect to local health district requirements.

REPRESENTATIVE PROJECTS

Pizza Cake TI by Buddy Valastro
Harrah's Las Vegas
2019

I designed the mechanical HVAC and plumbing systems to serve a new restaurant tenant improvement on the Las Vegas Strip, taking over an existing retail store. The mechanical system included new VAV boxes to serve the front-of-house and back-of-house zones, as well as an air curtain to serve a walk-up serving window. I also coordinated with food service consultants to determine the sensible and latent loads of the equipment, as well as any specific venting requirements from hoods and ovens. The plumbing scope consisted of both sanitary and grease waste from the kitchen, both tying into existing laterals within the casino.

Opportunity Village - Betty's Village
Las Vegas, NV
2018-2019

I designed the mechanical HVAC and plumbing systems for an assisted-living facility in Las Vegas, NV. The site consists of 20 duplex and triplex residential buildings with a central clubhouse and administration building. The residential buildings consisted of single-zone split-system heat pumps for each tenant while the central clubhouse was designed with a packaged rooftop system for the common areas and individual split systems for recreational spaces.

Choctaw Casino Expansion
Durant, OK
2018-2019

I was responsible for designing and coordinating the distribution of plumbing and hydronic piping to all guestrooms in the 1,000+ room hotel expansion. I coordinated with all other trades to standardize piping layouts per room type and locate the points of connection on each floor. I also calculated the total loads for each room and sized distribution piping down to the podium level.

WORK EXPERIENCE

Harris Consulting Engineers
Nevada (United States)
Mechanical Designer
September 2019—December 2022

Verified by
Kent Thomas Bell
kbell@harrisengineers.com

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

TASKS

During my tenure as a Mechanical Designer my tasks and duties included the following:

HVAC System Design: I developed efficient and sustainable HVAC systems for several types of commercial, educational, and industrial buildings in accordance with all local codes and standards. I also developed complete plumbing systems including sanitary sewer, storm drainage, domestic water, natural gas, and medical gas.

HVAC and Plumbing Calculations: To design the mechanical systems and select equipment appropriately, I performed several types of HVAC and plumbing calculations including: ventilation, duct and pipe pressure loss, internal heat gain, and piping velocity calculations. I prepared the calculation reports using several software packages.

Drafting and Discipline Coordination: I was also responsible for drafting up designs in both AutoCAD and Revit. I ensured all components were coordinated with all other disciplines.

Construction Administration: I reviewed and responded to Submittals, RFI's, Change orders, and Substitution requests during construction.

Project Management: I facilitated coordination between all project stakeholders to ensure timely submissions and ensure adherence to the project goals.

Equipment Schedules: I selected various types of mechanical and plumbing equipment based on specific design parameters to produce complete equipment schedules to meet the project goals.

Specifications: I drafted and reviewed technical Division 22 and 23 specifications to provide a complete definition of all project requirements to the construction team.

REPRESENTATIVE PROJECTS

Mater East Campus (Phase I, II, III)
3900 E Bonanza Rd, Las Vegas, NV
2020-2022

This project involved a full mechanical rooftop unit replacement design to an existing charter elementary school located in Las Vegas (Phase I), as well as two new additional two-story middle and high school classroom buildings and a gymnasium on the site (Phases II and III). For Phase I, I analyzed the existing building HVAC system based on as-builts and performing several field visits. To balance operational costs with capital costs, I selected high-efficiency packaged gas-fired rooftop units to utilize the existing natural gas connection on site, while also maintaining the existing roof penetrations and ductwork as much as possible. I also designed new natural gas piping to accommodate the new units. For Phases II and III, I was the lead plumbing designer and worked with all other disciplines to provide a complete sanitary waste and domestic water system to all classrooms, offices, and recreational spaces on the campus.

All-Storage Facilities
3 Sites across Las Vegas and Henderson, NV
2021-2022

My role in this project was to produce a full HVAC and plumbing design for 12 self-storage buildings across 3 sites in the Las

Vegas - Henderson Metro. For conditioned storage buildings, I selected several large evaporative coolers and relief louvers to provide efficient cooling without over-pressurizing the building. For heating and freeze-protection of fire sprinkler lines in all buildings, I selected electric unit heaters. I provided all occupied front-of-house spaces and utility rooms with DX fan coils to for both human comfort and demand-controlled heating and cooling. The plumbing design primarily consisted of sanitary sewer and domestic water for the occupied spaces, as well as make-up water lines for the evaporative coolers in the storage spaces.

Arca Apartments Phase I and II
2022
Las Vegas, NV

My role in the Phase I portion of the Arca Apartments complex - consisting of 2 three-story residence buildings, a pool/clubhouse building, and an admin office building was as a technical peer reviewer for the mechanical and plumbing design performed by another engineering firm. The review was requested since the owner had concerns about the workmanship and quality of the original design firm. As the reviewer, I flagged several design errors and potential constructability concerns and provided my engineering judgement to the owner. Based on this review, I was selected to be the primary plumbing designer on the Phase II portion of the apartment complex - consisting of 4 additional three-story residences with an underground parking garage. I provided a full plumbing design consisting of sanitary, storm drainage, domestic water, and natural gas. I coordinated all piping with other disciplines, as well as with the Phase I design.

WORK EXPERIENCE

Vadatech Inc
Nevada (United States)
Mechanical Engineer
January 2023—May 2025

Verified by
Domenic De Rubis
d.derubis@gmail.com

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

TASKS

My duties and tasks as a Mechanical Engineer at Vadatech included the following:

3D Design and Modeling - I developed 3D designs for embedded computing system products. More specifically, I was responsible for designing parts of the enclosures for Printed Circuit Assemblies such as panels, mounting plates, heatsinks, EMI shields, and chassis components. The scope of the design varies according to electrical requirements, as well as the system architecture standard such as ATCA, OpenVPX, MicroTCA, PCI, etc. These enclosures needed to provide: structural support, heat dissipation, electrical component access, EM interference shielding, and the capability to integrate into a larger assembly if applicable.

