



San Juan Water District

9935 Auburn-Folsom Road
Granite Bay, California 95746
(916) 791-0115
www.sjwd.org

Engineering Intern Position Description

Status: Non-Exempt, Temporary/Seasonal
Supervisor: Engineering Services Manager
Effective Date: September 1, 2007

Supervision Received and Exercised

Receives immediate supervision from the Engineering Services Manager and receives technical and functional supervision from the Engineering Technician III and the Construction Inspector II. Does not provide supervision to others.

Primary Function

To perform technical office and field engineering duties related to CIP design support, CAD drafting, surveying, mapping, and maintaining historical data, maps and technical drawings.

Essential Duties - *Duties may include, but are not limited to, the following:*

- Perform civil drafting of pipeline and other water facilities using pen, pencil, and AutoCAD; assist with revisions of District subdivision and water system maps using AutoCAD.
- Assist with field surveying.
- Coordinate with key staff in various departments to provide technical support, perform engineering calculations, data analysis, update data and maps, and provide general mapping expertise.
- GIS maintenance assistance responsibilities including incorporating new electronic data into existing map layers, making data corrections, performing quality control, and developing and maintaining associated base map control, and distribute GIS data to end users
- Update water facility maps using software as necessary to include as-built information.
- Print, assemble and distribute facility maps and map book updates.
- Update and maintain geodatabase indexes.
- Assist with engineering design and planning projects.
- Enter hydrant, valve and service locations into GIS mapping system using software.
- Operate Computer Aided Drafting (CAD) workstation and peripherals.
- Produce various CAD maps and drawings to satisfy end user requirements.
- Assist with engineering as-built and related record document archiving.
- Build and maintain positive working relationships with co-workers, other District employees and the public using principles of good customer service.
- Perform related duties as assigned.

Minimum Qualifications

Knowledge of:

- Basic knowledge of engineering mathematics, and engineering principles.
- Basic principles, methods and techniques of drafting and surveying.
- Familiarity with AutoCAD software and MS Office Suite.
- Principles and practices of customer service.
- Safe work practices.

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- Modern office procedures, methods and computer equipment.
- Technical writing skills; and good communication.

Ability to:

- Exercise some discretion to plan and carry out activities.
- On a continuous basis, know and understand operations, and observe safety rules; intermittently analyze problems; and identify and locate equipment.
- Intermittently, sit while studying or preparing reports; bend, squat, climb, kneel and twist when performing field engineering duties; perform simple and power grasping, pushing, pulling, and fine manipulation.
- Efficiently use computer and applicable software.
- Operate engineering equipment.
- Perform drafting and prepare technical reports.
- Prepare drawings from notes and sketches.
- Initiate and maintain effective safety practices.
- Establish and maintain effective working relations with those contacted in the course of work.
- Communicate clearly and concisely, both orally and in writing.

Experience and Education:

Any combination of experience and training that would provide the required knowledge and abilities is qualifying. A typical way to obtain the required knowledge and abilities would be:

Education:

Equivalent to graduation from high school supplemented by two years of course work from an accredited college with major course work in engineering or related field.

Experience:

None required.

License or Certificate:

Possession of, or the ability to obtain and maintain, a California Driver's License with a satisfactory driving record. Individuals who do not meet this requirement due to a physical disability will be considered on a case-by-case basis.

Physical Capabilities:

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

| <i>Physical Requirements</i> | <i>Rarely (0-12%)</i> | <i>Occasionally (12-33%)</i> | <i>Frequently (34-66%)</i> | <i>Regularly (67-100%)</i> |
|------------------------------------|---|----------------------------------|--------------------------------|--------------------------------|
| Seeing | | | | √ |
| Hearing | | | | √ |
| Standing/Walking | | √ | | |
| Climbing/Stooping/Kneeling | | √ | | |
| Lifting/Pulling/Pushing | √ | | | |
| Approximate Maximum Weight to Lift | 40 Pounds | | | |
| Fingering/Grasping/Feeling | | | | √ |
| Describe Working Conditions | 25 Percent Outdoors, 75 Percent Indoors | | | |