



respect - Communication - Integrity - Teamwork - family

City of Klamath Falls, Oregon  
Job Description

ENGINEERING DESIGN SPECIALIST/  
GIS COORDINATOR

---

**DEPARTMENT/DIVISION:**Public Works

**GRADE:** 7

**GROUP:** AFSCME

**FLSA STATUS:** Non-Exempt

**EFFECTIVE DATE:** July 1, 2011

---

**SUMMARY**

Under the general administrative and technical direction of the City Engineer, the individual selected for this position will perform technical level duties in support of the City's engineering and capital improvement projects to provide information and assistance to contractors, developers, engineers and the general public for the City's engineering services and activities and to perform a variety of technical tasks relative to assigned area of responsibility. This position performs complex technical and policy determinations towards Capital Improvement and Maintenance Project Management including preliminary concept through final design layout, preparing specifications and creating CAD drawings for a variety of facility and infrastructure projects. This position is also responsible for technical work (PC work station) associated with the development and implementation of a comprehensive Geographic Information System(GIS) system for the City. This position also provides a variety of professional GIS development and technical coordination duties. Oversees planning, design and maintenance for GIS program data development, including collection and synthesis of data for public utilities. This position also assumes lead responsibility for the City regarding all CAD issues and retains the departmental responsibility for establishing, revising and modifying the City's Engineering Standards and specifications. Performs related duties as required.

**EXAMPLES OF DUTIES**

Duties may include but are not limited to the following:

Act in the lead capacity for CAD drawing generation and as bid package coordinator for preparing contract drawings and specifications.

Directly supports engineering staff in the timely execution and completion of complex design projects.

Act in a liaison capacity to ensure that consultant designs are complete and performed in accordance with City records management policies. Responsible for coordinating the internal technical quality assurance process for construction packages. Directly responsible for ensuring that all drawings submittals are performed according to the City's drafting and graphics standards.

Act in the lead capacity for field investigations, as-built documentation and placed quantity measurements related to facility modifications, new infrastructure construction and rehabilitation projects as required to produce finished Record Drawings.

Perform quantity take-offs and cost estimates as required.

Participates in the development of capital improvement planning as assigned including, but not limited to, the identification of infrastructure requirements, preparation of preliminary cost estimates/schedules and feasibility studies.

Directly responsible for the development and maintenance of City design standards manual including standard symbols, abbreviations, details, forms, etc.

Creates, maintains and updates engineering records and files as appropriate.

Provides lead direction to staff as Project Manager for assigned projects.

Coordinates with other City departments and regional GIS experts to better utilize the GIS data within the program.

Provides a variety of professional GIS development and technical coordination duties.

Oversees and develops analysis and evaluation of operational and maintenance procedures as they relate to the data collected.

Organizes, schedules and assigns work within the GIS program.

Prepares all necessary reports, presentation materials, and miscellaneous correspondence required for documentation and use of GIS and related systems.

Creates a variety of planimetric maps for use by departments throughout the City, using all available data from a variety of sources (ie. CAD, GIS, TIFF, PDF, JPG, BMP, Word, Excel).

Reviews and keeps current on changes within the GIS program arena.

Provides technical training and support for the City's GIS operation.

All other GIS related activities with the City.

Provides support and training for the GIS Centric Pavement Management System (PMS). Also, performs updates and maintenance to the PMS Database when necessary.

Serves as the division IT specialist. Providing initial troubleshooting, answering software related questions, software training and software purchase and maintenance.

### **SUPERVISORY RESPONSIBILITIES**

This is a non-supervisory position.

### **PRE-EMPLOYMENT**

Job offers for this position are contingent on the individual passing a pre-employment drug screen.

### **QUALIFICATION REQUIREMENTS**

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

#### **Education and/or Experience:**

Bachelor's Degree from an accredited college or university with emphasis in civil engineering, transportation engineering, drafting or GIS and two to five years of increasingly responsible experience in civil, structural, architectural, mechanical, electrical design and drafting and GIS or an equivalent combination of education and experience enabling the incumbent to perform the essential functions of the position. Demonstrated proficiency in AutoCAD Civil 3D; ARCGIS and digital imaging and mapping including digitizing information into a GIS.

#### **Desired:**

Experience in a municipal public works environment. Experience in construction inspection or construction management.

#### **License/Certifications:**

Valid Oregon Driver's License

### **KNOWLEDGE, SKILLS AND ABILITIES**

The requirements listed below are representative of the knowledge, skill and/or ability required.

Knowledge of:

Principles of engineering designing procedures; applicable statutes, regulations and codes; principles of foundation design; advanced knowledge of principles and practices of cartography and geography; word processing and spread sheet programs; technical specifications, public works contracts and construction techniques; operational and maintenance considerations in design; electronic drafting techniques and production; CAD drafting in the following disciplines (mechanical/electrical, civil/mechanical, structural/architectural, etc.); mathematical concepts such as hydraulics, basic principals of physics, fundamentals of plane and solid geometry and trigonometry. Knowledge of an ability to analyze and use GIS software applications and related CAD/database systems; computer programming techniques and a variety of languages related to GIS; basic principles and practices related to surveying, cartography automated geoprocessing analysis, mapping techniques, source evaluation, and accuracy verification procedures. This job requires the ability to provide technical guidance in the use of the City's GIS.

Skill in:

Communicating highly technical concepts to technical and non-technical staff in a personable and professional manner and to clearly write in a technical and non-technical format.

Ability to:

Translate design concepts into an accurate graphical representation suitable for construction contract bid solicitation; work on a number of projects simultaneously; read and interpret documents such as contract design specifications, statutes, regulations and building codes; interpret technical instructions in mathematical or diagram form; to write routine reports and correspondence; maintain and prepare records and reports; prioritize, organize and manage projects, staff and resources to meet time commitments and needs of end users; operate a variety of appliances and equipment; establish and maintain effective working relationships. Research documents necessary for the development and update of GIS database; evaluate the reliability of input data, read and interpret surveying documents, maps and blueprints; operate Trimble GPS Survey equipment for data collection and field verification.

**PHYSICAL DEMANDS**

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of the job.

While performing the duties of this job, the employee is frequently required to use hands to finger, handle, or feel objects, tools or controls. The employee frequently is required to reach with hands and arms. The employee is frequently required to stand, walk, sit, stoop, kneel, crouch or crawl; and talk or hear.

The employee must occasionally lift and/or move up to 25 pounds. Specific vision abilities required by this job include close vision and the ability to adjust focus.

## **WORK ENVIRONMENT**

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 qualified individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is typically in an office environment with minimal exposure to health and safety hazards. Occasionally the employee works in outside weather conditions and is occasionally exposed to wet and/or humid conditions.

The noise level in the work environment is usually quiet.

---

The City of Klamath Falls is an Equal Opportunity Employer. In compliance with the Americans with Disabilities Act, the City of Klamath Falls will provide reasonable accommodations to qualified individuals with disabilities and encourages both prospective and current employees to discuss potential accommodations with the employer.