Environmental Testing: I performed vibration and thermal testing on several ruggedized products to ensure the products can withstand the environmental conditions of the end customer. During these tests, I collected data from accelerometers and thermocouples to provide feedback to the engineering team for ruggedization design improvements.

Engineering Drawings: I produced and released engineering drawings and BOMs of parts and assemblies that conform to ASME Y14.100 drawing standards and ASME Y14.5 GD&T standards. I followed standard version-control best practices to capture the full design history of parts.

Production Support: I coordinated directly with the manufacturing and assembly floor to investigate any design issues found during assembly and relay the information back to the design team.

Engineering Change Orders: I drafted and released ECO's to update designs due to updated product requirements, DFM/DFA issues, engineering issues, or based on feedback from product testing.

REPRESENTATIVE PROJECTS

STE128 (Special Test Equipment for Vadatech ATC128 Boards)
Henderson, NV
October 2023 - May 2024

The Vadatech product test team requested an all-in-one, portable test bench to streamline environmental stress screening (ESS) of the ATC128 Processor boards. The volume of boards needing to be screened before shipment was creating a bottleneck due to the complexity of the testing requirements and the set-up time needed for each board to go through both thermal and vibration testing.
Given a network diagram from the test team, I designed, procured, constructed, and validated the STE128 rack and all internal and external cables. I modeled the rack with all internal components in Solidworks to determine the optimal layout and efficient cabling. I designed several sheet metal brackets, panels, and mounting hardware and had them fabricated by the Vadatech machine shop. I also designed several 3D-printed holders for all internal networking equipment, as well as cable retention clips for efficient cable management. I created and released a master network diagram for all power and data cables with all part numbers, lengths, functions, and labels. Once all physical construction was released, I validated the functionality of the test rack with the software team and corrected any bugs and issues before deployment. The test rack is still currently in operation.

ATC Board Failure Investigation
Henderson, NV
April 2024-September 2024

I investigated a catastrophic failure event on several ATC Vadatech products after delivery to the end-customer. Once reviewing the damaged customer board, I created and presented a fish-bone diagram to determine root cause based on I conducted several technical reviews with engineering, manufacturing, and quality to trace potential causes of failure. I performed a tolerance stack up of several components to determine the likelihood of improper contact with the PCB. Ultimately, it was determined that there was an engineering defect with one of the mechanical parts that most likely caused a short to ground on the board. I designed and released modification instructions to the existing part and coordinated with the client to process the replacement effort for all deployed boards.

WORK EXPERIENCE

Parsons
Nevada (United States)
Project Engineer
May 2025—November 2025

Verified by
Judy Mae Kareck
judy.kareck@parsons.com

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

TASKS

My duties and tasks as a Design Project Engineer for Parsons include:

I review technical engineering design packages including MEP plans, civil plans, geotechnical reports, Process and Instrumentation Diagrams, and drainage studies for large-scale water treatment and facilities projects to verify design intent and adherence to project standards.

I review technical equipment information, including: HVAC load calculations, pump curves, datasheets, hydraulic analyses, and pipe velocity calculations to validate equipment selection criteria. Based on the results of this data, I make engineering recommendations in regards to meeting project design criteria, as well as meeting client operational requirements.

I review and disposition technical submittals and RFI’s submitted by contractors to ensure compliance with the contract documents, as well as all regulatory codes and standards applicable to the project.

I coordinate and communicate with all consultants and project team members to keep the project within scope and budget.

REPRESENTATIVE PROJECTS

Valley View Chiller Replacements
Las Vegas, NV
May 2025 - Present

The Las Vegas Valley Water District campus has been in operation since the 1950's and is requiring replacements to several aging HVAC systems. Due to a recent moratorium issued by the Southern Nevada Water Authority, all new mechanical equipment installed within its jurisdiction must not consume water - in an effort to conserve water due to persistent drought conditions. My role in this project is to investigate and review several types of mechanical system solutions to replace the existing chiller and cooling towers, with as minimal disruption as possible to the remainder of the building's infrastructure. My recommendation of the final system will depend on several factors, including: equipment dimensions, power requirements, capital costs, noise, maintenance and operational costs, controls integration, and environmental considerations. I will be reviewing all design drawings, specifications, calculations, and equipment selections received from consultants to provide technical feedback before presenting to the District. Since this is an ongoing project, a final design matrix and memorandum has not been completed. However, once a decision has been made, I will be working with other consultants to produce a set of contract documents in order to proceed with the replacement.

AMSWTF New Fleet Building
Boulder City, NV
July 2025 - Present

My role in this project is to review and provide recommendations for a new fleet maintenance garage building at Alfred Merritt Smith Water Treatment Facility at Lake Mead. I will be reviewing all site reports such as drainage studies, utility borings, and geotechnical reports to determine the exact building location. In addition, I'll be reviewing all building design documents such as architectural drawings, MEP plans, structural plans for conformance with the owner's project requirements.

MICHAELA SORRENTINO (19-810-76)

All work experience reviewed by two licensed professionals

DISCIPLINE: MECHANICAL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
11/26/2025

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
6 years, 2 months

Total Engineering Experience
6 years, 2 months

Experience under licensed engineer
6 years, 2 months

Disciplinary Action
None reported

EDUCATION

Bachelors in Mechanical Engineering (EAC)
University of Portland
August 2015–May 2019

Masters in Industrial Engineering
Oregon State University
September 2020–March 2022

EXAMS

Fundamentals of Engineering (FE)
Oregon
May 2020

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

LICENSES

Additional Licenses
None

MICHAELA SORRENTINO (19-810-76)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Hyster-Yale Materials Handling
Oregon (United States)
Hydraulic Design Engineer
June 2019—August 2025

Verified by
Joseph Allen Brotherton
joseph.brotherton@hyster-yale.com

Experience Summary
Full-Time
Engineering: 6 years, 2 months
Post EAC degree: 6 years, 2 months
Experience under licensed engineer: 6 years, 2 months

TASKS

I developed hydraulic components and systems for internal combustion engine (ICE) and electric rider (ER) forklifts, starting off with individual components (hoses, tubes, and brackets) and working my way up to developing the hydraulic systems for four ER forklifts. I reviewed feedback from external groups, such as manufacturing and other design departments (like the electrical and frame teams), and made design changes or recommended alternate solutions based on my findings. I calculated pressure ratings, fluid velocities, and bend radii for hoses and tubes, to ensure system robustness for any application. I analyzed data such as tank volumes/dipstick heights and hoist performance (comparing calculated speeds to test data, and making adjustments to calculations as needed, so that the published performance values would better align with what testing had yielded).

