

## CLASS SPECIFICATION



**CLASS:** Senior GIS Technician  
**ALLOCATION:** Community Development and Services Agency  
**FLSA STATUS:** Non-Exempt  
**UNION AFFILIATION:** YCEA

**ESTABLISHED:** March 2025

### **JOB SUMMARY:**

Under general supervision, provides lead direction and technical assistance to assigned staff and/or project management; performs a variety of technical office and field work duties that require specialized knowledge related to the creation and maintenance of maps, tables, graphs, and other geographic source data with the use of enterprise GIS, permitting, and asset management systems; provides technical support and queried data to department staff, other County departments, outside agencies, consultants, contractors, developers, and the public; and performs related work as assigned.

### **CLASS CHARACTERISTICS:**

This position is the advanced journey lead/specialist level position that reports directly to the Public Works Director. This class is distinguished from GIS Technician in that the former has a higher level of responsibility, complexity of duties assigned, and independence of action taken. This class is further distinguished from the construction inspection series in that the former is primarily focused on and requires expertise in GIS mapping and data collection.

### **EXAMPLES OF DUTIES:**

#### **Essential:**

- Provide direction and guidance as a lead worker regarding data collection and GIS utilization; may review the work of technical staff assigned to a variety of GIS duties; assist supervisor with training program and identifying training needs; provide staff training in the use of and applications of GIS information.
- Perform accurate and timely updates to County GIS files and data management records related to streets, sewer, water, and storm systems, asset inventory, plats, parcels, right-of-ways, easements, and data layers.
- Perform quality control checks to integrity of GIS data and applications; review and resolve conflicts in data; evaluate currency, usefulness, and completeness of data.
- Create, compose, modify, and edit GIS spatial and attribute data, export data for a variety of special projects.
- Produce maps, tables, and graphs for internal and external use; determine and execute the appropriate sequence of data processing tasks; use established GIS and permitting systems to query data and produce documents.
- Update and maintain GIS databases according to department's policies and procedures; clean up data and make corrections in response to changes and additional data sets integrated into GIS.
- Provide a variety of ad hoc queried data to County departments and outside agencies; produce and provide maps, drawings, color graphics, charts, and graphs.
- Perform editing tasks such as constructing new features and editing attributes in a GIS; perform spatial operations with GIS tools to analyze and query data.
- Provide technical support related to software troubleshooting and recommend process improvements.
- Participate in planning special GIS mapping projects to assist with a variety of analysis and operational issues.
- Provide assistance to departments, outside agencies and the general public in obtaining information; research and compile materials and maps; produce digital copies of County data as requested; maintain maps and records.
- Serve as administrator for a variety of department software and database systems; set up permissions, add and delete users, configure modules, and provide training and technical assistance to users; create and edit webpages for the Department's website.
- Support the administration of programs within the Community Development and Services Agency, including but not limited to, Storm Water Pollution Prevention and Floodplain Management; conduct site inspections and review plans and permits.

- Provide information to the public, developers, engineers, surveyors, other departments, and external agencies associated with County procedures and regulations, which require the interpretation of policies and procedures related to plan requirements, property ownership and facility locations.
- Review a variety of plans and designs to ensure conformance with codes and regulations; review engineering drawings and specs to verify calculations, quantities, accuracy, and completeness.
- Prepare a variety of written materials, such as inspection reports and Notice of Violations.
- Prepare and check plots, maps, reports, exhibits, graphic displays and interpret plans, legal descriptions, and photos.
- Establish and maintain accurate files and records; develop and update permanent files for County retention.

**Important:**

- Comply with all County equipment and safety policies and procedures, and California Occupational Safety and Health Administration (CalOSHA) rules and regulations.
- Use specialized equipment to develop and produce copies of maps, drawings, and blueprints; use specialized surveying instruments and field measuring devices.
- Use standard office equipment in the course of the work; drive a personal or County-owned motor vehicle to attend meetings and visit work sites.

**EMPLOYMENT STANDARDS:**

**Knowledge of:**

- Principles and practices of cartography and engineering drafting including map projections and scales.
- Techniques used in Geographic Information Systems (GIS), including techniques for graphical representation, data input, geodatabases, and quality assurance control.
- Geographic Information System (GIS), Computer-Assisted Design (CAD), AutoCAD, ESRIbased ArcGIS suite of software, automated mapping applications, and other relevant software, programs and databases and their uses
- Terminology, methods, principles, practices, and techniques used in GIS and computer operating systems.
- Drafting methods and techniques.
- Cartographic design principles and practices are used to produce high quality maps.
- Principles of algebra, geometry, trigonometry statistics, and their applications.
- The County's Stormwater Management Program, SWPPPs.
- FEMA Flood Insurance Rate Maps, flood zones, elevation certificates.
- Relevant laws, codes, regulations, and ordinances.
- TrakiT, CDSA's land management and permitting program.
- The County's addressing system, and its interconnectivity with TrakiT.
- Safety principles, practices and equipment related to the work.

