



**MARCH 2011**  
**FLSA: NON-EXEMPT**

## **ENGINEERING ASSISTANT**

### **DEFINITION**

Under general direction, performs a variety of engineering office and field duties in support of District engineering projects; participates in the planning, design, and construction phases of engineering projects; prepares and monitors construction and consultant service contracts and assists in the preparation of requests for proposals; acts as a liaison between Engineering and other District departments, contractors, and the public on matters related to assigned projects; maintains plan files and engineering records; prepares reports; and performs related work as required.

### **SUPERVISION RECEIVED AND EXERCISED**

Receives general direction from the Engineering Manager. Exercises direct supervision over the Engineering Technician. May exercise technical and functional direction over lower-level or contract staff on a day-to-day or project basis.

### **CLASS CHARACTERISTICS**

This is a journey-level classification in the Engineering Department in which the incumbent has responsibility for providing responsible and technical support to District engineering functions including plan review, establishing and collecting appropriate fees for engineering related matters, maintaining engineering records and maps, and informing customers of District engineering related policies, procedures, and regulations. Positions at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit. This class is distinguished from the Engineering Manager in that the latter has overall responsibility for all engineering functions at the District, as well as implementing and interpreting public policy.

### **EXAMPLES OF ESSENTIAL JOB FUNCTIONS** (Illustrative Only)

*Management reserves the rights to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.*

- Assists developers, contractors, and contract engineers in the coordination and execution of private water main extension projects and fire hydrant installations, including reviewing construction drawings, notes and specifications, attending pre-construction meetings, writing correspondence, design review, preparation of agreements, easement and bond retention; ensures conformance with District standards, procedures, and regulations.
- Prepares or assists in the preparation of and/or interprets specifications, plans, estimates, and reports pertaining to the construction, maintenance, and operation of a variety of engineering projects.

- Oversees the District's back flow prevention and cross connection control program to prevent the contamination of the District's potable water, including reviewing the work of staff coordinating the enforcement of applicable rules and regulations.
- Maintains engineering files, including plans, studies, inspections, surveys, maps, and other data related to engineering projects; prepares, updates, reproduces, and distributes maps, drawings, blueprints, and other information.
- Responds orally and in writing to inquiries and requests from the public and coworkers regarding District facilities, easements, and engineering operations, procedures, and regulations, government code, water sources, water supply and demand, current and historical records, maps, and agreements, water conservation, fees and billing procedures.
- Assists customers with engineering-related inquiries and applications, including review, collection of appropriate fees, documentation and distribution of paperwork for updating office records and maps; prepares construction and consultant services agreements and purchase orders.
- Gathers District and inter-agency water supply, production, and demand data and reviews for accuracy; analyzes, prepares, and files spreadsheets and graphs of data for periodic reports to the District Board of Directors.
- Performs computer assisted drafting (AutoCAD) including the preparation of construction plans, notes, record drawings, special purpose illustrations, maps and other engineering drawings.
- Inspects District and private pipeline construction projects for conformance with approved/permitted plans and District standards and specifications; coordinates the inspection of water quality sampling and pressure testing for these projects.
- Assists in the preparation and distribution of project requests for proposals and bid packages.
- Establishes and maintains administrative and project files and record keeping systems.
- Coordinates customer water service shutdowns, prepares permits, and performs inspections for the District's water distribution system improvement projects.
- Participates in pre-design, pre-construction and utility coordination meetings.
- Prepares special studies including field investigation, data collection and analysis using statistical methods and automated software applications; provides technical support to various engineers and planners conducting studies and special projects for the District.
- Tracks development projects from initiation to completion, including project acceptance, release of bonds, and project closeouts.
- Performs project management tasks including bid tabulation, preparation of progress payment spreadsheets, correspondence and transmittals and updating of shop drawing submittal, potential change order and request for clarification logs.
- Prepares a variety of written reports and correspondence.
- Maintains and updates miscellaneous engineering records, files, maps and logs.

- Acts as liaison with volunteer emergency response group – MERRAG – members (public and private organizations and individuals) in response to disasters.
- Reviews and prepares correspondence and Certificates of Water Service Availability for proposed private development and improvement projects.
- Prepares presentations to the public using a variety of graphic software.
- Performs other duties as assigned.

## **QUALIFICATIONS**

### **Knowledge of:**

- General civil engineering principles, practices, and methods applicable to office and field work involving the design, construction, and maintenance of engineering projects.
- General design and construction practices and methods of streets, underground facilities, and related infrastructure.
- Engineering plans, engineering plan check review practices, and permit filing and approval procedures.
- Principles and practices of technical civil engineering drafting and surveying support.
- Drafting and surveying equipment, computers, principles, problems, techniques, and practices.
- Applicable Federal, State, and local laws, codes, and regulations, including administrative and department policies and procedures.
- Technical engineering mathematics.
- Modern office practices, methods, computer equipment and computer applications, including the preparation of Excel spreadsheets, preparation of Word formatted reports and memorandums, use of graphic and presentation software such as Power Point, and general use of Auto CAD concepts and applications.
- Technical report writing practices and procedures.
- Principles and procedures of record keeping.
- English usage, grammar, spelling, vocabulary, and punctuation.
- Communication techniques, both oral and writing for effectively representing the District in contacts with governmental agencies, community groups, and various business, professional, educational, regulatory, and legislative organizations.
- Communication techniques, both oral and writing for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

**Ability to:**

- Perform responsible technical engineering support work with accuracy, speed, and minimal supervision.
- Read and interpret engineering plans, technical drawings, specifications, and subdivision maps.
- Perform standard engineering design under professional engineering supervision.
- Review documents related to department operations; observe, identify and solve technical issues and procedural problems; understand, interpret and explain department policies and procedures; explain operation and problem solve accounting issues for the public and staff.
- Make mathematical calculations and accurate engineering computations and drawings.
- Make and record accurate field engineering observations.
- Understand and follow oral and written instructions.
- Prepare clear and concise reports, correspondence, policies, procedures, and other written materials.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines.
- Operate modern office equipment including computer equipment and specialized software applications programs.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Use tact, initiative, prudence, and independent judgment within general policy and legal guidelines i.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

**Education and Experience:**

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

Equivalent to completion of a two-year degree in a science/engineering field and two (2) years of experience in field or office engineering technical support, construction inspection, basic engineering design, or a related field. College-level coursework in civil engineering is desirable.

**Licenses and Certifications:**

- Possession of, or ability to obtain, a valid California Driver's License by time of appointment.

### **PHYSICAL DEMANDS**

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer, to inspect District development sites, to operate a motor vehicle, and to visit various District and meeting sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. This is partially an office classification, although the job involves field inspection work requiring frequent walking at inspection sites to monitor performance and to identify problems or hazards; standing in work areas and walking between work areas may be required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects weighing up to 25 pounds.

### **ENVIRONMENTAL ELEMENTS**

Employees partly work in an office environment with moderate noise levels, controlled temperature conditions, and may have, during field and site inspections, exposure to hazardous physical substances, fumes, loud noise levels, , inclement weather conditions, road hazards, vibration, confining workspace, chemicals, mechanical and/or electrical hazards.