REPRESENTATIVE PROJECTS

Hydraulic Design Updates for ICE Forklifts
IRIS ICE – P23, C23, P12 and C12
June 2019 – December 2020

I designed hydraulic plumbing components and retention methods (i.e. brackets and clamps to support hoses and tubes across the forklifts). I reviewed feedback from other cross-functional groups (manufacturing, service, electrical, etc.) and made design changes accordingly.

Hydraulic Valve Replacement on Current Production Forklift
Project LUCY – 23CBB
August 2021 – July 2024

As the lead design engineer, I modified components within one of the current production electric forklifts, in order to accommodate the new hydraulic valve that was to be installed in the trucks. I redesigned the hydraulic plumbing, mounting bracketry, and manual levers, based on the layout of the new valve. I reviewed these changes with the manufacturing and service teams in order to streamline the replacement process as much as possible, and made additional design changes based on their feedback following a validation build.

Hydraulic System Design for Electric Rider Forklifts
IRIS ER – 23DBB, 23CBB, 12DBB and Lg3W
January 2021 – August 2025

As the hydraulic design lead for the project team, I designed the hydraulic systems for four electric rider forklifts (plumbing layout and retention, mounting methods for major hydraulic components, tank design, etc.). I maintained spreadsheets of the hoses and tubes for each of the IRIS ER trucks, to keep track of pressure, fluid velocity, and bend radii data, and make sure the systems were compliant with internal organization and supplier standards. I redesigned the 23CBB's welded tank assembly and had to determine the oil volumes required for the larger IRIS mast cylinders, and worked with the frame, operator station and electrical leads to add this volume to the tank.

MICHAELA SORRENTINO (19-810-76)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Entertainment Project Services
Nevada (United States)
Mechanical Designer
August 2025—November 2025

Verified by
Michaela Sorrentino (Self)

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

TASKS

I designed various structural components for an opera set (like sheet metal brackets and square steel tube framing). Using my previous design experience, I have also released engineering drawings (component, weldment, and assembly) for vendor and client usage.

REPRESENTATIVE PROJECTS

Opera Set Design
August 2025 - Present

I designed a staircase and other set elements for an opera. Using CAD, I completed structural analyses to ensure that the stairs would support the actors. The staircase breaks up into four units and sits upon casters for easy set changes and storage, and I used the weight of each unit and the rated load of the casters in order to determine the appropriate number of casters required per unit.

ALEXANDER SZEPELAK (17-514-04)

All work experience reviewed by two licensed professionals

DISCIPLINE: MECHANICAL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
11/21/2025

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
8 years, 1 month

Total Engineering Experience
8 years, 1 month

Experience under licensed engineer
8 years, 1 month

Other Experience

Disciplinary Action
None reported

EDUCATION

Bachelors in Mechanical Engineering (EAC)
University of Nevada, Las Vegas
August 2013–May 2017

EXAMS

Fundamentals of Engineering (FE)
Nevada
March 2017

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

LICENSES

Additional Licenses
None

ALEXANDER SZEPELAK (17-514-04)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Decatur Drug and Liquor
Nevada (United States)
Contract Unit Postal Employee
June 2013—August 2014

Verified by

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

DESCRIPTION

ALEXANDER SZEPELAK (17-514-04)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Marquis Aurbach Coffing law firm
Nevada (United States)
Scan/File clerk
August 2014—January 2016

Verified by

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

DESCRIPTION

ALEXANDER SZEPELAK (17-514-04)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Unemployed
Nevada (United States)
I quit my job at the law firm to focus on school. I then started my internship at NV Energy
January 2016—May 2016

Verified by

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

DESCRIPTION

ALEXANDER SZEPELAK (17-514-04)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

NV Energy
Nevada (United States)
Engineering intern
May 2016—June 2017

Verified by
Alexander Szepelak (Self)

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

TASKS

My tasks were to assist the distribution planning engineers and project manager within the distribution planning department with projects that spanned from a few days to a few months.

REPRESENTATIVE PROJECTS

During the hottest day of the year, energy demand is the greatest on the energy grid. Demand information is needed to determine which, if any, substations are near capacity. I was tasked with gathering demand information shortly after the hottest day of the year and organizing the date based on geographical location within southern Nevada, and whether the substation was about 90% capacity. This information was given to distribution planning engineers to determine how to appropriately service energy customers on substations near demand.

I assisted the department's project manager with updating information regarding capacitor banks throughout southern Nevada. This involved gathering capacitor information and updating the information within the NV Energy system. This also involved assigning capacitor bank updates to be assigned to field workers based on geographical location.

ALEXANDER SZEPELAK (17-514-04)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

American Bio Engineers/Aperture
Nevada (United States)
Forensic Engineer
August 2017—April 2025

Verified by
Brian Keith Jones
brian.jones@aperturellc.com

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

TASKS

I was tasked with performing accident reconstruction analyses to determine the cause of the accident and the forces imparted on one of the vehicles during the accident. A typical case would involve myself going into the field and inspecting the vehicles involved in the accident. Photographs and measurements of any damage observed on the vehicle would be documented for further analysis. A download of the vehicle's event data recorder (EDR) would be performed if the vehicle contained one. This information would then be used to perform momentum, energy, and restitution calculations to determine the approach velocity between the vehicles, as well as the change in velocity of the vehicles due to the impact.

