



ENGINEERING TECHNICIAN I

DEFINITION:

Under general direction, performs responsible technical engineering support work in the design and construction of District structures and facilities; reviews maps and plans for conformance with District engineering requirements; assists with project management and construction management, in addition to field inspections on construction projects; and performs related work as required.

SUPERVISION RECEIVED/EXERCISED:

Receives general direction from the Associate Engineer. May exercise administrative and project direction over contractors.

ESSENTIAL FUNCTIONS: *(include but are not limited to the following)*

*Class specifications are only intended to present a description summary of the range of duties and responsibilities associated with specified positions. Therefore, specifications **may not** include all duties performed by individuals within a classification. In addition, specifications are intended to outline the minimum qualifications necessary for entry into the class and do not necessarily convey the qualifications of the incumbents within the class.*

- Assists in the preparation of design and plans for water and sewer projects and associated facilities as applicable.
- Prepares estimates for materials and quantities in the development of plans, profiles, maps, and drawings for construction projects as required and as applicable.
- Performs drafting and map drawing assignments; assists with the preparation of a variety of engineering reports.
- Prepares plans and profile sheets, locating utilities and obstacles which may present construction problems.
- Meets with developers, engineers, and consultants to discuss concepts and general requirements for new capital and development projects.
- May represent the District in coordination with other utilities, regulatory agencies, governmental bodies, planning agencies, trade and professional associations, technical groups and developers.
- Reviews maps, plans and specifications for compliance with District engineering standards.
- Assists with construction inspection assignments; performs field inspections of job sites to verify the accuracy of drawings and profiles.
- Prepares right-of-way maps depicting properties in detail.

- May collect domestic water samples for laboratory analysis on construction projects.
- Provides assistance to the public on a variety of subjects such as the location of District facilities, topographical maps, availability of services and District design requirements.
- Assists in preparation of contract documents and specifications for engineering projects and construction design services as applicable; providing project management, oversight, implementation and administration of projects, including procurement and management of professional consultants contracts services.
- Reviews water and sewer plans to calculate and create an estimate for the developer for the proper water and sewer fee calculations that may be required by such development. Assists with related applications.
- Prepares correspondence related to engineering functions and a variety of technical reports.
- Answers questions and provides information to the public concerning engineering activities and customer issues.
- Represents the Department with other departments, elected officials, and outside agencies.
- Works closely with other District staff, developers, engineers and consultants to cooperatively complete District tasks and projects.
- Assumes responsibility for ensuring the duties of the position are performed in a safe, efficient manner.
- Works weekends, evenings and holidays as required to accommodate the District's needs, in addition to responding as a Disaster Emergency Service Worker.
- Performs other related duties as assigned.

PHYSICAL, MENTAL AND ENVIRONMENTAL WORKING CONDITIONS:

The essential functions of this position may require the employee to perform the following physical activities. Some of these requirements may be accommodated for otherwise qualified individuals requiring and requesting such accommodations.

- Work in an office environment with some exposure to dust, dirt, and hazardous materials.
- Stand, walk and sit for extended time periods; able to carry, push, pull, reach and lift objects of light to medium weight; hearing and vision within normal ranges.
- Communicate orally with District management, co-workers, and the public in face-to-face, one-to-one and group settings; regularly use a telephone and two-way radio for communication.

- Read and interpret complex data, information and documents; analyze and solve complex problems; use math/mathematical reasoning; perform highly detailed work under changing, intensive deadlines, on multiple concurrent tasks; work with constant interruptions, and interact with all levels of District management, board members, other elected and appointed governmental officials, media representatives, business and community leaders, employees, the public and others encountered in the course of work.
- Operate office equipment including use of computer and keyboard; work at a desk and computer for extended time periods; look at computer monitor for extended time periods.
- Travel by vehicle while conducting company business.

QUALIFICATIONS: *The following are minimal qualifications necessary for entry into the classification.)*

Education and/or Experience:

Any combination of education, training and experience that would likely provide the necessary knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be graduation from high school or equivalent with completion of courses in algebra, geometry, trigonometry, and drafting, and two (2) years of responsible technical experience in engineering support work. Additional qualifying experience may be substituted for the work requirement on a year for year basis when supplemented by the completion of college level courses in engineering, construction technology, water, wastewater, business or public administration and project management.

License/Certificate:

Possession of a valid Class C California driver's license and satisfactory driving record.

Possession of Operator Certifications from California State Water Resources Control Board in Water Distribution and Water Treatment is highly desirable.

Possession of a project management or construction management certificate is highly desirable.

KNOWLEDGE/SKILLS/ABILITIES: *(The following are a representative sample of the KSAs necessary to perform essential duties of the position.)*

Knowledge of:

- Relevant Federal, State and local laws and regulations, and District ordinances and codes. Theory, principles and practices of civil engineering planning, design and construction including project management.
- Technical report writing.
- Modern methods and techniques used in the design and construction of a wide variety of water and sewer projects; strength, properties and uses of construction materials.
- Computers and computer programs including use and administration of Geographical Information Systems (GIS) and AutoCad software.
- Effective oral and written communication skills.

- Record keeping and filing practices and procedures.
- Engineering drafting materials, instruments, and techniques.
- Mathematical principles as applied to water and sewer system operations and design such as algebra, geometry, and trigonometry.
- Water and sewer system construction methods.
- Methods, materials, tools, and equipment used in engineering design.
- Property description and location methods and terminology.
- Budgeting principles, methods and terminology.
- Cost estimating and contract administration.
- Advanced operations and uses of standard spreadsheet, database, word processing and presentation software.
- Safe work methods and safety regulations, general office/vehicle safety practices and regulations.

Ability to:

- Plan, organize and direct an effective engineering program.
- Interpret and explain District policies and procedures.
- Ability to manage multiple priorities and constantly changing deadlines.
- Keep abreast of trends and advances in methods and technology related to engineering related functions and areas of responsibility.
- Accurately review and prepare semi-routine to difficult engineering drawings, plans, specifications and cost estimates.
- Effectively create, evaluate and administer consultant contracts for professional services.
- Make and check engineering computations quickly and accurately.
- Maintain engineering records and files.
- Prepare property descriptions.
- Gather data and make a variety of engineering computations.
- Perform research and prepare clear, concise reports.
- Perform construction inspection as necessary.
- Understand and follow oral and written directions.
- Work effectively with a small group or individually.
- Provide excellent customer service and resolve public concerns and complaints.
- Skillfully and safely operate a motor vehicle when required in the course of performing work duties.
- Exercise independent judgment and initiative within established guidelines.
- Establish and maintain excellent working relationships with community organizations, District staff and Board, contractors, and the general public.
- Operate a computer and related software at an advanced level.