**Skill in:**

- Planning, organizing, directing, and reviewing the work of technical staff.
- Performing responsible technical duties in support of the County's GIS application and production of reports, maps, and graphics, including field work involving data collection, quality assurance and control, data loading and editing, and analysis
- Competently using relevant software, programs, and computer applications to import and export data.
- Reading, reviewing, and interpreting engineering drawings, maps, plans and specifications, legal descriptions, regulations, survey data, and technical documents.
- Gathering and compiling data and information and preparing accurate technical reports and documents.
- Performing accurate mathematical calculations.
- Communicating and working effectively with a variety of individuals, agencies, and organizations.
- Understanding and implementing the County's Stormwater Management Program.
- Operating computer systems to meet work unit needs including GIS, Autocad, and programs used to maintain online information.
- Activities pertaining to TrakiT; including administrative functions such as coordinating TrakiT

- configurations, issues, and resolutions.
- Maintaining complete and accurate records.
- Preparing accurate engineering plans, specifications, cost estimates and engineering reports.

**Ability to:**

- Assist in the design of geodatabases associated with the GIS base mapping and subsequent map layers.
- Lead and oversee work on assigned programs or tasks.
- Exercise independent judgement in developing and defining GIS and data collection standards.
- Research sources of geographic data and collect, interpret, and integrate cartographic data from different sources.
- Perform technical GIS work involving quality assurance and control, data loading, editing and analysis.
- Design and develop sequence-processing tasks and perform spatial analysis.
- Research sources of geographic data and collect, interpret, and integrate cartographic data from different sources to prepare maps and reports.
- Independently interpret maps; prepare maps accurately delineating feature locations and boundaries.
- Understand and implement the County's Stormwater Management Program, including use of Best Management Practices, performing water quality monitoring and inspections, and applying water quality enforcement actions.
- Work independently, but within established guidelines
- Listen carefully to what other people are saying, take time to understand the points being made, and ask questions as appropriate for clarification.
- Deal tactfully and effectively with the public, regulatory agencies and policy-making bodies, developers, engineering firms and contractors, and others contacted in the course of the work.
- Organize, plan and prioritize work, developing specific goals and plans to accomplish work in a timely manner as established by regulations and local policy.
- Pay attention in detail and be thorough in completing work tasks.
- Communicate clearly and concisely, both verbally and in writing.

**Physical Demands:** The physical demands and work environment described here are representative of those that must be met by an employee to successfully perform the essential function of the job, with or without accommodation. Prospective employees must complete a pre-employment medical exam (Occupational Group IV) which will measure the ability to:

- See well enough to read fine print and view a computer screen; speak and hear well enough to understand, respond, and communicate clearly in person and on the telephone; independent body mobility sufficient to stand, sit, walk, stoop and bend to access the work environment and a standard office environment; manual dexterity and sufficient use of hands, arms and shoulders to repetitively operate a keyboard and to write; and the ability to sit or walk for prolonged periods of time.
- Strength and stamina to walk for long periods of time and conduct field inspections and investigations.
- Perform physical activities that require considerable use of arms and legs, and moving your whole body, such as climbing, lifting, walking, stooping, kneeling, crouching, and crawling.
- Mobility to drive a motor vehicle to visit field sites.

Accommodation may be made for some of these physical demands for otherwise qualified individuals who require and request such accommodation.

**Work Environment:**

- Work is performed both in the office and in the field at various work sites.
- Position may work with exposure to heavy traffic, hazardous terrain, moving construction equipment, noise, chemicals, and various weather conditions (sometimes extreme).

**QUALIFICATIONS:**

The minimum and preferred requirements are listed below. While the following requirements outline the minimum qualifications, Human Resources reserves the right to select applicants for further consideration who demonstrate the best qualifications match for the job. Meeting the minimum qualifications does not guarantee further participation in selection procedures.

**Licenses and Certification:**

- The ability to obtain a valid California Class C driver's license within ten (10) days of employment; maintain throughout employment.

**Special Requirements:**

- Must successfully complete an extensive and thorough background investigation which may include Live Scan fingerprinting prior to hire.
- DMV printout prior to hire.
- May be required to file statements of economic interest with the Yuba County Clerk/Recorder.
- Will be required to perform disaster service activities pursuant to Government Code 3100-3109.

**Education and Experience:**

**MINIMUM:** Associate's Degree from an accredited college in an appropriate engineering, geography, geographic information systems discipline or related field and three years of technical GIS experience. Relevant experience may be substituted for education on a year-for-year basis.

**PREFERRED:** In addition to the minimum, additional years of experience as described above in a public works environment. Valid certification through CASQA as a Qualified SWPPP Developer (QSD).

**This class specification lists the major duties and requirements of the job. Incumbent may be expected to perform job-related duties other than those contained in this document.**

Dept Approval:  
Date:

Signature: \_\_\_\_\_

EEOC: C  
WC: 9410

Established: March 2025  
Revised:

Human Resources Approval: Analyst  
Date:

Signature: \_\_\_\_\_