For more complicated impacts (i.e., high speed impacts), the roadway where the collision occurred would be inspected utilizing a camera, 3D laser scanner, and a drone to create a 3D diagram of the roadway. Any roadway evidence from the accident would be document during the field inspection. This diagram would then be used within simulation software to recreate the accident and determine impact speeds, approach angles, departure angles, and departure speeds.

Depending on the scope of the requested matter, I would either perform 50% of the work on the matter, of 100% of the work, depending on if the client wanted additional opinions regarding injury causation, or just accident reconstruction opinions.

REPRESENTATIVE PROJECTS

Date: 2018. I was requested to perform an accident reconstruction of a minor rear-end accident that occurred in Las Vegas, Nevada.
I performed inspections of two vehicles that were involved in a rear end accident. Damage to the vehicles was documented and the event data recorder was downloaded. I performed calculations to determine the approach velocity between the vehicles, as well as the change in velocity of the vehicles due to the impact. I then spoke with the client about the calculations, and no further work was requested on the matter.

Date: 2020. I was tasked with performing an accident reconstruction on an accident that occurred in Las Vegas, Nevada.
One matter involved an impact between two vehicles at an intersection at approximately 1 am, during which a rainstorm had knocked out power and the traffic signal lights were not illuminated. The vehicles had collided with each other in the intersection, both drivers stating they came to a stop prior to entering. I performed an inspection of the roadway scene from which a 3d diagram was created and imported into a crash simulation software. I performed simulations of the accident and the impact speeds of the vehicles were determined to be approximately 30 mph and 10 mph. I then performed hand momentum calculations to determine if the 30 mph vehicle could achieve that speed from a stop in the allotted distance. That vehicle could not and I wrote a report of my work performed. That case was then settled prior to me giving any expert testimony.

Date: 2022. I was tasked with performing an accident reconstruction on an accident that occurred in Las Vegas, Nevada.
An accident occurred at an intersection where one vehicle made a left turn on a green light, and another vehicle proceeded through a yield sign, which impacted the left turning vehicle. I performed a scene inspection and a 3D diagram was created and imported into a simulation software. I performed simulations to determine time and distance questions in relation to the location of the vehicles within the roadway at various times. I wrote a report of my work performed, and I gave expert deposition testimony of my work on the matter.

Date: 2022. I was tasked with performing an accident reconstruction of a severe accident that occurred in Las Vegas, Nevada.
An accident occurred on a part of the freeway in Las Vegas that was under construction. A vehicle left the roadway, and upon coming back on the roadway, lost control, spun out, and hit another vehicle traveling the opposite direction. I performed an inspection of the roadway scene, and compared at-scene photographs taken by the police with date appropriate aerial images to determine vehicle path and roadway evidence. I then performed simulations to determine the travel speed of the vehicle that went

off the roadway, and determined it to have been in excess of the speed limit. My manager reviewed and confirmed my work. My manager and I wrote a written report of the work performed and both of us gave expert deposition testimony regarding the case. The case later settled prior to going to trial.

Date: 2022-2023. Research was performed into the deceleration rates of various electric vehicle's regenerative braking and a research paper published by the Society of Automotive Engineers, paper number 2023-01-0623. Electric vehicles were procured and GPS trackers were equipped to the vehicles during testing. The vehicles were then accelerated to 15, 30, 45, and 60 mph and the accelerator pedal was released and the vehicle was slowed by the regenerative braking only. The rate of deceleration was then measured and compared with other vehicle models. I gathered the data and created the charts and figures that were used within the published paper.

ALEXANDER SZEPELAK (17-514-04)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Donan
Nevada (United States)
Forensic Engineer
May 2025—October 2025

Verified by
Matthew Kenneth Parsons
mparsons@donan.com

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

TASKS

My responsibility is to perform studies on evidence to determine if a failure occurred, and if one did occur, what the cause was. I am personally responsible for inspecting approximately 10 to 15 pieces of evidence on a weekly basis. I am responsible for determining the testing required of the evidence to determine whether a failure has occurred or not. I then produce written reports of my findings, and depending on my findings, additional destructive testing is performed on the piece of evidence.

REPRESENTATIVE PROJECTS

Project Number 25076187-ND
I received a dishwasher that was reportedly leaking water when in use. During my study, I inspected the dishwasher for any signs of abuse or impact. I connected the dishwasher to a domestic water supply and energized it. Upon a cycle being started, the heating element flanges were corroded, which allowed water to leak out through their connection to to the inside of the dishwasher. This was identified as a manufacturer's defect, as the flanges can undergo galvanic corrosion due to their chemical makeup and cleaning chemicals in the water. I then wrote a report of my findings and provided that to the client.

Project Number 25097487-ND
I received a dishwasher inlet valve that reportedly failed. During my study, I inspected the valve for any evidence of impact or abuse. I connected the valve to a domestic water supply and upon being pressurized, water began to leak through the armature guide tube, which is used to control the flow of water through the valve when energized. This was determined to be a manufacturer's defect as chlorine in the water supply can degradation to the armature guide tube material used in this type of inlet valve.

LETTER OF EXPLANATION

SELF-VERIFICATION

Work Experience
NV Energy
May. 2016 — Jun. 2017

Verifier
Alexander Szepelak (Self)

Verification Date
10/15/2025 12:58pm EDT

EXPLANATION

I interned here during my senior year in college, and I do not have any contact information for my supervisor. I worked with Dan Zaccagnino, PE license 024649, and Jhonette Lazaro during my time there, but they were not my direct supervisor and I do not have their contact information.

