



Engineering Assistant

Class Code:
500

ALAMEDA COUNTY WATER DISTRICT
Revision Date: July 2012

DEFINITION

Under supervision, assists in the conduct of engineering design and construction work for the District; acts as engineering project manager for smaller scale and less complex engineering projects, and performs related work as required.

DISTINGUISHING CHARACTERISTICS

Engineering Assistant: Under general supervision within a framework of established policies and procedures, Incumbents perform sub-professional engineering work within any division of the District's Engineering Department. Assignments are generally reviewed upon completion; difficult and non-routine assignments may be reviewed while work is progressing. Initiative and good judgment are required.

This classification is distinguished from classifications in the Engineering Technician series in that the latter are not assigned engineering project management responsibilities, but instead provide support to professional engineers who function in this capacity. This classification is distinguished from classifications in the professional engineering series in that the latter performs professional engineering work requiring more formalized academic training and/or professional registration and incumbents are responsible for larger and more complex engineering design and construction projects.

TYPICAL DUTIES

TYPICAL EXAMPLES OF DUTIES MAY INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

- Prepares project drawings and contract specifications for use by contractors in submitting bids for construction projects.
- Conducts pre-bid, site review and preconstruction meetings; does field surveying work and estimates costs of projects being let out to bid.
- Assists in the review of bid proposals and makes recommendation on the award of bids.
- Performs construction project management work including review and approval of contractor material submittals, bonds and insurance, and payment invoices.
- Reviews construction inspector notes, makes field visits during construction phase, and interfaces with contractor around project schedule, budget, change orders desired, and interpretation of project documents, codes or construction standards.
- Coordinates construction activities with District Operations Department and other public agencies.
- Monitors project schedule and budget and prepares periodic reports to superiors about same.

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- Prepares routine correspondence and reports detailing status of engineering design or construction projects planned or underway.
- Utilizes a personal computer and/or AutoCAD applications to perform sub-professional engineering design work; employs word processing and spreadsheet software to assist with construction management tasks.
- Operates an automobile to travel to and from field sites in connection with the duties of the classification.
- May act as chief of party or instrument person on survey party.
- Performs other related work as required.

REQUIREMENTS

Any combination of education and experience that would likely provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the knowledge, skills, and abilities would be the equivalent of:

Education and Experience: Equivalent to completion of two years of college level studies in pre-engineering technology courses that included drafting and mathematics through trigonometry and five years of work experience as an engineering technician, at least two of which were at a senior/lead level or which entailed the use of AutoCAD applications.

Knowledge, Skills and Abilities:

Knowledge of: the principles and practices of civil engineering design and construction management; the characteristics and uses of commonly used construction materials; field surveying principles and construction staking; mathematics through trigonometry and elementary statistical functions; and construction inspection practices and techniques.

Skill and Ability to: interpret and apply engineering principles and techniques, District specifications, ordinances and policies; perform mathematical and engineering calculations with speed and accuracy; operate personal computers, drafting tools and equipment, and survey instruments; perform sub-professional engineering design work, including the use of AutoCAD; interpret complex drawings and construction contract requirements; prepare complete and accurate construction cost estimates; organize work, set priorities, meet critical deadlines and work independently; communicate effectively, both orally and in writing; prepare clear and concise written reports; work cooperatively with others contacted in the course of the work; and to perform the essential functions of the job without causing harm to self or others

Additional Requirements:

- Must possess a valid California driver's license and have a satisfactory driving record

Working Conditions/Physical Requirements:

The essential functions of the job require, on a continuous basis, the ability to sit for extended periods of time; finger dexterity, simple grasping and fine manipulation to operate a computer and other equipment; and the ability to speak and hear in person and on the phone; and to intermittently twist to reach equipment surrounding the desk. While performing field work, the essential functions of the job require the ability to work outdoors on a year-round basis under a variety of climatic and geographic conditions in a field environment with exposure to loud noise,

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chemicals, fumes, and other environmental substances; to traverse uneven terrain; to stand for long periods of time; to bend, squat, and/or climb into large diameter pipelines, confined spaces, ladders, stairs and other access points on construction sites; and to work long or unusual hours as situations demand.

Revised: 07/12

Approved: BRW
Human Resources/Risk Manager