

**WEST VALLEY SANITATION DISTRICT
OF SANTA CLARA COUNTY**

SENIOR ENGINEERING TECHNICIAN

Class specifications are only intended to present a descriptive 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 incumbents within the position.

DEFINITION

Under general supervision or direction, the Senior Engineering Technician performs a variety of technical and paraprofessional duties depending on the respective assignment: 1) engineering function or 2) permit and code enforcement function. The duties associated with the engineering assignment generally involve performing paraprofessional civil engineering work associated with the planning, design, construction, and management of capital projects. The duties associated with the permit and enforcement assignment generally involve performing highly technical work associated with the investigation, review, and processing of sewer use and connection permits, enforcement of Ordinance Codes, and oversight of District Programs identified in the Code or through other regulatory requirements.

DISTINGUISHING CHARACTERISTICS

The Senior Engineering Technician is the journey level class relative to the Assistant and Associate Engineering Technician Series, distinguishing itself by the performance of more difficult and complex tasks within the particular assignment.

Within the engineering function and under the supervision of engineers, the distinguishing characteristics of the positions include: assists in the development, preparation, and review of engineering plans and specifications, maps, and studies; performs quantity takeoffs and cost estimates; performs field surveying using traditional and global positioning system (GPS) surveying instruments; tracks and performs detailed inspection and testing for the construction of capital improvement projects and sewer infrastructures in private developments; assists in the investigation and review of archived documents for system or easement information.

Within the permits and code enforcement function and under the supervision of the department supervisor, the distinguishing characteristics of the positions include: inspects and enforces permit, ordinance, and regulatory requirements; performs enforcement responsibilities related to Code violations; performs investigation, evaluation, and processing of information related to District operations including tax rolls, parcel database, water meter records, service requests; assists the public with the processing of plans and sewer permit applications; calculates fees and charges.

Common duties associated with both functions include: performs field review and inspections of existing or new facilities; performs research, review, and interpretation of maps and documents; writes reports, creates spreadsheets, and prepares presentations; operates computers using technical and standard office suite software; performs data input, review, analysis, report, and mapping generation from the District's computerized maintenance management system (CMMS) and geographic information system (GIS); performs CCTV inspection and condition assessment of sewer pipe; performs basic and intermediate mathematical computations; demonstrates a full understanding of District Standards, Policies and Ordinances, current industry practices, CalOSHA regulations, applicable state codes, regulatory requirements, procedures and work methods associated with assigned duties; serves as a technical resource in resolving service issues with members of the public or other agencies; and performs other related duties as required.

SUPERVISION RECEIVED AND EXERCISED

The Senior Engineering Technician receives direct guidance and supervision from the department supervisor. Incumbents in this class exercises technical functional supervision over lower level Engineering Technicians.

EXAMPLES OF ESSENTIAL FUNCTIONS

Duties of both assignments are combined below and may include, but are not limited to, the following:

- Performs calculations for wastewater collection, vertical and horizontal alignments; develops, modifies and maintains computer programs required to provide graphics, maps, overlays and for engineering drawings.
- Researches files for existing plans, profiles and maps for data on proposed projects.
- Makes field checks of project sites as needed; performs title searches, research right-of-way and easements based on legal descriptions.
- Interprets and draft legal description drawings; prepares sketches of designs from instructions and design data; interprets and converts survey notes to various types of drawings.
- Assists the public, engineers, architects, developers and representatives of other governmental agencies by phone and at the counter; provides information regarding permit policies and procedures; evaluates project plans to determine proper processing procedures and requirements in accordance with the appropriate related codes; coordinates division work flow and plan review with other divisions and agencies.
- Designs and prepares specifications, mapping, and cost estimates of capital projects involved in wastewater collection, treatment, reclamation and discharge; assists in gathering information for District's GIS systems.
- Reviews a variety of applications for completeness; determines types of inspections and reviews requirements for proposed construction; coordinates and monitors application

processing and inspection scheduling; approves or denies project plans after performance of elementary plan checking for completeness and conformance to applicable codes; explains how to correct deficiencies in original applications and the process for reapplication.

- Assists construction inspection staff in conducting and preparing statistical and research projects, and field inspection; compiles division statistics and related data; researches and analyzes data for special projects as assigned; assists in maintaining and updating tax roll information.
- Prepares daily construction inspection reports and final inspection punch lists; maintains general job records; prepares documentation of analysis or investigations; responds to complaints related to construction activities, permitting, rates and fees issues at the counter, in the field, and over the phone.
- Calculates, collects, records and reconciles fee collections and credits; coordinates fee collection with finance staff; produces report for various District and government agencies; initiates, coordinates and maintains department records, files and other reference materials including retention of permits, master file drawings, plans and specifications.
- Coordinates development of preventive maintenance database, including data input, and monitors, audits and maintains the accuracy and integrity of the preventive maintenance database.
- Performs a variety of assignments involved in the collection, verification and documentation of information used by the District in a variety of GIS and information databases and reports; prepares information for use in determining the tax rolls and parcel owner identification.
- Issues sewer connection permits and conducts analysis of service availability; coordinates variety of information, permitting and other related activities.
- Gathers information regarding engineering drawings, maps and plans for use in maintaining the District's GIS systems.
- Responds to complaints received from members of the public or other agencies regarding District services and attempts to resolve issues.
- Establishes positive working relationships with representatives of community organizations, state/local agencies and associations, District management and staff and the public.

