



**Department:** Public Works  
**Prepared By:** Jeff Tedder

**FLSA Status:** Non Exempt  
**Prepared Date:** Dec. 28, 2016

**JOB TITLE:** Engineering Technician I/II

**SUMMARY:**

Under immediate supervision (Engineering Technician I) or general supervision (Engineering Technician II), performs paraprofessional engineering office and field work involving civil engineering, surveying, drafting, data collection, and other related activities, including field inspection of Public Works projects.

**ESSENTIAL DUTIES AND RESPONSIBILITIES LISTED BY PRIORITY/FREQUENCY:**

- Use AutoCAD Civil 3D to prepare complex engineering drawings for Public Works capital and maintenance construction projects, including water, wastewater, streets, storm drains, parks, and other related projects; prepare maps, plans, descriptions, exhibits, record maps, or survey plats.
- Use ArcGIS to develop and maintain the City's GIS system, including utilities, boundaries and parcels, transportation, base mapping, land use, zoning, orthoimagery, and topography; prepare data sets, maps, and other media for distribution, presentation, or other use.
- Check improvement plans for compliance with City standards, design criteria, or special conditions, including the City's RWQCB Municipal Separate Storm Sewer System (MS4) permit.
- Perform construction inspection on City projects, subdivisions, and encroachments into the public right-of-way to ensure compliance with design criteria, approved improvement plans, and City construction standards.
- Research project design requirements, including coordination with other departments, agencies, and utility companies.
- Prepare preliminary project cost and time estimates.
- Make and check computations and record field data.
- Prepare engineering field reports and related documents.
- Answer inquiries from developers, engineers, realtors, or the general public about Public Works-related items.
- Create, organize, and maintain mapping and filing systems.
- Perform related duties, as required.

**ABILITY TO:**

- Learn and understand City Public Works and Engineering policies and procedures.



- Prepare accurate plans, specifications, cost estimates, and technical engineering reports.
- Perform engineering design computations.
- Check, design, and prepare engineering plans and studies.
- Interpret complex construction plans and specifications.
- Use and care for engineering and drafting instruments and equipment.
- Operate general office equipment including computers and supporting software.
- Learn pertinent federal, state, and local codes, laws, and regulations.
- Understand and follow oral and written instructions.
- Communicate clearly and concisely, both orally and in writing.
- Establish and maintain effective working relationships with those contacted in the course of work.

#### **MINIMUM QUALIFICATIONS, EDUCATION, AND EXPERIENCE:**

To perform the job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skills and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- **Engineering Technician I:**
  - High school diploma or general education degree (GED); one year related experience and/or training; or equivalent combination of education and experience.
  - Two years of increasingly responsible engineering or drafting experience.
- **Engineering Technician II:**
  - High school diploma or general education degree (GED); one year related experience and/or training; or equivalent combination of education and experience.
  - Two years of responsible municipal engineering experience equivalent to an Engineering Technician I in the City of Shasta Lake.

#### **PREFERRED QUALIFICATIONS AND EXPERIENCE:**

- Knowledge of Civil engineering principles, practices, and methods applicable to office and field work involving the use of civil engineering software and associated equipment in the design, construction, inspection, and maintenance of City Public Works projects.
- Knowledge of drafting and surveying principles, techniques, practices, equipment, and computer programs.
- Knowledge of safe work practices and methods.
- Knowledge of mathematical concepts applicable to engineering.
- Knowledge of construction practices and methods.



- Knowledge of office procedures, methods, and equipment including computers and supporting software.
- Knowledge of standard drafting tools and equipment.
- Ability to operate a computer.
- Ability to operate Autodesk AutoCAD software.
- Ability to operate ESRI ArcGIS software.
- Ability to work with Microsoft Office and general office-environment software.
- General knowledge of the geography of the City.
- Perform math calculations quickly and accurately. Understand and follow oral and written instructions.
- Certification as a Water Distribution Operator (desirable).
- Certification as a Qualified SWPPP Developer (desirable).

#### **CERTIFICATES, LICENSES, REGISTRATIONS:**

- Valid California Class C driver's license.

Every individual holding this position must possess and maintain all certificates, licenses and registrations required by law at the current time or in the future.

#### **PHYSICAL DEMANDS:**

- Sitting, standing, stooping, walking, climbing, grasping, lifting, crouching, crawling, manual dexterity, clear speech, clear hearing, clear seeing and driving.
- Required to climb or balance and perform work which involves lifting, pushing and/or pulling of objects which approximate 50 pounds.
- 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 the essential functions.

#### **WORK ENVIRONMENT:**

- Exposed to extreme outside weather conditions.
- Occasionally exposed to wet and/or unsanitary conditions.
- Works with various outside conditions that may include animals, insects, poison oak, toxins, chemicals and fire.
- Occasionally exposed to moving mechanical parts, fumes or airborne particles, and toxic or caustic chemicals.
- Noise level in the work environment is usually moderate.
- The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable



accommodations may be made to enable individuals with disabilities to perform the essential functions.