



Job Description

Please note this job description is not designed to cover or contain a comprehensive listing of activities, duties or responsibilities that are required of the employee for this job.

Job title	Senior Mapping Technician
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GENERAL PURPOSE

Under direction, performs a variety of complex and difficult computer workstation operations to maintain and produce accurate land base and/or facilities maps and data for the District; maintains as-built drawings, creates annexation exhibit maps, and inputs new land and facilities into the Geographic Information System (GIS) and databases; provides technical supervision over subordinate technicians; and performs related duties, as assigned.

DISTINGUISHING CHARACTERISTICS

This is the advanced-level classification in the Mapping Technician series responsible for performing the most complex work assigned to the series. Incumbents regularly work on tasks which are varied and complex, requiring considerable discretion and independent judgment. Positions in the classification rely on experience and judgment to perform assigned duties. Assignments are given with general guidelines and incumbents are responsible for establishing objectives, timelines and methods to complete assignments. Work is typically reviewed upon completion for soundness, appropriateness, and conformity to policy and requirements.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from the Mapping Manager. Exercises technical and functional direction over and provides training to lower-level staff.

TYPICAL DUTIES AND RESPONSIBILITIES

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.

- Plans, organizes, assigns, supervises, and reviews the work of plan checking staff performing GIS and Computer Aided Design and Drafting (CADD) duties, emphasizing water/wastewater facilities mapping or land base data maintenance; trains staff in work procedures; assists in the evaluation of employee performance.
- Oversees and performs the more complex and difficult mapping technician duties.

- Enters new land and facility plans into the GIS, including both graphics and database attributes; updates plan and profile drawings with new as-built data.
- Provides District departments/end users with accurate and current standard and specialty map products and reports relating to the District's water, sewer and recycled water facilities using GIS and CADD applications.
- Creates and edits scripts and application code for bulk data manipulation and map customization.
- Receives, verifies, plots and inputs new and as-built source documents submitted to the division.
- Converts GIS layers for display in multiple format/media and creates files to reflect acreage of District owned properties; records new frontages and service orders summaries into the program.
- Inputs new District owned properties, graphics, and data attributes into GIS system; inputs new easements for water, sewer, recycled water and access easements; updates the GIS data for water pressure zones and updates closed and open valves.
- Assists, internal departments and outside consultants in resolving hardware, software, plotting, and data sharing issues; provides assistance to mapping technicians to resolve GIS and CADD software applications and mapping tools issues.
- Provides information to inhouse and outside customer requests regarding facility availability and provides maps of existing facilities, answers questions regarding depth of lines, and help customers interpret plan and profile drawings.
- Creates annexation board exhibit maps, and large-scale maps created for new annexations to the District and distributes to impacted departments.
- Observes and complies with all District and mandated safety rules, regulations, and protocols.
- Performs related duties as assigned.

REQUIRED QUALIFICATIONS

Knowledge of:

- Principles of providing functional direction and training.
- Terminology, methods, practices, techniques and nomenclature of civil, mechanical and/or electrical engineering drafting.
- Methods and techniques of mapping infrastructure including services and attributes in multiple systems and/or databases.
- Operational characteristics of mapping systems and associated databases.
- Principles and concepts on the use of GIS for mapping purposes.
- Methods and techniques of manipulating GIS data to display required data.

- Drafting, mapping and engineering terminology and practices.
- Algebra, geometry and trigonometry as applied to mapping processes.
- District files and locations and the means for retrieving information.
- District and mandated safety rules, regulations, and protocols.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.

Ability to:

- Plan, organize, and coordinate the work of assigned staff.
- Effectively provide staff leadership and work direction.
- Read and interpret field notes and engineering and construction drawings.
- Perform basic engineering computations.
- Use technology to map a diverse range of District infrastructure, services and attributes.
- Manage multiple layers of data to create desired data and graphics.
- Prepare comprehensive maps, plans and records.
- Perform detailed work thoroughly, neatly, accurately and efficiently.
- Follow written and oral instructions.
- Use tact, initiative, prudence, and independent judgment within general policy, procedural, and legal guidelines.
- Understand, interpret, and apply all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.
- Independently organize work, set priorities, meet critical deadlines, and follow-up on assignments.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Experience:

Any combination of experience and education that provides the required knowledge and abilities is qualifying, along with the specific licenses/certifications as outlined below:

- Four (4) years of progressively responsible experience performing subprofessional, technical civil engineering work, including two (2) years of GIS and CADD software experience.

Education:

- Equivalent to completion of the twelfth (12th) grade, supplemented by courses in mechanical drawing, engineering drafting and computer-assisted drafting or GIS; and four years of experience performing sub-professional, technical civil engineering work, including operating a personal computer using GIS and CAD software

Licenses/Certifications:

- A valid California driver's license and the ability to maintain insurability under the District's Vehicle Insurance Policy.
- *Certification in the application of GIS concepts and technology from a nationally recognized organization (follow on from Mapping Technician I/II as a desirable certification).*

PHYSICAL DEMANDS

The physical demands described here are representative of those that must be met by employees to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer; vision to read printed materials, a computer screen, and to operate a motor vehicle and visit various District sites; and hearing and speech to communicate in person and over the telephone. This is primarily a sedentary office classification although standing in work areas and walking between work areas may be required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects up to 25 pounds.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Employees work in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.

Eastern Municipal Water District
Job Title: Senior Mapping Technician
Last Update: March 2020

This job description has been reviewed and approved by all levels of management in cooperation with the union (if applicable):

Approved by:	<i>Board of Directors</i>
Date adopted:	<i>March 29, 2020</i>
Date modified:	
FLSA determination:	<i>Non-Exempt</i>

Job Description Acknowledgment

I have received, reviewed and fully understand the job description for Senior Mapping Technician. I further understand that I am responsible for the satisfactory execution of the essential functions described therein, under any and all conditions as described.

Employee Name (print): _____ *Date:* _____

Employee Number: _____

Employee Signature: _____