JUNIOR ENGINEER

This class description is only intended to present a summary of the range of duties and responsibilities associated with the positions. Descriptions <u>may not include all</u> duties performed by individuals within the class. In addition, descriptions outline the minimum qualifications necessary for entry into the class and do not necessarily convey the qualifications of incumbents within the position.

DEFINITION

Under direction, performs a variety of professional engineering services for District operations and customers ranging from simple water pressure calculations to system distribution design; responsibilities include master planning and designing water transmission and distribution facilities and sewage collection, treatment and disposal facilities; and performs other work as required.

DISTINGUISHING CHARACTERISTICS

The **Junior Engineer** performs a variety of entry-level technical engineering work under close supervision, including the design and construction of District water and sewer systems and facilities. The position encompasses less complex office and field engineering when compared to that of the Senior Associate and Assistant Engineer positions. The position has a moderate level of contact with the professional staff of the District, other governmental agencies, general public, developers, private professionals and contractors.

SUPERVISION RECEIVED/EXERCISED

Receives direct supervision from the Senior Engineer and general direction from the Associate Engineer and Assistant Engineer. The **Junior Engineer** provides consultation, and collaborates with Engineering Technicians, Engineering Service Representatives, Engineering Assistants, Operations/Maintenance staff, Construction/Maintenance staff, and office clerical/secretarial support staff.

ESSENTIAL DUTIES (include but are not limited to the following):

Performs detailed design of water and sewer facilities including drafting and computer aided design (CAD) work preparation of detailed construction estimates, material requisitions, and master plans of water and sewer facilities; inspects and/or supervises construction project work as required; prepares cost and budgetary estimates on projects; tracks costs and budgets of assigned projects; responds to and follows through on customer service calls; drafts new standards and specifications as required; conducts reviews and responds to engineering studies, including California Environmental Quality Act (CEQA) and National Environmental Protection Act (NEPA) reports; prepares material and construction contract packages and proposals, prepares Request For Proposals (RFP's); conducts water supply and sewage collection/treatment/disposal feasibility studies and master planning; and participates in a variety of professional committees.

QUALIFICATIONS (The following minimum qualifications are necessary for entry into the class):

Education/Experience

Sufficient education as an entry-level engineer to perform the duties of a **Junior Engineer**. No previous job-related experience is required. A typical way of obtaining the required qualifications is to possess the equivalent of a Bachelor's degree in civil or mechanical engineering from an accredited college or university, or a California Engineer-in-Training (EIT) certificate.

Approved by	ABW
Date	07/14/2022

Knowledge/Skill/Ability

Knowledge of: principles, methods, materials and equipment used in engineering design, drafting, and inspecting; hydraulics and/or hydrology, water and sewer facilities including transmission and distribution systems, storage tanks, pump stations, treatment plants and facilities, and engineering alternatives to traditional capital facilities; industry construction methods and materials; computer operations, software, and programs that assist in engineering work; District policies, procedures and issues; general understanding and knowledge of City, County, and State codes and ordinances.

Ability to: provide critical thinking to assigned projects; apply general engineering principles to the solution of specific engineering problems; use job-related computer software; write memos, letters and technical reports which are clear and concise; communicate effectively with technical and non-technical persons; and remain available in the event of an emergency.

License/Certificate

Possession of a valid Class C California driver's license. 5% additional salary with Professional Engineer registration.

WORKING CONDITIONS/PHYSICAL REQUIREMENTS

Position requires prolonged sitting, standing, walking, reaching, twisting, turning, kneeling, bending, squatting, and stooping in the performance of daily activities. The position also requires grasping, repetitive hand movement, and fine coordination in preparing and reviewing construction plans, statistical reports and data, and using a computer keyboard. Additionally, the position requires near, far, and color vision in reading reports, reviewing plans and blueprints, and using the computer. When visiting construction sites or existing District facilities the position will require walking on uneven and slippery surfaces, climbing ladders or stairwells, exposure to all weather conditions, dust and pollen, and potential mechanical and heavy equipment hazards.

OTHER REQUIREMENTS

Per California Government Code, Title 1, Division 4, Chapter 8, Section 3100, "all public employees are hereby declared to be disaster service workers subject to such disaster service activities as may be assigned to them by their superiors or by law."

07/2022