

ENGINEERING TECHNICIAN

DEFINITION

Performs a wide variety of technical field and office duties and provides operational support and assistance for the Engineering Department, including performing sanitary sewer inspections, providing technical advice to the public, maintaining engineering records, preparing reports, performing basic engineering calculations and related work as assigned.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the General Manager and direct supervision from the District Engineer. Exercises no supervision over staff.

CLASS CHARACTERISTICS

The Engineering Technician participates in all standard construction, maintenance, repair, installation and upgrade activities of the District's wastewater collection and disposal systems. Responsibilities include support for the District Engineer in coordinating the activities of the department with those of other departments. Duties also include receiving and responding to inquiries and complaints and frequent use of tact and judgment, performing field observations and surveys, researching engineering topics and updating maps and drawings. The work requires good knowledge of departmental operations.

EXAMPLES OF ESSENTIAL DUTIES (Illustrative only)

- Assists in the preparation of specifications, plans, estimates and reports pertaining to the construction, maintenance and operation of a variety of engineering projects.
- Performs field, office and computer-aided studies and prepares periodic and special reports based on findings from research, studies and surveys; and makes recommendations on findings.
- Performs basic design and drafting duties in connection with sewer lines, laterals and other projects.
- Maintains engineering files, including plans, studies, inspections, surveys, maps and other data related to engineering projects; updates maps and engineering drawings and other information recorded in GIS.
- Receives and responds to requests from developers, contractors, private engineers, title companies and others for base maps, parcel maps, improvement plan information, permits and federal, state and local codes, specifications and ordinances.
- Develops basic Auto-CAD drawings and sketches, plot plans and site lay-outs and formats map layouts and plot drawings for engineers and contractors
- As assigned, assists with construction inspections of District projects and private developments; may make field or laboratory tests on materials and review adherence to plans and specifications.
- Makes engineering calculations in connection with field and office work.
- Performs flow monitoring and sampling of wastewater.
- Marks location of underground sewer facilities in response to U.S.A. notifications.

QUALIFICATIONS

Knowledge of:

- General construction principles and practices in the field of wastewater collection and disposal systems.
- Principles, methods and techniques of design, drafting and mapping.
- Basic design and maintenance practices of underground sewer lines, pump stations and related infrastructure.
- Basic equipment, materials and methods used in the maintenance, cleaning and inspection of a wastewater collection system.
- Equipment such as flow meters and wastewater samplers.
- Computer user applications as applied to the solution of engineering problems, such as Geographical Information Systems, CAD and database/spreadsheet applications.
- Technical engineering mathematics.
- Applicable laws, codes and regulations.
- Technical report writing practices and procedures.
- Record keeping principles and practices.
- Techniques for effectively representing the District in contacts with professionals, developers, contractors and the public.

Skill in:

- Performing most routine functions related to wastewater collections and disposal systems with minimal instructions and direction.
- Reading and interpreting engineering plans and specifications.
- Using engineering drafting and surveying instruments.
- Making mathematical calculations and accurate engineering computations and drawings.
- Performing standard engineering design under professional engineering supervision.
- Making and recording accurate field engineering observations.
- Preparing clear and concise reports, correspondence, policies, procedures and other written materials.
- Maintaining accurate records and files.
- Establishing, maintaining and fostering positive and harmonious working relationships with those contacted in the course of work.

Education and Experience:

Equivalent to completion of two years of college-level coursework in civil engineering and/or drafting and two years of experience in field or office engineering technical support or drafting which has provided familiarity with engineering drafting, surveying, map checking, construction inspection, materials testing and basic engineering design.

Interpersonal Effectiveness:

Ability to work effectively in a team-based organization focused on continuous improvement; establish and maintain a positive customer service attitude and effective working relationships with customers;

demonstration of strong two-way communication skills, including the ability to listen, explain, and facilitate; ability to ask for input; offer help without being asked; accept suggestions; work with others to solve problems; and provide recognition and encouragement.

License and Certification:

Must possess a valid California class C driver's license and have a satisfactory driving record. Must possess or obtain Cardiopulmonary Resuscitation and First Aid certificates within a time period specified by the District.

Other Requirements:

Willingness and ability to work scheduled and emergency overtime; and attend meetings, workshops, and seminars during work and non-work hours as assigned.

Physical Requirements:

Be able to possess mobility and physical stamina to inspect various collection system and pumping station sites; work on uneven terrain; vision to read printed materials and a computer screen and hearing and speech to communicate in person, and over the telephone; sit and stand for long periods of time, bend, stoop, pull, stretch and reach; and strength and stamina to safely lift and carry up to 50 pounds.

Work Environment:

Works indoors, using computer monitor, works around others, works alone, works with others. The work requires outside exposure to all weather conditions with, dust, noise, some potentially hazardous materials and electrical or heavy equipment.