Mining

TIMOTHY BRUEGGEMAN (13-420-07)

All work experience reviewed by two licensed professionals

DISCIPLINE: MINING

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
11/03/2025

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
13 years, 2 months

Total Engineering Experience
13 years, 2 months

Experience under licensed engineer
4 years, 3 months

Disciplinary Action
None reported

EDUCATION

Bachelors in Mining Engineering (EAC)
Colorado School of Mines
August 2008–May 2012

EXAMS

Fundamentals of Engineering (FE)
Colorado
October 2011

Principles and Practice of Engineering (PE)
Mining and Mineral Processing
Nevada
October 2025

LICENSES

Additional Licenses
None

WORK EXPERIENCE

Newmont Mining
Nevada (United States)
Senior Mine Engineer
June 2012—March 2019

Verified by
Jenessa Lynn Haarala
jlrminer@gmail.com

Experience Summary
Full-Time
Engineering: 6 years, 9 months
Post EAC degree: 6 years, 9 months
Experience under licensed engineer: None

TASKS

Role: Mine Engineer Portal Mines - Pete Bajo Underground June 2012 - May 2016
2012-2013 consisted of learning basic surveying, short range planning and design, and ventilation monitoring. 95% engineering, 5% survey.
2013 was my first experience with EOY Reserve and Resource design and reporting alongside an experienced engineer. I still had short range planning and design responsibilities and began learning mid-long range designing as well. 100% engineering
2014-2016 I was the long range planning and design and engineer. I also designed end of year reserve and resources. I trained new engineers on short range and ventilation duties. I estimated equipment and manpower needs during the budgeting season. 100% engineering

Role: Operations Shift Supervisor Portal Mines - Exodus Underground May 2016 - March 2017
This was a shift supervisor temporary role where I managed a team of 14 underground miners. I learned how to incorporate equipment and operational challenges into future mine planning as well as how to work more effectively with the operations team. 0% engineering, 100% operations

Role: Senior Mine Engineer Portal Mines - Exodus Underground March 2017 - March 2019
I was the main long range planning and design engineer. I supervised two junior engineers and two surveyors. I was involved in the budgeting process. I took on special project work as well. 100% engineering

REPRESENTATIVE PROJECTS

2013 - 2016: Fence ore zone expansion and design
Previous delays in capital development caused approximately 18 months of schedule delay for the Fence ore zone at the Pete Bajo mine. There were not enough options to compensate for a delay into the ore, so the Fence zone required up to quarterly redesigns based on new drilling information just to keep up with three month schedules. Due to the size of the open stoping levels, the short range design changes had a significant impact on what the long range designs looked like. I maintain both short and long range designs simultaneously. Ventilation became a significant constraint due to how spread out the orebody was going to be, so I designed a booster fan system to incorporate into the long range design.

2017-2018: NW Exodus zone design
There was a separate nearby ore zone discovered within the Exodus mine which had concept level designs in the long range plan. When my engineering role started at Exodus, I updated the concept with new parameters to create more realistic and efficient mineable designs. This included an ore pass, backfill transfer raise, and mining levels built specifically for automated loaders. After the redesign, we were able to move most of this zone from the resource to reserve category at the end of 2018. There was also approximately 10% reduction to capital development after we determined the automated equipment did not require as much as originally expected.

2018-2019: Automated loader implementation
CAT autonomous loaders were tested and implemented in 2018. I worked alongside contractors and the site implementation team to ensure the loaders would work as intended. Integrating survey data into the CAT system was critical for the automated equipment to function correctly in the fully autonomous sections. Trial and error and working was critical to have single operators run multiple machines. The CAT system was still very new, so I determined the 'correct' way to display map lines which was to find the balance between simple outlines and enough detail to avoid damaging equipment. This led to future improvements to the CAT system
Automated loader interaction with people was prohibited, so I built a blocking task for anything human related (drilling, blasting, bolting, etc.) into the long range schedule. This added a realistic layer into the long range schedule which was necessary accurate

TIMOTHY BRUEGGEMAN (13-420-07)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Nyrstar
Tennessee (United States)
Senior Mine Engineer
April 2019—June 2021

Verified by
Thomas John Needs
tjneeds@gmail.com

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

TASKS

Role: Senior Mine Engineer East Tennessee Underground Mines April 2019 - June 2021
I mentored and managed 3 short range engineers and 3 surveyors who were located at 3 different mine sites. I was responsible for reporting end of year reserve and resource for 3 separate mines and took on special projects as needed.

REPRESENTATIVE PROJECTS

2019: Planned room and pillar at Young Mine
The East Tennessee Mines have notoriously been random room and pillar mines since the beginning. In 2018-2019, there was a push to infill drill ore zones to gain better definition for long range planning. There was a test area with dense infill drilling where I created a planned room and pillar design to maximize ore extraction. The design was the easy part. Implementation with operations and geology was the critical component. Before moving to a different company in 2021, I completed a partial reconciliation of the planned room and pillar area to prove the case moving forward. Planned room and pillar has now become the more common method of mining at 2 of the 3 mines.

2020: Vulcan software implementation
With the change to planned room and pillar, 2D AutoCAD was not going to work as effectively. I implemented Vulcan 3D mining software into the workflow of the planning engineers. I provided most of the training to the engineers as well. This change was critical to ensure safe and effective mining designs were created. This was also used to create drill and blast plans for extraction of pillars in mined out areas.

2021: Immel Mine expansion
The Immel Mine had recently drilled an extensive new ore zone requiring significant development and infrastructure. I designed capital development and infrastructure to suit the planned ore production designs. This included a major ventilation circuit, new main water containment and discharge area capable of ~1M gallons discharge of water per day, and minimizing capital development while maximizing planned bulk ore extraction.

TIMOTHY BRUEGGEMAN (13-420-07)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Hecla Mining
Idaho (United States)
Senior Mine Engineer
July 2021—October 2025

Verified by
Wesley Johnson
wjohnson@hecla.com

Experience Summary
Full-Time
Engineering: 4 years, 3 months
Post EAC degree: 4 years, 3 months
Experience under licensed engineer: 4 years, 3 months

TASKS

Role: Senior Mine Engineer Greens Creek Underground July 2021 - February 2022
I managed a team of short range engineers and 2 surveyors. I was responsible for building the long range mine plan, including development and production. I was responsible for end of year reserve and resource compilation.

Role: Chief Mine Engineer Greens Creek Underground February 2022 - September 2024
I managed a team of planning, geotechnical, and project engineers as well as surveyors. I was responsible for ensuring short and long range mine planning needs were achieved. I was responsible for determining equipment needs based on the mine plan and building Capital AFEs to purchase the equipment. I frequently worked with other groups to ensure smooth operations at the mine.

