



ASSURED ENGINEERING CONCEPTS, LLC

JOB DESCRIPTION

TITLE: Computer-Aided Drafter/Designer AutoCAD	SALARY GRADE: TBD
REPORTS TO: Patrick J. Ramirez patrickr@assuredeng.com	ANNUALIZED MINIMUM SALARY: TBD
HOME BASE: Phoenix, AZ	ANNUALIZED MAXIMUM SALARY: TBD

PRIMARY FUNCTIONS:

Perform civil and mechanical engineering Computer-Aided Drafting (CAD) duties to support planning, designing, field operations and project management of private sector and public improvement projects focused on the energy and infrastructure markets. Primary focus will include generating digital designs of dry utility projects to prevent conflicts and develop final construction designs for natural gas and electrical distribution projects.

SPECIALIZATIONS

- Computers and Electronics -- Knowledge computer hardware and software, including CAD applications such as AutoCAD and MicroStation.
- Mathematics – Basic knowledge of arithmetic, algebra and geometry.
- Design -- Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints and drawings.
- English Language -- Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
- Geography -- Knowledge of principles and methods for describing the features of land, including their physical characteristics, locations and interrelationships with physical structures.

MINIMUM QUALIFICATIONS

- Written Comprehension -- The ability to read and understand information and ideas presented in writing.
- Visualization -- The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.
- Problem Sensitivity -- The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
- Deductive Reasoning -- The ability to apply general rules to specific problems to produce answers that make sense.
- Oral Comprehension -- The ability to listen to and understand information and ideas presented through spoken words and sentences.
- Oral Expression -- The ability to communicate information and ideas in speaking so others will understand.

- Information Ordering -- The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).
- Mathematical Reasoning -- The ability to choose the right mathematical methods or formulas to solve a problem.
- Selective Attention -- The ability to concentrate on a task over a period of time without being distracted.
- Written Expression -- The ability to communicate information and ideas in writing so others will understand.
- Fluency of Ideas -- The ability to come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity).
- Category Flexibility -- The ability to generate or use different sets of rules for combining or grouping things in different ways.
- Number Facility -- The ability to add, subtract, multiply, or divide quickly and correctly.

- Visual Color Discrimination -- The ability to match or detect differences between colors, including shades of color and brightness.

JOB RESPONSIBILITIES AND COMPETENCIES

- Produce drawings using computer assisted CAD drafting systems or drafting machines or by hand using compasses, dividers, protractors, triangles and other drafting devices.
- Draft plans and detailed drawings for civil infrastructure, electrical and natural gas distribution designs working from sketches or notes.
- Draw maps, diagrams, and profiles, using cross-sections and surveys, to represent elevations, topographical contours, subsurface formations and structures.
- Correlate, interpret, and modify data obtained from topographical surveys.
- Finish and duplicate drawings and documentation packages, according to required mediums and specifications for reproduction, using blueprinting, photography, or other duplicating methods.
- Review rough sketches, drawings, specifications, and other engineering data received from civil engineers to ensure that they conform to design concepts.
- Supervise and train other technologists, technicians and drafters.
- Supervise or conduct field surveys, inspections or technical investigations to obtain data required to revise construction drawings.
- Determine the order of work and method of presentation, such as orthographic or isometric drawing.
- Explain drawings to production or construction teams and provide adjustments as necessary.
- Locate and identify symbols located on topographical maps.
- Determine quality, cost, strength and quantity of required materials, and enter figures on materials lists.

JOB DEMANDS

- Getting Information -- Observing, receiving, and otherwise obtaining land base and technical information from all relevant sources.
- Drafting, Laying Out, and Specifying Technical Devices, Parts, and Equipment -- Providing documentation, detailed instructions, drawings, or specifications to tell others about how devices, parts, equipment, or structures are to be used.

- Interacting With Computers -- Using computers and computer systems (including hardware and software) to program, write software, set up functions, enter data, or process information.
- Making Decisions and Solving Problems -- Analyzing information and evaluating results to choose the best solution and solve problems.
- Evaluating Information to Determine Compliance with Standards -- Using relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.
- Updating and Using Relevant Knowledge -- Keeping up-to-date technically and applying new knowledge to your job.
- Communicating with Supervisors, Peers, or Subordinates -- Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- Organizing, Planning, and Prioritizing Work -- Developing specific goals and plans to prioritize, organize, and accomplish your work.
- Identifying Objects, Actions, and Events -- Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.
- Processing Information -- Compiling, coding, categorizing, calculating, tabulating, auditing, or verifying information or data.
- Thinking Creatively -- Developing, designing, or creating new applications, ideas, relationships, systems, or products, including artistic contributions.
- Establishing and Maintaining Interpersonal Relationships -- Developing constructive and cooperative working relationships with others, and maintaining them over time.
- Communicating with Persons Outside Organization -- Communicating with people outside the organization, representing the organization to customers, the public, government, and other external sources. This information can be exchanged in person, in writing, or by telephone or e-mail.
- Documenting/Recording Information -- Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.
- Interpreting the Meaning of Information for Others -- Translating or explaining what information means and how it can be used.
- Analyzing Data or Information -- Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts.
- Scheduling Work and Activities -- Scheduling events, programs, and activities, as well as the work of others.
- Monitor Processes, Materials, or Surroundings -- Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Developing Objectives and Strategies -- Establishing long-range objectives and specifying the strategies and actions to achieve them.

CONTINUOUS EDUCATION

Employee will be expected to continue their professional education and strive for development of a career in engineering and science.

TYPICAL WORKING CONDITIONS

Work is performed in a combination of office environment and field conditions. Special note that field conditions can include cold and hot conditions for extended periods as work is completed at project sites.

ACCOUNTABILITY

Reports to and is supervised directly by the members of the engineering staff. Employee is also accountable for understanding and complying with corporate policies and procedures.