
Castro Valley Sanitary District

POLICIES AND PROCEDURES MANUAL

POLICY TITLE: Job Description – Engineering Assistant
POLICY NUMBER: 2332

2332.1 Definition. Provides a wide variety of field and office duties and provides operational support and assistance for the Engineering and Wastewater Departments, including performing sanitary sewer inspections, assisting with source reduction programs, providing technical advice to the public, maintaining engineering records, preparing reports, performing basic engineering calculations, and related work as assigned.

2332.2 Supervision Received and Exercised. Receives general supervision from the General Manager and direct supervision from Castro Valley Sanitary District (CVSan) and Associate Engineer. Exercises no supervision over staff.

2332.3 Class Characteristics. The Engineering Assistant participates in all standard construction, maintenance, repair, installation, and upgrade activities of CVSan's wastewater collection and disposal systems. Responsibilities include support for CVSan and the Associate Engineer in coordinating the activities of the department with those of other departments. Duties also include receiving and responding to inquiries and complaints, frequent use of tact and judgment, performing field observations, inspections, and surveys, and researching engineering topics, updating maps and drawings. The work requires good knowledge of departmental operations.

2332.4 Essential Job Functions:

2332.4.1 Perform field, office and computer-aided studies and prepare periodic and special reports based on findings from research, studies and surveys; makes recommendations on findings.

2332.4.2 Perform basic design and drafting duties in connection with sewer lines, laterals, and other projects.

2332.4.3 Maintain engineering files, including plans, studies, inspections, surveys, maps, and other data related to engineering projects; update maps and engineering drawings and other information recorded in Geographical Information System (GIS)

2332.4.4 Receive and respond to requests from developers, contractors, private engineers, title companies, residents, and others for base maps, parcel maps, improvement plan information, permits and federal, state and local codes, specifications, and ordinances.

2332.4.5 Develop basic AutoCAD drawings and sketches, plot plans and site lay-outs, and formats map layouts and plot drawings for engineers and contractors.

2332.4.6 Make engineering calculations in connection with field and office work.

2332.4.7 Perform flow monitoring and sampling of wastewater.

2332.5 Essential Cognitive Job Functions:

2332.5.1 Ability to comprehend and follow instructions:

2332.5.1.1 Ability to maintain attention and concentration for necessary periods.

2332.5.1.2 Ability to understand written or oral instructions.

2332.5.1.3 Ability to do work requiring set limits, tolerances, or standards.

2332.5.2 Ability to perform simple and repetitive tasks:

2332.5.2.1 Ability to ask appropriate questions and request assistance.

2332.5.2.2 Ability to perform activities of a routine and applicable nature.

2332.5.2.3 Ability to remember locations and work procedures.

2332.5.3 Ability to maintain a work pace appropriate to a given workload:

2332.5.3.1 Ability to perform activities within a schedule, maintains regular attendance, and be punctual.

2332.5.3.2 Ability to complete a normal work day and/or work week and perform at a consistent pace.

2332.5.4 Ability to perform complex and varied tasks:

2332.5.4.1 Ability to synthesize, coordinate, and analyze data.

2332.5.4.2 Ability to perform jobs requiring precise attainment of limits, tolerances, or standards.

2332.5.4.3 Ability to perform a variety of duties, often changing from one task to another of a different nature without loss of efficiency or composure.

