

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

ASSOCIATE CIVIL ENGINEER

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, performs a variety of professional level engineering work involving the planning, design, evaluation, and construction of District facilities; performs project and construction management tasks as assigned on District CIP and repair projects; prepares and/or reviews engineering reports, drawings, specifications and calculations for sewers and other ancillary facilities to ensure conformity and compliance with District Standards and ordinances, current industry practices, codes, and regulatory requirements; performs review and analysis of sewer system assets, maintenance history, and programs; demonstrates full understanding of all applicable policies, procedures and work methods associated with assigned duties; and performs other related duties as required.

DISTINGUISHING CHARACTERISTICS

The Associate Civil Engineer is the journey level, licensed class in the professional engineering series that performs difficult and complex tasks in the field of civil engineering. Under general supervision by upper level engineering staff, incumbents exercise independence and the use of judgment and initiative in the performance of their duties. Incumbents are routinely assigned project and construction management responsibilities for major CIP studies and projects. This classification is distinguished from the Senior Civil Engineer in that the latter performs the most complex and highly difficult assignments, reviews and is responsible for work performed by lower level engineering staff, and requires the performance of supervisory responsibilities. Incumbents may qualify to compete for advancement to the Senior Civil Engineer level after gaining adequate experience and demonstrating a level of proficiency that meet the qualifications of the higher level class.

SUPERVISION RECEIVED AND EXERCISED

The Associate Engineer receives direct supervision and direction from the Senior Civil Engineer and general supervision and direction from other higher level professional or management personnel. The Associate Engineer may exercise functional and technical supervision over lower level professional and technical staff.

EXAMPLES OF ESSENTIAL FUNCTIONS

Duties may include, but are not limited to, the following:

- Performs a broad range of construction project management and design activities on a variety of capital improvement projects, including sewer extension construction and rehabilitation.
- Performs review, analysis, data gathering and input of maintenance and asset information involving sewers, maintenance history, and District maintenance programs utilizing

computerized maintenance management software (CMMS) and geographic information systems (GIS).

- Performs review and analysis of closed circuit television (CCTV) inspections of sewer assets utilizing accepted industry standard for inspection and computerized CCTV inspection software.
- Reviews and/or prepares plans and specifications for a wide variety of engineering drawings and plans; performs computer-aided design and drafting (CADD); prepares quantity and cost estimates; assists in the development of design procedures and standards; interprets the application of design criteria; checks plans and specifications for accuracy of design and completeness; reviews and/or assists in developing legal descriptions.
- Assists higher level engineers in the management and administration of complex design and construction projects and serves as project manager for less complex projects; coordinates capital improvement projects with consultants, contractors, utility companies, other governmental and regulatory agencies, and the general public.
- Performs construction inspection on a variety of District CIP and repair projects involving sewer repair, rehabilitation, and installation.
- Prepares and/or creates a variety of correspondence, technical memorandums, reports, spreadsheets, databases, and graphs.
- Reviews, analyzes, and interprets: hydraulic model studies and utilizes hydraulic modeling software to predict flow; pipe flow measurement and rainfall monitoring studies; geotechnical reports; environmental studies and CEQA documents; traffic control plans; and storm water pollution prevention plans.
- Interprets codes and regulations in the performance of plan check activities; calculates engineering review and inspection fees; coordinates plan review process with other departments and agencies.
- Administers and enforces District standards on engineering projects; addresses and responds to citizen concerns related to engineering issues.
- Establishes and maintains positive working relationships with representatives of community organizations; state/local agencies, contractors, District staff, and the public.
- Occasionally exercises some degree of technical oversight of lower level engineers and technicians.
- Drives a motorized vehicle.

WORKING CONDITIONS

Position requires sitting, standing, walking on both level and inclined slippery surfaces, reaching, twisting, turning, kneeling, bending, stooping, squatting, crouching, grasping, crawling and making repetitive hand and finger movement in the performance of daily duties both in the field and office setting. 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 Associate Civil Engineer Job Task Analysis for strength and motion requirements to perform essential functions of this position.
- The ability to work outdoors in all weather conditions, including wet, dry, hot, and cold.
- Continuous use of office equipment and computers for extended periods of time and on a regular basis.

Some of these requirements and others may be accommodated, for otherwise qualified individuals requiring and requesting such accommodations.

MINIMUM QUALIFICATIONS

Possession of, or ability to obtain, 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 employment.

Education and/or Experience:

A Bachelor's degree in civil engineering from an ABET accredited college/university engineering program or a closely related field. Three (3) years of experience at the District's Assistant Engineer position, or equivalent. A Master's degree in civil engineering from an accredited engineering program may be substituted for one year of required experience.

License/Certificate:

Possession of a valid certificate of registration as a Civil Engineer, issued by the California Board for Professional Engineers and Land Surveyors.

KNOWLEDGE/ABILITIES/SKILLS

The following are representative samples of KAS's necessary to perform essential duties of the position.

Knowledge of:

- Principles, practices, and methods of civil engineering as applied to the planning, design, construction, operations and maintenance of wastewater treatment and collection systems.
- Construction management, project management, and contract administration.
- Partnering concepts and contract negotiation techniques.
- Construction methods and materials, and inspection practices, especially in the areas of public works and sewer pipeline construction.
- Land surveying and basic surveying practices, including legal descriptions and its terminology.
- Construction scheduling methods and practice using Critical Path Method (CPM) and Gantt Chart.
- CalOSHA General Industry and Construction Safety Orders and practices, and District safety procedures.

- Modern office practices, methods, and office equipment.
- MS Office Suite software; Word, Excel, PowerPoint, Access, Projects, and Outlook.
- English usage, grammar, spelling, vocabulary, and punctuation.
- Applicable federal, state, and local laws, codes and regulations including District codes, ordinances, and design specifications.
- Principles of CEQA environmental compliance.
- Principles of hydrology and hydraulics and sewer network modeling.
- Computerized maintenance management software (CMMS) and geographic information systems (GIS).
- Closed circuit television (CCTV) inspection methods, industry standards for pipeline and manhole inspection, and associated software.

Ability to:

- Serve as project manager and or engineer on one or more Capital Improvement Projects.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner to meet critical time deadlines.
- Read and interpret plans and specifications.
- Interpret, apply, and explain complex laws, codes, regulations, and ordinances.
- Analyze written information and mathematical data to understand and ability to summarize this information to others.
- Independently perform complex planning, design, and engineering functions.
- Provide some technical oversight of lower level engineers and technicians.
- Operate modern office equipment including computer equipment and a variety of word processing and software applications.
- Prepare clear and concise reports, correspondence, policies, procedures, and other written materials using proper English, grammar, spelling, vocabulary, and punctuation.
- Make accurate arithmetic, financial, and statistical computations.
- Effectively communicate with tact, diplomacy, and professionalism in person, through correspondence, e-mail, and over the phone.
- Establish and maintain positive working relationships with representatives of community organizations; state/local agencies, contractors, District staff, and the public.

Skill to:

- Effectively use a computer and proficiently use a variety of engineering and Microsoft Office software applications to create letters, reports, graphs, databases, and spreadsheets.
- Inspect construction projects to determine compliance with contract documents.
- Observe and determine safe and unsafe working conditions on the construction site.
- Create and/or modify drawings using CADD.
- Safely and effectively operate engineering tools and equipment.
- Drive a motorized vehicle safely and responsibly.