



Job Classification:	Engineering Technician I / II / Senior
Representation:	SEIU Local 1021 Union
Wage Schedule Range:	16 / 19 / 22
FLSA:	Non-Exempt
Effective Date:	July 2006 – Senior only, July 2015 – I / II only
Revision Date:	February 2018

Classification specifications, i.e. Job Descriptions are intended to present a descriptive summary of the range of duties and responsibilities performed by an incumbent in the classification. Furthermore, specifications are not intended to reflect all duties and responsibilities of an incumbent in the classification.

Summary

Under direct and/or general supervision this classification participates in supporting Engineering Department activities related to the planning, bidding, construction, installation, maintenance, inspection, and upgrade activities of the District’s treatment and water distribution and wastewater collection systems; coordinating the activities of the department with those of other departments, particularly Operations and Customer Service.

Engineering Technician I is skilled in computer-aided-drafting (CAD), water/wastewater system modeling software, use of GIS/GPS software and devices but has less direct design and other project experience than the Level II Technician.

Engineering Technician II has familiarity with the design and construction process and is familiar with District policies standards so as to move forward on assignments with greater independence.

Engineering Technician Senior has even greater familiarity with the District’s technical engineering support work in the areas of service applications, plan reviews, drafting activities, department information technology, and right-of-way.

Supervision Received and Exercised

Receives direct supervision from the District Engineer. Incumbents at level I and II may receive supervision and/or direction from the Senior Engineering Technician and Civil Engineer in specific areas, tasks, or projects. Incumbents classified at a senior level may act as lead worker and direct level I and II incumbents in specific areas or projects.

Essential duties - *The following duties are typical for this position. Depending upon the assignment, the employee may not perform all of the listed duties and/or may be required to perform additional or different duties from those set forth below to address District needs and changing business practices. The omission of specific statements of duties does not exclude the position if the work is similar, related or a logical assignment to the class.*

- Performs design and drafting duties in connection with water and sewer lines, laterals

and other projects including designing pipelines for residential and commercial developments, extensions, and relocations to District standards.

- Prepares, reviews, and processes a variety of base maps, construction drawings, as-built drawings, pipeline designs, specifications and cost estimates, and related engineering projects.
- Updates, revises, and maintains base and system maps and pipeline construction drawings; updates service area maps adding new boundaries and subdivisions, underground services, easements, fire services and related information; prepares plan and profile drawings.
- Assists in reviewing and processing land use or service applications for conformity with established regulations; provides information on requirements and processing to others; coordinates inter-department communications related to assignments.
- Reads and interprets plans and specifications, legal descriptions, contracts, regulations, standards documents maps, and a wide variety of other information.
- Prepares illustrations, signs, charts, graphs, pamphlets, and similar materials for the Department, District management, and the Board.
- Assists other Department staff in the preparation of specifications, plans, estimates and reports related to a variety of District construction, maintenance and upgrade projects.
- Assists in implementation of geographical information systems (GIS) and related programs for the location of installed components of the District/s water distribution and wastewater collection systems.
- Assists with and/or conducts field/office meetings as necessary to coordinate and provide technical support to staff, customers, consultants, surveyors, environmental professionals, contractors, industry representative, inspectors, and agency representatives.
- Attend and participate in seminars, workshops, and/or training programs to continue to develop technical skills in AutoCAD, Autodesk, GIS, GPS, Water and Sewer System Modeling Software, Microsoft Office Project, pumps, hydraulics, water balances, permits, and other fundamental engineering calculations and procedures as needed. May require out of town and/or overnight travel.
- Maintains accurate records and files including engineering files including plans, studies, inspections, surveys, maps and other data related to engineering projects.
- Performs technical field, office and computer-aided studies; verifies conditions and measures in the field; evaluates data collected makes recommendation to engineering staff and prepares periodic and special reports based on findings.
- Makes engineering calculations related to field and office work.
- Prepares cost-to-serve estimates upon request.
- Assists Customer Service with engineering-related requests, providing counter service direct to customers when needed.
- Scans records into system database(s); files; maintains logs; reproduces/reprints documents upon request.

- Establish and maintain an effective and cooperative working relationship with coworkers through knowledge of work, personal and professional conduct, and good judgment.
- Regular attendance and adherence to prescribed work schedule to conduct job responsibilities.
- Perform related duties as assigned or required for the ongoing operation of the District's business.

Qualifications - Any combination of training and experience that would provide the required knowledge, skills and abilities is qualifying.

Knowledge of:

- Basic construction management and inspection principles, procedures and practices.
- Principles, methods and techniques of design, manual and computer drafting and mapping.
- Computer user applications as applied to the solution of engineering problems, such as Geographical Information Systems, AutoCAD, water and sewer modeling, word processing, spreadsheet and database applications.
- Technical engineering mathematics.
- Record keeping principles and practices.
- Technical report writing practices and procedures.
- Principles and practices of effective customer service.
- Microsoft Office Suite programs for word processing and spreadsheets.
- Standard business practices such as letter writing, report writing, preparing informational materials in visual formats.
- English language usage, spelling, grammar, and punctuation.

