

**ENGINEERING TECHNICIAN,
GEOGRAPHIC INFORMATION SYSTEMS (GIS)**

I. Position Identification:

- A) Title: Engineering Technician, (GIS)
- B) Bargaining Unit: Yuba City Employees' Association
- C) Customary Work Hours: 8: 00 a. m. until 5: 00 p. m.
- D) Customary Work Days: Monday through Friday
- E) Reports To: Principal Engineer
- F) Directs The Work Of: None
- G) Educational and/or Experience Requirements:

Any relevant combination of education and experience that would demonstrate the knowledge and skills outlined below is qualifying. A typical way of gaining the skills is:

Education: Possession of Associates Degree in Engineering or Computer Science, or the equivalent is required.

Experience: At least one (1) year of recent, full-time experience as an Engineering Technician working with automated mapping and GIS systems to include ArcInfo and ArcView experience, or any combination of education and experience that provides equivalent knowledge, skills and abilities.

Licenses and/or Certificates Required:

Possession of a valid California Class C driver's license is required.

II. FLSA Status: Non Exempt

III. Position Summary:

Under general supervision, performs a number of technical civil engineering tasks including traffic projects and other field studies, utility design work for both maintenance and new construction, checks plans within scope of authority, completes mapping and GIS projects, creates and maintains maps and other geographic data by manual and automated means, creates and maintains the GIS database, evaluates GIS data and information, generates maps and reports as requested, and performs other related work as required.

IV. Essential Functions:

1. Creates and modifies topographical maps and engineering drawings of streets, utility placement, right-of-ways and other items using AutoCAD and GIS systems; obtains information involving lot line adjustments, parcel and subdivision maps which is then used to update existing City maps.
2. Performs data collection in the field; enters, reviews, and updates in database; compiles data and prepares reports.
3. Assists in preparing specifications for projects.
4. Performs staking work to identify the placement of underground utilities and other improvements prior to construction.
5. Provides customers with general and technical information within scope of authority.
6. Conducts traffic studies including vehicle speed measurements and vehicle counts.
7. Designs sewer, water, and drainage systems for both maintenance and new construction using AutoCAD and other equipment.
8. Performs plan checking for subdivisions and other new construction to ensure compliance with City standards.
9. Performs inspections for encroachment permits.
10. Develops and produces maps, reports and other graphic products using GIS, AutoCAD, and other computer programs.
11. Develops requirements, designs, and maintains databases associated with the GIS base mapping and subsequent map layers.
12. Converts AutoCAD files and other data into GIS layers and projects.
13. Assists other non-GIS staff members with use of GIS.
14. Performs geographic analysis using GIS.
15. Performs research to acquire and evaluate GIS data.
16. Responsible for carrying out the mission of the City and the Department and the adherence to the City's and Departmental organizational values.

V. Collateral Functions:

1. Serves as the Department's representative in the integration of Departmental work with other City Departments.

2. Responsible to ensure that information from public utilities and other sources is integrated into City drawings.
3. Provides information to Title Companies and the Sutter County Recorder's Office for Plat maps specifying easements and other data.
4. Provides input as to how GIS can help staff members meet their objective.
5. Assist in defining and providing GIS information to meet the needs of the public.

VI. Job Related and Essential Qualifications:

A. Knowledge of:

- Safe driving and work practices.
- Modern office methods and procedures.
- Principles, practices and applications of general engineering, surveying, geography, cartography and computer-aided mapping GIS systems.
- Technical drafting principles, database design principles, database management software, and engineering plans and specifications.
- Specialized engineering software such as AutoCAD and ESRI GIS software and environments and file management procedures.
- Department standards, techniques, and procedures.
- Safe work practices at construction sites.

B. Skill at:

- Respond quickly and effectively in difficult situations.
- Getting work accomplished through others.
- Coordinating multiple projects and meeting deadlines.
- Interpreting technical information and producing engineering drawings.
- Using computers and complex engineering software applications.
- Technical writing and making mathematical computations.

C. Ability to:

- Carry out policies of the City.

- Identify with management and City goals and objectives and understand and support City priorities and needs.
- Meet the physical, mental and environmental demands of the job.
- Accept the input of supervisors and co-workers as well as provide input and be a genuine team player.
- Establish and maintain cooperative working relationships with those contacted in the course of work.
- Prepare reports and efficiently maintain accurate records.
- Recognize, prioritize, and accomplish needed tasks.
- Evaluate alternative solutions and present recommendations.
- Work independently in the absence of supervision.
- Demonstrate initiative and exercise sound independent judgment.
- Maintain departmental records.
- Interact with the public effectively and courteously.
- Demonstrate continuing effectiveness in maintaining the knowledge and skills required of this position.
- Operate computer aided drafting and mapping software and peripheral devices such as printers, plotters, scanners and other standard office equipment.

VII. Physical Demands/Qualifications:

1. Requires the ability to sit for potentially long periods of time throughout the workday.
2. Working conditions in outside areas are subject to variations in temperature, and may include wind, rain, and other elements.
3. Manual dexterity and vision sufficient to operate computer systems for potentially long periods of time without experiencing abnormal hand, wrist or eye strain.
4. Hearing sufficient to understand conversations, both in person and on the telephone.
5. Requires ability to work safely outdoors in all weather.

6. Stand, climb, and walk for extended periods.
7. Work in confined spaces.
8. Manual dexterity sufficient to grasp, hold objects, and tools with full range of motion in wrists and arms.
9. Work on slippery and uneven surfaces.
10. Ability to drive a motor vehicle.
11. Reasonable accommodations will be made for some physical demands for otherwise qualified individuals who require and request such accommodations.

VIII. Non-Physical Demands/Qualifications:

Must be able to:

1. Communicate information clearly and effectively on a number of different levels, both verbal and written.
2. Operate under tight deadlines.
3. Make accurate engineering computations and drawings.
4. Be highly organized, detail oriented and possess the ability to prioritize a number of projects.
5. Possess a valid driver's license.

IX. Environmental Conditions:

1. Working conditions in the office are clean, well lit and free from extremes of temperature and humidity.
2. Working conditions in the field are subject to extreme variations in temperature, humidity and can include high wind and rain.

X. Other Duties and Requirements:

This class description lists the major duties and requirements of the job and is not all-inclusive. Not all duties are necessarily performed by each incumbent. Incumbents may be expected to perform job-related duties other than those contained in this document and may be required to have specific job-related knowledge and skills.