



Associate Engineer

DEFINITION

Under direction, plans, schedules, supervises and performs difficult professional and technical engineering work in the areas of planning, design, construction, and operations of the water system; conducts studies, analyzes data and prepares reports on a wide variety of District operations; and performs related work as required.

DISTINGUISHING CHARACTERISTICS

This is the fully-qualified working level in the engineering series. Individuals in this class are usually project managers or have major responsibilities for system planning, design and construction, system operation and protection depending on assignment. Positions in this class are assigned complex engineering projects involving responsibility for the timely completion and sound financial management of such projects, often involving supervision of other engineering personnel and coordination with personnel and resources from other divisions throughout the District and outside entities.

EXAMPLES OF DUTIES

Typical duties may include but are not limited to the following:

- Directs or performs the preparation of planning reports, project schedules, designs, construction plans, cost estimates, specifications and bidding documents for a variety of District projects;
- conducts research and prepares reports on long-range projects to assure successful operation of, water supply, transmission and distribution facilities;
- may analyze the water system to determine what projects and operational procedures are necessary to improve water distribution and water quality;
- manages construction contracts including directing contractors;
- monitors progress on construction projects;
- directs, or may perform, inspections of construction projects;
- may prepare or assist in the preparation of grant applications for State and Federal funding;
- prepares Requests for Proposals for consultants and administers consultants' work on projects;
- may provide technical information to engineering officials of other governmental jurisdictions, District staff and the public, and coordinates with same;
- keeps abreast of new technological developments through contact with vendors and suppliers;
- orders supplies, materials and equipment when necessary;
- prepares engineering reports and processes progress payments for construction work;
- may administer and manage corrosion protection programs;
- coordinates project development with other participating disciplines;
- calculates and monitors project costs;
- may train and evaluate the work of subordinates; and
- ensures that safe working conditions are maintained.

QUALIFICATIONS FOR EMPLOYMENT

Knowledge of:

- Principles, practices, regulations and methods of engineering work in the areas of assignment as applied to the planning, design and construction, operation and water quality of water systems projects, or field operations involved in the construction and maintenance of water system facilities;
- design principles, strengths of materials and stress analysis required in designing water supply, storage, transmission and distribution systems;
- California Department of Public Health and American Water Works Association standards
- principles of organization, supervision and training;
- proper spelling, grammar, punctuation and writing practices;
- statistics and mathematical models;
- use of computer software commonly used in a water engineering environment;
- project scheduling and financial management; and
- principles of fire and building code requirements.

Ability to:

- Prepare accurate schedules, budgets, plans, specifications, cost estimates and engineering reports;
- make accurate engineering computations and drawings;
- plan and supervise, either in person or through subordinates, the design and construction of engineering projects in their professional field;
- conduct technical engineering research work, make detailed analyses and write comprehensive reports;
- prepare clear and concise records, reports, and correspondence;
- establish and maintain effective working relationships with those contacted in the course of work;
- drive a vehicle depending upon job assignment; and
- travel to off-site work locations and meetings depending on job assignment.

Training and Experience: Any combination equivalent to experience and education that could likely provide the required knowledge and abilities would be qualifying. A typical way to obtain the knowledge and abilities would be:

- A Bachelor's degree in an engineering curriculum which is accredited by the Engineers' Council for Professional Development;
- three years of increasingly responsible engineering experience in the areas of assignment relating to water system facilities planning, design and construction, or water quality, including one year of supervisory and/or project management experience;

OTHER REQUIREMENTS

- Per California Government Code, Title 1, Division 4, Chapter 8, Section 3100 "all public employees are hereby declared to be disaster service workers subject to such disaster service activities as may be assigned to them by their superiors or by law."

LICENSES AND/OR CERTIFICATIONS

- Possession of an appropriate California driver's license issued by the State Department of Motor Vehicles and satisfactory driving record.;
- Possession of a valid Certificate of Registration as a Professional Civil Engineer in the State of California.

PHYSICAL DEMANDS AND WORKING CONDITIONS

During the course of performing job duties the employee will need the mobility to work in a standard office setting, operate equipment, which may include office and/or field equipment, or specialized instruments or tools requiring repetitive arm/hand movement and/or the coordinated movement of more than one limb simultaneously; enter and retrieve data from personal computers and terminals via keyboards which is often performed while sitting for extended periods of time. The employee frequently stands, walks, bends at neck and waists, twists at neck and waist, uses simple and power grasping with both hands, uses fine manipulation of both hands and fingers, and may require use of the arms above the shoulder, climb or balance; stoop, kneel or crouch. While working in the field the employee may walk on uneven or un-level ground surfaces such as hills, slopes, ditches or trenches, on or in tanks, and may work at heights up to twenty-five feet climbing ladders or stairs. The employee is occasionally required to lift and carry short distances objects such as reams of copier paper, office supplies, files, books, printed materials and other packages or equipment weighing up to 25 pounds. This position requires that the employee demonstrate adequate hearing and speech to converse in person and over the telephone, and vision to read printed materials and use a computer screen. In order to drive, individuals must be physically capable of operating the vehicles and equipment safely.

The noise level in the indoor work environment is quiet to moderate noise. The employee is exposed to outdoor temperature, humidity, wetness, dust and moderate to loud construction noise. The position may require the ability to work overtime and weekends as needed.

To be successful in this job, an individual must be able to satisfactorily perform each of the listed duties. These duties are representative of the knowledge, skill and/or ability required for the position. Reasonable accommodations may be made to enable individuals with disabilities to perform the duties and functions of the position. Requests for reasonable accommodation should be directed to the Human Resources Manager.

Established: October 1995
Revised: May 2009, November 2021
Approved by: Human Resources Manager