2332.5.5 Ability to relate to other people beyond giving and receiving instructions:

2332.5.5.1 Ability to get along with co-workers and peers.

2332.5.5.2 Ability to perform work activities requiring negotiating with, explaining, or persuading.

2332.5.5.3 Ability to respond appropriately to evaluation or criticism.

2332.5.6 Ability to influence people:

2332.5.6.1 Ability to convince or direct others.

2332.5.6.2 Ability to understand the meaning of words and to use them appropriately and effectively.

2332.5.6.3 Ability to interact appropriately with people.

2332.5.7 Ability to make generalizations, evaluations, or decisions without immediate supervision:

2332.5.7.1 Ability to recognize potential hazards and follow appropriate precautions.

2332.5.7.2 Ability to understand and remember detailed instructions.

2332.5.7.3 Ability to make independent decisions or judgments based on appropriate information.

2332.5.7.4 Ability to set realistic goals or make plans independently of others.

2332.5.8 Ability to accept and carry out responsibility for direction, control, and planning:

2332.5.8.1 Ability to set realistic goals or make plans independently of others.

2332.5.8.2 Ability to negotiate with, instruct, and supervise people.

2332.5.8.3 Ability to respond appropriately to changes in work conditions.

2332.6 Non-Essential Job Functions:

2332.6.1 Assist in the preparation of specifications, plans, estimates and reports pertaining to the construction, maintenance and operation of a variety of engineering projects.

2332.6.2 As assigned, assist with construction inspections of CVSan projects and private developments; may make field or laboratory tests on materials and review adherence to plans and specifications.

2332.7 Qualifications. Knowledge of:

2332.7.1 General construction principles and practices in the field of wastewater collection and disposal systems.

2332.7.2 Principles, methods, and techniques of design, drafting, and mapping.

2332.7.3 Basic design and maintenance practices of underground sewer lines, pump stations, and related infrastructure.

2332.7.4 Basic equipment, materials, and methods used in the maintenance, cleaning, and inspection of a wastewater collection system.

2332.7.5 Equipment such as flow meter, wastewater sampler, metal detector, computer, surveying instruments, and plotter.

2332.7.6 Computer user applications as applied to the solution of engineering problems, such as GIS, CAD, CMMS, and database/spreadsheet applications.

2332.7.7 Technical engineering mathematics.

2332.7.8 Applicable laws, codes, and regulations.

2332.7.9 Technical report writing practices, and procedures.

2332.7.10 Record keeping principles and practices.

2332.7.11 Techniques for effectively representing CVSan in contracts with professionals, developers, contractors, and the public.

2332.7.12 Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.

2332.8 Skill to:

2332.8.1 Perform most routine functions related to wastewater collections and disposal systems with minimal instructions and direction.

2332.8.2 Read and interpret engineering plans and specifications.

2332.8.3 Use engineering, drafting, and surveying instruments.

2332.8.4 Make mathematical calculations, accurate engineering computations, and drawings.

2332.8.5 Perform standard engineering design under professional engineering supervision.

2332.8.6 Make and record accurate field engineering observations.

2332.8.7 Prepare clear and concise reports, correspondence, policies, procedures, and other written materials.

2332.8.8 Maintain accurate records and files.

2332.8.9 Establish, maintain and foster positive and harmonious working relationships with those contacted in the course of work.

2332.8.10 Ability to work independently.

2332.9 Education and Experience. Equivalent to completion of two (2) years of college-level coursework in civil engineering and/or drafting and two (2) 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.

2332.10 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; provide recognition and encouragement.

2332.11 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, AED, and First Aid certificates within a time period specified by CVSan.

2332.12 Other Requirements. Willingness and ability to work scheduled and emergency overtime; attend meetings, workshops, and seminars during work and non-work hours as assigned.

2332.13 Physical Requirements. Be able to possess mobility and physical stamina to inspect various collection system and pumping station sites; work on uneven terrain; interpret printed materials and a computer screen; communicate with people in person and over the telephone. Maintain static postures for extended periods of time, frequent repetitive use of hands and arms including grasping; occasionally bend, stoop, stretch and reach; have strength and stamina to safely transport up to fifty (50) pounds.

2332.14 Work Environment. The work requires outside exposure to all weather conditions with dust, noise, fumes, odors, traffic, potentially hazardous materials, and electrical or heavy equipment. May work in confined spaces. Also works in an indoor climate controlled office environment working around computer monitors; with and around others, or alone.

This description reflects CVSan's assignment of essential functions, it does not proscribe or restrict the tasks that may be assigned.

Employee Signature

Date

Employer Signature

***** END OF POLICY *****