Role: Senior Mine Engineer Corporate Office September 2024 - Present
I am involved in company strategic long range planning. There is frequent contact between sites to ensure expectations are set and followed. I am part of a team responsible for creating and setting company standards and processes and to ensure they can be applied to all of Hecla's mine sites. I am currently responsible for designing and compiling the end of year reserve and resource for the Keno Hill mine. I travel to mine sites to assist with projects, training, or implementation. I assist in reviewing long range plans, budget plans, and end of year reserve and resource for all active Hecla mines.

REPRESENTATIVE PROJECTS

2021-2022: Combining LRP and Reserve processes
Prior to arriving at Greens Creek, the long range planning process and the reserve and resource process were nearly independent from each other. Each of these processes tied up multiple engineers for months at a time, so I changed how we valued each process to reduce the effort to effectively one slightly larger task per year rather than 2 separate tasks. This improved the quality and consistency between long range planning and reserve and resource data.
Side note: Now that I am at the corporate office, I am currently involved in streamlining these processes even further.

2023-2025: Paste backfill additive
Due to a paste backfill pipeline that solidified, there was a need to find or adjust the process to reduce that risk in the future. I worked with Sika, a chemical supplier, to find an additive that would delay the setup time of the paste backfill and allow more room for operational errors. After lab testing was complete, field trials were done to ensure results were as expected. I worked with operators, Sika contractors, and the maintenance department to build a dosing system that would be effective, easy to run, and easy to maintain. After implementation and working out a few bugs, the system was successfully set up this year. This project costs approximately $250,000 per year. Indirect savings include: schedule flexibility due to quicker backfill pours, stronger backfill as a result of the additive, ~10,000 less gallons of water to discharge per day, and more room for operational errors when the paste plant is down for any reason.

2024-Current: Variable cutoff grade hill of value
Greens Creek is large in terms of a cut & fill mine and has significant optionality in where or what material to mine with 9 zones and 4,000ft of elevation difference from top to bottom. A single averaged cutoff grade has been utilized across the entire mine no matter the actual effort per zone. I am using methodology similar to the Whittle method in surface mining to determine the optimal cutoff grade by zone and production rates by zone to produce more value with a greater NPV. Once proven on paper, I will present this to the site team for implementation and feedback to show the value created.

Structural

SHIQI GAN (14-935-91)

All work experience reviewed by two licensed professionals

DISCIPLINE: STRUCTURAL

GENERAL

Applying To
Nevada

Application Type
Comity - PE

Application Date
11/06/2025

Citizenship
China

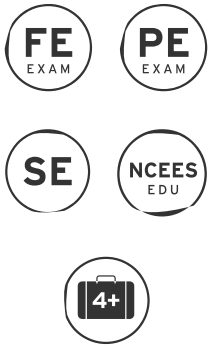
SUMMARY

Engineering Experience after EAC degree

Total Engineering Experience
10 years, 2 months

Experience under licensed engineer
10 years, 2 months

Disciplinary Action
None reported



EDUCATION

Meets NCEES Engineering Education Standard

Bachelors in Civil Engineering
Tongji University
September 2009–July 2013

Masters in Civil Engineering
Virginia Polytechnic Institute and State University
September 2013–May 2015

NOTE: First discipline specific structural license.

EXAMS

Fundamentals of Engineering (FE)
California
January 2015

Principles and Practice of Engineering (PE)
Civil
California
October 2017

Structural (SE)
Structural
Nevada
October 2025

LICENSES

Initial License
California
Issued: March 2018
Expires: June 2026

Additional Licenses
None

WORK EXPERIENCE

GILSANZ MURRAY STEFICEK LLP
New York (United States)
Engineer
August 2015—May 2018

Verified by
Jessica Marie Mandrick
Jessica.Mandrick@gmsllp.com

Experience Summary
Full-Time
Engineering: 2 years, 9 months
Experience under licensed engineer: 2 years, 9 months

TASKS

I conducted structural analysis and design for new buildings, ensuring they met all relevant safety and performance standards.

I performed structural analysis and design for renovation projects in existing buildings, integrating new and existing structural system and extend building lifespan.

I carried out controlled inspections of buildings under construction to ensure compliance with applicable building codes.

I resolved field construction problems by providing practical solutions and guidance.

I reviewed steel fabrication and erection plans before construction to ensure accuracy and safety.

REPRESENTATIVE PROJECTS

315 Hudson Street New York, NY
Retail Floor Lowering Aug. 2015- Dec. 2015
Worked as an engineer and inspector on this project, where the first-floor retail space at 315 Hudson Street was temporarily braced, the steel beam&concrete slab removed, and the slab reconstructed at a lower elevation. As an engineer, I oversaw and reviewed the temporary bracing designed by the construction engineers. As an inspector, I examined the steel construction, including bolted and welded connections, and assessed the overall stability of the bracing system.

315 Hudson Street, New York, NY
Lobby Transfer Jan. 2016-May 2016
I served as an engineer and inspector on this 10-story building column transfer project, which aimed to remove a lobby column to enlarge the entrance space. As an engineer, I verified the structural integrity and capacity of the adjacent cast iron columns, designed a steel transfer girder on the second floor. As an inspector, I performed steel inspections for the steel construction, and supervised the jacking up of the column to transfer the existing load to the newly installed transfer plate girders.

Toyoko Inn, New York, NY
50 story concrete shear wall building design June 2017-Feb. 2018
I served as an engineer on the design of a shear wall structure for a slender 50-story building. The shear walls were strategically placed around the elevator shaft and staircases. I performed shear wall reinforcement design, flat slab reinforcement design and also reinforcement column design. To address the challenge of limiting top deflection to under 1/500 due to the building's slender nature, I recommended incorporating belt walls at mechanical levels to engage the exterior concrete columns, providing additional strength and stiffness. The building design was paused at 90% completion due to financial and business development considerations from the client, but it remains an important part of my early professional development.