WORKING CONDITIONS

Position requires sitting, standing, walking on level and sloped surfaces, reaching, twisting, turning, kneeling, bending/stooping, crouching, grasping, and making repetitive hand movements in the performance of daily activities in both the field and office settings. The duties often involve extended periods of sitting at a computer workstation. Typical examples of requirements include:

- Use of near and far vision: inspecting construction work, reading plans and specifications, reviewing documents, using computers, and operating assigned equipment.
- Use of acute hearing: during phone conversations, communicating with other individuals, listening for auditory signals or cues from office and field/construction equipment.
- The ability to lift, carry, pull and push tools, supplies and other equipment of varying weight. Reference the Engineering Technician Physical Demand Assessment for strength and motion requirements that are associated with essential functions of this position.
- The ability to work outdoors in all weather conditions, including wet, dry, hot, and cold.
- Regular and continuous use of office equipment and computers for extended periods of time.

The essential functions and physical requirements of this position are described in the Physical Demand Assessments for Assistant/Associate/Senior Engineering Technician. Some of these requirements may be accommodated for qualified individuals requiring such accommodations.

Employees of the District are, by State and Federal law, Disaster Service Workers (CA Government Code, Section 3100). In the event of a declared emergency, any employee may be assigned activities that promote the protection of public health and safety, or the preservation of lives and property, either at the District or within the local community.

MINIMUM QUALIFICATIONS

Education and Experience:

Any combination equivalent to the education and experience requirements that provides the required knowledge, abilities, and skills necessary for the position is considered qualifying.

A typical way of meeting the required education and experience is to possess the equivalent of:

- Completion of high school.
- Four years of related experience (construction, inspection, public works maintenance, engineering technology, etc.)
- Two years of experience equivalent to a District Associate Engineering Technician.
- One year of technical training with a focus in engineering, construction, inspection, GIS, or two years of college with major coursework in math, science, or engineering may be substituted for one year of the required related experience.

License/Certificate:

- Possession of, or ability to obtain within three months of hire, a valid, Class C California driver's license is required to perform the duties of the position. Continued maintenance of this driver's license in compliance with established District vehicle operation standards, and the ability to be insured for the operation of a vehicle in

accordance with the terms and conditions of the District's insurance program are conditions of District employment.

KNOWLEDGE/ABILITIES/SKILLS

The following are representative samples of KAS's necessary to perform essential duties of the position. Some KAS's shown may be more relevant to one assignment or another while some, or portions of some, are relevant to both.

Knowledge of:

- Basic civil engineering principles, land surveying (GPS, legal descriptions), pipeline construction (methodology, materials, inspection, practices), drafting (CAD, GIS), as related to wastewater collection systems.
- Basic math and mathematic principles including geometry and trigonometry.
- Maps, engineering and architectural drawings, construction specifications, and technical reports and studies.
- Utility locating service, marking protocol, and procedures (USA locating).
- Applicable federal, state and local laws and regulations, building codes, and District Ordinances, standards, policies, and procedures related to the design, construction, maintenance, permitting, and use of public and private wastewater collection systems and facilities.
- Cal OSHA Construction Safety Orders, and District Safety Plans and procedures.
- Computerized maintenance management systems (CMMS), geographic information system (GIS) and other mapping systems.
- Principles of supervision, public relations, and customer service.
- Modern office practices, methods, and office procedures and equipment, including desktop computers and common MS Office Suite software (Word, Excel, and Outlook).
- English usage, grammar, spelling, vocabulary, and punctuation.

Skill and Ability to:

- Prioritize, organize, and complete multiple concurrent tasks within established timeframes.
- Read, understand and interpret plans, specifications, County Assessor's maps, legal descriptions, collection system mapping, technical reports, and supporting documentation with accuracy and thoroughness.
- Assist in the preparation of plans and specifications, drawings, scope of work narratives, technical reports, spreadsheets, charts in a neat and accurate form.
- Perform field engineering using the appropriate equipment or tools to inspect sewer lines, perform construction inspections, measure elevations for backflow protective devices, and measure coordinates of sewer structures and other physical features.
- Resolve challenging issues or situations when dealing with staff, the public, and other government agencies with professionalism, tact and diplomacy to reach mutually acceptable outcomes.

- Communicate through written correspondence and verbal conversations in a clear and concise manner.
- Accurately interpret, explain and apply applicable laws, codes and regulations.
- Receive, process, manage, track sewer permit applications. Perform thorough and accurate reviews of sewer permit applications including verification of the correct use designation and calculation of permit fees.
- Perform inspection, facility outreach, tracking, and administration of the District's Fats, Oils, and Grease (FOG) Program.
- Assist in the management, tracking, execution, and administration of enforcement actions against offenders of the District Code.
- Accurately interpret existing USA markings and properly mark facilities or provide appropriate sewer mapping to meet the time requirements of the USA request.
- Effectively operate and utilize computers or field laptops and associated office suite and technical software to create letters, reports, spreadsheets, update databases, create inspection reports, produce mapping, and issue permits.
- Provide required technical supervision, oversight, and guidance to motivate and develop assigned staff.
- Properly drive an assigned motorized vehicle in a safe and responsible manner, and with requisite care.