

COMPUTER AIDED DRAFTING & DESIGN (CADD) DRAFTING ASSISTANT

DEFINITION

Under the general supervision of assigned manager/supervisor, performs Computer Aided Drafting and Design (CADD) work and supports the functions of the District Facilities Engineering and Planning Department.

TYPICAL DUTIES

Develops diagrams for construction, fabrication, and installation of equipment, structures, components, and systems, using field documents and specifications; draws and prints charts, graphs, illustrations, and other artwork, using computer; and assists the engineering and planning staff in preparing schedules and status boards and charts related to construction and maintenance projects. Confers with clients regarding layout design; determines size and arrangement of illustrative material and copy, and selects style and size of type; draws rough and detailed plans, to scale for foundations, buildings, and structures, according to specifications; prepares colored drawings of landscape and interior designs and studies illustrations and photographs to plan presentation for client or supervisor. Arranges layout and plans interior room arrangements and draws charts, forms, and records; lays out schematics and wiring diagrams used to erect, install, and repair established cable and electrical systems, using computer equipment; draws sample of finished layout and presents sample to director for approval. Reviews final layout and suggests improvements as needed; prepares notes and instructions for workers who assemble and prepare final layouts for printing; and marks up, pastes, and assembles final layouts to prepare layouts for printer. Assists the engineering and planning staff in preparing drawings, specifications, bid documents, project proposals and construction cost estimates; and assists in the development of required State Capital Outlay documents and Facilities Space Inventory reports. Maintains and revises District's archives of as-built construction documents, both electronic and paper; and maintains Facilities Space Inventory databases and CADD drawings and coordinates with assigned college representatives with regard to room/space utilization. Performs related duties as required.

QUALIFICATIONS

EXPERIENCE AND EDUCATION

A Bachelor's degree in architectural drafting or a closely related field from an accredited college or university plus one year of work experience in architectural or construction drafting; or an associate's degree in architectural drafting or related field plus two years of increasingly responsible work experience in architectural or construction drafting; or, 30 semester units of college credits including technical classes in drafting and CADD software plus three years of increasingly responsible work experience in architecture or construction drafting. (One year of experience is equal to 12 months of experience at 40 hours per week. Applicable part-time experience will be converted to the full-time equivalent for purposes of meeting the experience requirement.)

SPECIAL REQUIREMENTS

Possess and maintain a valid California Driver's License in compliance with Los Rios Board Regulation R-8343; employment is contingent upon meeting the requirements of Los Rios Board Regulation R-8343. This position may require operating a District or personal vehicle in order to complete assigned work within the scope of the position duties. Must be willing to monitor projects outside of regular working hours. Any offer of employment is contingent upon the successful completion of a medical evaluation.

KNOWLEDGE OF

Knowledge of most current versions of computer aided design (AutoCad), drafting, space management, word processing, spreadsheet, project management, and database software; design techniques, principles, tools and instruments involved in the production and use of precision technical plans, blueprints, drawings, and models; and the methods and techniques for blue printing and reproduction of construction documents. Knowledge of general architectural, engineering and construction terminology, methods and processes. Knowledge of numbers, their operations, and interrelationships including arithmetic, algebra, geometry, and their applications to solve problems. Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.

SKILLS IN

Skill in working with new material or information to grasp its implications; and analyzing needs and requirements to create a design. Skill in generating a number of different approaches to problems; developing approaches for implementing an idea; using logic and analysis to identify the strengths and weaknesses of different approaches; and weighing the relative costs and benefits of a potential action. Skill in knowing how to find information; identifying essential information; and reorganizing information to find a better approach to problems or tasks.

ABILITY TO (ESSENTIAL FUNCTIONS)

The ability to perform the basic functions of the position; sustain regular work attendance; work cooperatively and effectively with the public, a variety of shop, engineering and trade, and professional staff; exercise initiative and mature judgment; work as a member of a team; and meet schedules and time lines. The ability to analyze and interpret as-built construction documents and blueprints; assist in the production of clear and complete construction drawings, charts, and schedules; and modify, query and run reports from facilities inventory software and databases. The ability to visualize how something will look after it is moved around or when its parts are moved or rearranged; see details of objects at a close range (within a few feet); and match or detect differences between colors, including shades of color and brightness. The ability to learn and interpret laws, rules, regulations and policies and apply them to specific projects; apply general rules to specific problems to come up with logical answers; and correctly follow a given rule or set of rules in order to arrange things or actions in a certain order. The ability to add, subtract, multiply, or divide quickly and correctly. The ability to listen to and understand information and ideas presented verbally; read and understand information and ideas presented in writing; and communicate information and ideas orally and in writing so others will understand.

Physical and Environmental Factors: Must be able to move about freely and safely at construction sites; climb ladders; and maneuver through tight and cramped spaces (i.e. trenches, crawl spaces, electrical and mechanical vaults, etc.).

TYPICAL EQUIPMENT USED (May include, but not limited to):

Current office technologies, computers, scanners, printers, copiers, faxes, calculator, telephones, print reproduction equipment, large plotters, and hand-held drawing instruments.