



VERNADERO
GROUP
INCORPORATED

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Vernadero Group Incorporated
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Job Description of the Consulting Mechanical Engineer

Location: Phoenix, Arizona or work-from-home in Southern Arizona
Employment Type: Part-time employment or contract employment available
Compensation: \$75-\$150 per hour depending on experience

General Description

Reporting to the Director of Construction Services, as a Consulting Mechanical Engineer for Vernadero Group you will be responsible for helping develop competitive cost proposals for design/build military public works projects, self-perform the production of construction documents for small industrial HVAC and other mechanical projects, and coordinate the work of other engineers, mechanical designers and CADD technicians on larger projects and with other disciplines.

You will also have construction support responsibilities requiring design direction, review of equipment submittals, responding to RFI's, conducting site visits, participating in owner/architect/contractor meetings, and writing site visit/meeting reports. You'll provide value-oriented design suggestions, review drawings and documents to assure compliance with company design and production standards.

Specific Responsibilities

- Perform field surveys and investigations to prepare engineering drawings
- Review scopes of work and/or project plans to determine design feasibilities and constraints
- Determine construction cost and material estimates based on preliminary mechanical designs for proposals
- Develop cost-effective design layouts based on construction specifications and requirements for HVAC systems, building automation systems, plumbing systems and fire suppression systems on military public works facilities
- Establish design criteria and prepare mechanical engineering documents with no supervision
- Self-perform the production of construction documents on small projects and coordinate the work of other engineers, mechanical designers and CADD technicians on larger projects.
- Resolve engineering discrepancies or job-site challenges by collecting and analyzing information; conferring with other engineers and project superintendents

Qualifications

- Bachelor's or Master's degree in Mechanical Engineering
- Arizona-licensed professional engineer
- 10 years of experience in mechanical system design of commercial or institutional buildings with an architectural/engineering or engineering consulting firm
- Experience in the design of industrial HVAC systems, DDC controls and controls design, and operation within federal whole building design guidelines
- Ability to pass a background check and obtain government contractor security clearance for contractor access at Fort Huachuca, Arizona.
- U.S. citizenship and ability to travel regionally

Knowledge, Skills and Abilities

- Ability to develop conceptual design and determine associated construction costs for a wide range of industrial HVAC and other mechanical projects
- Ability to calculate, evaluate, select, and layout mechanical systems as well as writing /editing mechanical and control system specifications associated with military public works projects, and placing your seal on the mechanical sheets you design.
- Understanding of federal facilities design and construction guidelines and regulations
- Proficiency with AutoCAD MEP and an ability to self-perform the production of construction documents on small projects and supervise the work of subcontractor engineers, mechanical designers and CADD technicians, and coordinate design of larger projects with other disciplines.
- Ability to interpret and apply results from energy and environmental performance analysis: Conceptual Energy Modeling; ASHRAE whole-building Energy Modeling; Renewable Energy Systems and feasibility analysis
- Strong knowledge of Microsoft Office, MS Project
- Effective listening, verbal and written communication skill
- Must be detail oriented and very well organized
- Ability to work independently on small projects or on a team with senior engineers on larger projects.
- Ability to analyze design issues and recommend corrective actions.
- Ability to perform civil design analysis and calculations according to project requirements.

Work Environmental and Physical Demands

The characteristics described below are representative of those encountered while performing the essential functions of this position. Reasonable accommodations will be made to enable individuals with disabilities to perform the essential functions.

- While performing duties of this job, would occasionally be required to stand, walk, sit, reach with hands and arms, climb or balance, stoop or kneel, talk and hear, and use fingers and hands to feel objects, tools or controls.
- Must occasionally lift and/or move up to 25 pounds.
- Specific vision abilities required include close vision, distance vision, depth perceptions, color vision, and the ability to adjust focus.
- Job will generally be performed in an office environment, but may require travel to and visit a Client's office, production facility or industrial/construction job site. Conditions will vary at each location.
- May be exposed to extremes of heat and cold as well as certain unsafe environments; occasionally works near moving mechanical parts and electrical equipment; possible exposure to fumes or airborne particles; possible exposure to internal liquids.
- This is a safety sensitive position where a momentary lapse of attention can result in serious injury or death.
- The noise level in the work environment is usually moderate and occasionally very loud.