WORK EXPERIENCE

CHI Consulting Engineers
New Jersey (United States)
Engineer
May 2018—March 2020

Verified by
Qi Ye
qye@chiengineers.com

Experience Summary
Full-Time
Engineering: 1 year, 10 months
Experience under licensed engineer: 1 year, 10 months

TASKS

I conducted structural analysis and design for new bridge structures, ensuring they met all safety and performance standards.

I performed detailed structural analysis and design for bridge rehabilitation projects to extend their lifespan and enhance their functionality.

I also designed temporary structural supports for bridge construction, ensuring stability and safety throughout the construction process.

REPRESENTATIVE PROJECTS

I395 Prestressed concrete segemental bridge design, Miami, FL, May 2018-March 2020
The landmark bridge in Miami features six concrete arches convergingging at one single center pier. I designed and checked prestress tendon and concrete capacity during different construction stages, as well as designed the center pier's reinforced concrete footing using the strut-and-tie modeling method.

Delaware Memorial Bridge Temporary Support, NJ/DE, July 2018-Oct. 2018
I designed a bracket and hanger system to provide temporary support for the main truss at the tower locations during the replacement of the bearing link of the suspension bridge. I ensured the system could be installed on the face of the towers and connected to the top chord of the truss before removing the existing bearing link and installing the new one. My design incorporated a jack/slotted hole system to lift the truss end, unloading the existing bearing link before its removal.

Walt Whitman Bridge Tower Finger Joint Rehabilitation, NJ/PA, Jan.2019-March 2019
Loud banging and squeaking noise has been observed at the finger joints at the towers of the Walt Whitman Bridge. I inspected and demonstrated that gaps had formed between the finger plates and the center bearing beams below. I designed modifications of the existing finger joint details to address loud banging and squeaking noises. I proposed monitoring being performed before and after the modification of the finger joint to prove that the noise and vibration had been reduced.

SHIQI GAN (14-935-91)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Urbantech Consulting Engrg Pc
New York (United States)
Senior Engineer
March 2020—October 2025

Verified by
Wei Wang
wwang@urbantechusa.com

Experience Summary
Full-Time
Engineering: 5 years, 7 months
Experience under licensed engineer: 5 years, 7 months

TASKS

I conducted structural analysis and design for new bridge structures, ensuring they met all safety and performance standards.

I performed detailed structural analysis and design for bridge rehabilitation projects to extend their lifespan and enhance their functionality.

I also designed temporary structural supports for bridge construction, ensuring stability and safety throughout the construction process.

REPRESENTATIVE PROJECTS

Francis Scott Key Bridge Replacement, Maryland, June 2025- Oct. 2025
I conducted a peer review of the proposed demolition scheme for the existing bridge. Using CSI Bridge, I developed a structural model representing the demolition stages and evaluated the bridge's stability under dead load, wind load, and construction live load to ensure structural safety throughout the demolition process.

Throgs Neck Bridge TN9H Rehabilitation, New York, NY June 2024 – June 2025
I participated in the investigation of Alkali-Silica Reaction (ASR) and bearing uplift issues at Ramps A and B. I developed the coring scheme and took part in coring operations to obtain samples for petrographic analysis, chloride content testing, and compressive strength evaluation, confirming ASR-related deterioration. I also created and analyzed a CSI Bridge model to evaluate Ramp B Pier 11 bearing uplifting behavior on the severely skewed span under dead, traffic, wind, and temperature loads.

JFK temporary bridge design, New York, NY Jan. 2024-June 2024
I designed a temporary bridge to detour traffic while the existing bridge's girder and deck were being replaced. I constructed an analysis model for the temporary bridge, incorporating loads such as dead load, traffic load, wind load, and temperature load. I designed the superstructure and substructure members to accommodate loads from various load combinations. I performed a nonlinear analysis to study the behavior of tension-only bracing cables between the towers, responsible for bearing lateral loads. Additionally, I constructed an analysis model for the existing bridge to identify the optimized cutting location of the beams, ensuring the 2-span continuous bridge deck remained structurally adequate after cutting, to carry the temporary traffic load on the remaining part of the existing bridge.

Verrazano Narrows bridge approach span VN84 Seismic Analysis, New York, NY Jan.2023-May.2023
I performed a seismic time history analysis on a section of the Verrazano-Narrows Bridge to verify the capacity of the existing substructure. I analyzed the bridge's response to seismic events to ensure its stability and safety. I evaluated the widened bridge's ability to accommodate additional traffic lanes while maintaining structural integrity.

Throgs Neck Bridge TN53 Rehabilitation, New York, NY March 2021-Dec. 2021
I designed a concrete jacketing scheme for the piers of the Throgs Neck Bridge to address concrete spalling and exposed rebar issue. The design replaced the deteriorated concrete and wrapped the existing columns to restore structural integrity. I implemented measures to protect the reinforcing bars from further deterioration, ensuring the long-term stability of the bridge.

CREDENTIALS EVALUATION - ENGINEERING

Gan, Shiqi
(14-935-91)

DEGREES EVALUATED

Institution/Degree	Country	Language	Courses
Tongji University / Bachelors in Civil Engineering 09/01/2009 — 07/01/2013	China	Chinese	61
Virginia Polytechnic Institute and State University / Masters in Civil Engineering 09/01/2013 — 05/01/2015	United States	English	None

COMPARABILITY SUMMARY

Outcome: Equivalent

Area	Hours	Deficiency
Math/Science	32 / 32	None
Engineering	50 / 48	None
General Education	22 / 12	None
Elective/Other	24 / N/A	None

