VALLEY CENTER MUNICIPAL WATER DISTRICT

ENGINEER I, II

DEFINITION

Under supervision, incumbents perform a variety of routine to complex professional-level civil engineering work, supporting planning, design, and asset management of municipal water and wastewater infrastructure.

CLASS CHARACTERISTICS

Incumbents are expected to perform a wide range of increasing complex duties depending on experience levels related to engineering support activities to include, but not limited to, the following: preparation of engineering plans and specifications for the construction of projects, customer service, engineering records processing and maintenance, computer drafting, geographic information system utilization, plan review, material submittal review, water and wastewater design, and project coordination assistance.

Engineer I is an entry level position in the series under immediate supervision. Incumbents are responsible for professional and technical engineering assignments requiring the gathering and compiling of data and preparing designs, plans, details, estimates and specifications for construction, operation and maintenance of District projects.

Engineer II is a journey level position in the series under general supervision. Incumbents are expected to perform the Engineer I duties with a higher level of understanding and application with less direct supervision. Incumbents are responsible for complex professional and technical engineering assignments requiring the use of judgment and initiative in developing solutions to problems and interpreting policies.

ESSENTIAL DUTIES

The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related, or a logical assignment to this position.

Assist in the planning, design, and construction oversight of water, wastewater, and reclaimed water infrastructure projects including Stormwater Pollution Prevention Plans.

Prepare plan layouts, details, technical drawings, design calculations, and specifications using AutoCAD, GIS and other engineering software.

Review improvement plans, grading plans, drainage studies, geotechnical reports and water quality technical reports for accuracy and conformance with District standards.

Make engineering calculations related to hydrology, hydraulics, structural stresses and strengths.

Conduct water and wastewater system modeling to assess system capacity, performance, and future demand as well as operate and update the respective computer models.

Analyze GIS data for asset management and system planning purposes.

Prepare engineering reports, cost estimates, and construction documents, including professional service agreements, resolutions, and written reports for the General Manager, Department Directors, and Board of Directors.

Prepare and/or supervise the preparation of legal descriptions and grant deeds for easements and property acquisitions.

Investigate and check tentative and final subdivision maps for accuracy, design, completeness and conformance to District Administrative Code standards and the State Subdivision Map Act.

Inspect underground utility systems, lift and pump stations, reservoirs, force mains, pressure regulation stations, etc.

May serve as project engineer, project manager, inspector and/or construction manager for utilities projects under some direction, supervision, and review by others.

Coordinate with and answer questions from other internal departments, external agencies, consultants, and the public.

Assist with permitting, compliance, and regulatory documentation.

Participate in capital improvement planning and budgeting.

QUALIFICATIONS GUIDELINES

Knowledge of:
Theory, principles and practices of civil engineering design, construction and maintenance, particularly related to water and wastewater systems; engineering and surveying mathematics; strength, properties and uses of construction materials; computer engineering applications, including computer-aided drafting/design, hydraulic modeling; construction practices for wet utilities, including pipe and reservoir construction, placement of concrete and reinforcing steel; basic design standards for construction projects; principles, practices and materials used in civil and structural engineering and land surveying, including grading, drainage and roadway design; methods and techniques of engineering plan review and analysis; project and/or construction management and contract negotiation and administration principles and techniques; principles and practices of customer service and techniques for effectively representing the District in contacts with governmental agencies, community groups, various business, professional, educational and regulatory organizations, property owners, developers, contractors and the public; safe working practices and regulations; office procedures, methods and equipment including computers and applicable software applications such as spreadsheets and databases; principles of business letter writing and basic report preparation.

Ability to:
Prepare plans and specifications and review bid documents; accurately review and prepare routine to semi-routine engineering drawings, plans and cost estimates; read civil engineering blueprints, specifications and interpret them accurately; apply engineering principles and techniques to evaluate and solve civil and hydraulic engineering problems of varying difficulty; make or check engineering computations quickly and accurately; prepare clear, concise and accurate reports, maps and correspondence; operate office equipment including computers and supporting office computer applications; communicate clearly and concisely, both orally and in writing; establish and maintain effective working relationships with those contacted in the course of work; experience with AutoCAD, GIS, asset management, and water and wastewater modeling is highly desirable.

Education, Experience, and Required Licenses and Certifications

Education: Equivalent to a Bachelor of Science Degree from an accredited college or university in Civil Engineering, or a closely related field.

Experience:
Engineer I: One to three years of practical work experience. Combination of office and field experience preferred.

Engineer II: Three to five years of professional and varied engineering experience involving the design and

construction of water, wastewater, water reclamation, or public works projects.

Possession of an Engineering-In-Training (EIT) Certificate in the State of California and one year (full-time equivalent) of professional experience in civil engineering or an equivalent combination of education and experience sufficient to successfully perform the essential duties of the job such as those listed above may be substituted for the Education and Experience requirements.

Certification Requirements:
Engineer II: California EIT registration desired; actively pursuing a California PE license preferred.

PHYSICAL DEMANDS AND WORK ENVIRONMENT

The physical demands and work environment described here are representative of those that must be met by an incumbent to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Physical Demands: While performing the duties of this class, employees are regularly required to walk, stand and sit; talk and hear, both in person and by telephone; use repetitive motion for keyboard use and writing; frequently grasp, reach/work overhead, hold and reach; sit for long periods of time; frequently walk, stand, squat, twist and bend; balance, stoop, kneel, crouch and crawl; occasionally climb stairs and ladders; occasionally lift and carry up to 25 pounds, occasionally lift and carry up to 60 pounds with assistance; employees may be required to operate equipment, machinery, controls and tools; perform manual labor; constantly use overall color vision plus hand, eye and feet coordination; use office equipment including computers, telephones, calculators, copiers, and scanners.

Mental Demands: Employees should possess the ability to speak, read, and write English, in addition to exercising math and computer aptitude as required. Employees work under pressure with frequent interruptions while communicating and interacting with a variety of District personnel, the public, and others encountered in the course of work. The ability to interpret data, analyze and solve complex problems, explain, and apply related rules, regulations, policies and procedures; work on multiple concurrent assignments, often within tight timeframes using good business judgment.

Work Environment: Employees in this position may be required to work in both an office and outside environment. Employees regularly work in a temperature-controlled office environment subject to typical office noise and settings. The employee will occasionally work outside with exposure to various weather conditions. Employees may work in confined spaces and may be exposed to fumes, vapors, dust, sewage, toxic, or caustic chemicals. Employees may work in areas with poisonous plants and/or venomous or threatening animals or insects. Incumbents are expected to use principles of effective safety practices including the use of personal protective equipment in a proper and safe manner, use of preventable personal ergonomic techniques, and maintaining safe personal and common workspaces.

POSITION DESCRIPTION APPROVED:

General Manager

4/16/2026
Date