For the Senior Engineering Technician:

- Basic design and maintenance practices of underground sewer lines, pump stations and related infrastructure.
- Techniques for providing a high level of customer service to the public, representatives of other agencies and District staff, in person and over the telephone

Ability to:

- Read and interpret engineering plans and specifications.
- Calculate figures and amounts such as discounts, interest, area, circumference, and volume; applying concepts of basic algebra and geometry.
- Use engineering drafting, surveying, and specialized electronic GPS and GIS instruments.
- Make accurate engineering computations and drawings.
- Make and record accurate field engineering observations.
- Interpret and apply laws, regulations, local ordinances, and District policy and procedures.
- Seek out appropriate assistance in solving practical problems that deal with a variety of concrete variables.

- Maintain accurate records and files.
- Knowledge of laws, regulations, local regulations and ordinances, and District policies and standards relating to the work being performed.
- Communicate clearly and concisely both orally and in writing with District staff, co-workers, consultants and the public.
- Prepare clear and concise reports, correspondence, specifications and other written materials.
- Efficiently use computer programs with sufficient speed and accuracy to perform assigned work; intermediate to advanced skills in Microsoft Office programs.
- Operate a computer for the effective operation of the Department including word processing, database, spreadsheet, presentations, e-mail, and internet.
- Professionally and tactfully provide customer service to the public and others in person.
- Use initiative and independent judgment within established procedural guidelines.
- Adapt to changing technologies and learn functionality of new equipment and systems.
- Plan, coordinate, prioritize and organize multiple work tasks to meet deadlines with accuracy, thoroughness, and attention to detail, sometimes with little supervision.
- Work independently and prioritize multiple tasks often under time constraints and with limited supervision.
- Read, understand and carry out written and oral directions in a clear, concise, and consistent manner.
- Operate a variety of automated office machines typical of a work environment such as a multi-function printer/copier/scanner machine, fax machine, laminator, etc.
- Communicate clearly and concisely both orally and in writing with District staff, co-workers, consultants and the public in one-to-one and group settings.

For the Senior Engineering Technician:

- Interpret a variety of instructions furnished in written, oral, diagram, or schedule form.
- Independently perform technical functions related to water and wastewater facility planning, design, and construction.
- Solve practical problems, dealing with a variety of concrete variables.
- Effectively present information and/or responding to questions from managers, customers, and the general public.
- Effectively oversee work, projects, and personnel as assigned.

Education and experience: *Any combination of education and experience which would likely provide the necessary knowledge and abilities is qualifying:*

Engineering Technician I:

- An Associate's degree from an accredited college with coursework in engineering, technical, or related field.
- Training in and experience with software related to the work required including computer aided drafting and spreadsheet software at a minimum.

- A minimum of five (5) years of experience performing similar drafting and engineering support duties-
- Experience in the water/wastewater industry relating to the design and installation of underground utilities is strongly preferred.

Engineering Technician II:

- An Associate's degree from an accredited college with coursework in engineering, technical, or related field.
- Training in and experience with software related to the work required including computer aided drafting and spreadsheet software at a minimum.
- A minimum of seven (7) years of experience that has provided knowledge of and experience in such areas as engineering drafting, surveying, map checking, and basic engineering project planning, design, and construction related to underground utilities is required.
- At least two (2) full years at the Engineering Technician I level.
- Experience in the water/wastewater industry relating to the design and installation of underground utilities is strongly preferred.

Engineering Technician Senior:

- An Associate's degree from an accredited college with coursework in engineering, technical, or construction related field.
- Ten (10) years of minimum experience that has provided knowledge of and experience in such areas as engineering drafting, surveying, map checking, basic engineering, project planning, design, and construction related to underground utilities is required.
- At least three (3) years at the Engineering Technician II level.
- In depth knowledge of engineering design of water and wastewater systems for a public agency.

A Distribution, Collection, Water Treatment, or Wastewater Treatment certifications are desirable for all levels.

Physical Requirements

While performing the duties of this job, the employee is regularly required to sit at desk and in meetings for long periods of time, on a continuous basis; intermittently twist to reach equipment surrounding desk; perform simple grasping and fine manipulation; reach with hands and arms; use a telephone or other electronic communication devices; communicate orally and through written means; use standard office equipment such as computers, copiers, and FAX machines; write or use a keyboard to perform assigned design and drafting duties; bend, squat, climb, kneel and twist while checking equipment or performing field work; stand and/or walk over both even and uneven ground; occasionally climb stairs, stoop, kneel, crouch, or walk

and/or stand on slippery surfaces; occasionally lift and/or move up to 25 pounds; hearing and vision within normal ranges with or without correction.

Work Environment

Work is generally carried out in a typical office setting with frequent field visits requiring the operation of a motor vehicle; sometimes traversing uneven terrain; and being exposed to inclement weather. While performing the duties of this job, the working conditions are largely those of a typical office environment, with temperatures occasionally too warm or too cold, moderate noise levels and under lighting conditions typical of an office. However, visits to the field may be required where the employee may be exposed to weather extremes of heat and cold (including snow), mud, allergens, dust, high level of noise, fumes or airborne particles, and toxic or caustic chemicals.

Additional Requirements

- 18 years of age.
- Valid California driver's license issued by the California Department of Motor Vehicles.
- Eligible to work in the United States.