MATH/SCIENCE

Specified Criteria Hours: 32

Course	Institution/Degree	U.S. Credits
Calculus I	Tongji University / Bachelors in Civil Engineering	3.7
Calculus II	Tongji University / Bachelors in Civil Engineering	3.7
Chemistry	Tongji University / Bachelors in Civil Engineering	2.6
Finite Element Method	Tongji University / Bachelors in Civil Engineering	1.5
Fluid Mechanics	Tongji University / Bachelors in Civil Engineering	1.5
Geology	Tongji University / Bachelors in Civil Engineering	2.6
Linear Algebra	Tongji University / Bachelors in Civil Engineering	1.5
Mechanics	Tongji University / Bachelors in Civil Engineering	5.9
Physics I	Tongji University / Bachelors in Civil Engineering	3
Physics II	Tongji University / Bachelors in Civil Engineering	2.6
Probability	Tongji University / Bachelors in Civil Engineering	1.5
Properties of Materials	Tongji University / Bachelors in Civil Engineering	1.5
	Total semester credit hours earned:	**31.60**

Specified Criteria Hours: 48

Course	Institution/Degree	U.S. Credits
Acoustics	Tongji University / Bachelors in Civil Engineering	1.1
Bridge Construction	Tongji University / Bachelors in Civil Engineering	1.5
Bridge Design	Tongji University / Bachelors in Civil Engineering	1.5
Bridge Dynamics	Tongji University / Bachelors in Civil Engineering	1.5
Bridge Engineering	Tongji University / Bachelors in Civil Engineering	7.4
Bridge Structures	Tongji University / Bachelors in Civil Engineering	1.5
Bridge Testing & Reinforcement	Tongji University / Bachelors in Civil Engineering	1.5
Building Construction	Tongji University / Bachelors in Civil Engineering	1.5
Concrete Structures	Tongji University / Bachelors in Civil Engineering	3
Design of Footbridges	Tongji University / Bachelors in Civil Engineering	0.7
Foundation Design	Tongji University / Bachelors in Civil Engineering	2.2
Graduation Project	Tongji University / Bachelors in Civil Engineering	6
Large Span Structures	Tongji University / Bachelors in Civil Engineering	0.7
Load & Structural Design Method	Tongji University / Bachelors in Civil Engineering	0.7
Long Span Concrete Bridges	Tongji University / Bachelors in Civil Engineering	1.1
Prestressed Concrete Structures	Tongji University / Bachelors in Civil Engineering	2.2
Road Engineering	Tongji University / Bachelors in Civil Engineering	1.5
Soil Mechanics	Tongji University / Bachelors in Civil Engineering	1.5
Steel & Concrete Composite Bridges	Tongji University / Bachelors in Civil Engineering	2.6
Steel Structures	Tongji University / Bachelors in Civil Engineering	1.8
Structural Mechanics	Tongji University / Bachelors in Civil Engineering	4.4
Structural Stability	Tongji University / Bachelors in Civil Engineering	1.5
Theory of Elasticity	Tongji University / Bachelors in Civil Engineering	1.5
Underground Engineering	Tongji University / Bachelors in Civil Engineering	1.5
	Total semester credit hours earned:	**50.40**

GENERAL EDUCATION

Specified Criteria Hours: 12

Course	Institution/Degree	U.S. Credits
Chinese History	Tongji University / Bachelors in Civil Engineering	1.5
Chinese Literature	Tongji University / Bachelors in Civil Engineering	1.1
Current Affairs	Tongji University / Bachelors in Civil Engineering	1.5
English	Tongji University / Bachelors in Civil Engineering	6
Government & Comparative Politics	Tongji University / Bachelors in Civil Engineering	1.1
Law & Morals	Tongji University / Bachelors in Civil Engineering	2.2
Mao Zedong's Thoughts, Deng Xiaoping Theory & Conspectus of Three	Tongji University / Bachelors in Civil Engineering	4.4
Marxism	Tongji University / Bachelors in Civil Engineering	2.2
Military Science	Tongji University / Bachelors in Civil Engineering	0.7
Western Philosophy	Tongji University / Bachelors in Civil Engineering	1.1
	Total semester credit hours earned:	**21.80**

ELECTIVE/OTHER

Specified Criteria Hours: N/A

Course	Institution/Degree	U.S. Credits
CAD	Tongji University / Bachelors in Civil Engineering	1.5
Computing	Tongji University / Bachelors in Civil Engineering	1.8
Construction Management	Tongji University / Bachelors in Civil Engineering	1.8
Database Applications	Tongji University / Bachelors in Civil Engineering	1.8
Descriptive Geometry & Drawing	Tongji University / Bachelors in Civil Engineering	3
Drawing	Tongji University / Bachelors in Civil Engineering	1.1
Image Processing	Tongji University / Bachelors in Civil Engineering	1.1
Information Retrieval	Tongji University / Bachelors in Civil Engineering	1.1
Information Theory	Tongji University / Bachelors in Civil Engineering	1.5
Introduction to Civil Engineering	Tongji University / Bachelors in Civil Engineering	0.7
Metals Technology	Tongji University / Bachelors in Civil Engineering	0.7
Software	Tongji University / Bachelors in Civil Engineering	1.5
Surveying	Tongji University / Bachelors in Civil Engineering	3.7
Tourism	Tongji University / Bachelors in Civil Engineering	1.1
Visual Basic Design	Tongji University / Bachelors in Civil Engineering	1.8
	Total semester credit hours earned:	**24.20**

Total Semester Credit Hours Earned: 128

PROCESS DESCRIPTION

All education is compared to the NCEES Engineering Education Standard

The evaluation of your academic studies has been prepared to provide engineering and surveying licensing boards with the required assessment of foreign qualifications to facilitate them in determining if you qualify for licensure examination. This is an advisory report prepared based on records received and verified by the institutions issuing the degrees or qualifications. Eligibility to take the examination is determined by the licensing boards.

This report does not include the assessment of written and oral communication skills, computer skills, the quality of laboratory or field work, and the scope of design experience, which require an onsite review. Academic records (such as transcripts and catalogs) do not document qualitative factors and practical constraints to desirable outcomes.

NCEES houses a library of reference materials from around the world. These references are used for the completion of evaluations in conjunction with the NCEES Engineering Education Standard.

5. Business and Industry's Proposed Regulations Updates to 232.XXX

6. Public Comment

7. Adjournment