

**City of San Rafael
Job Class Specification**

Job Title: Engineering Technician I/II

SUMMARY

Under general supervision, performs a variety of document research, Graphic Information Systems (GIS), drafting and computing work in a paraprofessional civil engineering capacity. Work involves application of document research, GIS, drafting skills, and knowledge primarily in the preparation of rough and finished engineering maps, drawings, plans, copies, and specifications, or in the conception and preparation of topographical plans and maps.

DISTINGUISHING CHARACTERISTICS:

Engineering Technician I is the entry to full working level of the classification series. Initially under close supervision, incumbents perform the least skilled and most repetitive tasks, while learning to use and apply their skills and knowledge. The extent of supervision depends on the abilities of the incumbent.

Engineering Technician II is the advanced working level of the series. At this level, incumbents perform more skilled tasks, work with greater independence on a regular basis. Incumbents at this level could be assigned work that would be typical of an entry level in the professional engineering as a portion of their regular duty assignment. These classifications are distinguished from the professional engineering job classes in that the emphasis of the total duty assignment is technical, paraprofessional work

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Performs responsible computer aided and technical drafting work; Graphic Information Systems.
- Research and drafts assessment maps, street, sewer, and water improvement maps, prepares sketches showing details or office standards.
- Draws to scale projects such as park and playground areas, community centers, tennis and basketball courts, and other recreational structures or facilities.
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- Secures information from applicable sources, books and file maps and notes, reduces and plots field notes on topography, location, and cross section surveys.
- Functions as a contract administrator on assigned capital improvement projects.
- Performs field survey work.
- Responds to inquiries from consultants, outside agencies and the general public regarding technical questions and related issues.
- Responds to requests for graphic displays from staff in other City departments.
- Works collaboratively with other technicians and staff implementing and maintaining the City's GIS system.
- Performs related duties as required.

KNOWLEDGE OF:

Level I:

- Basic knowledge of the terminology, methods, practices, and techniques of engineering, architectural or planning drafting, GIS systems and maintenance, and research of City infrastructure documentation.
- Drafting and design nomenclature and symbols.
- Knowledge of mathematics and trigonometry as applied drafting and planning.

Basic knowledge of software programs used in computer aided drafting.

Level II:

NOTE: Incumbents at Level II would typically have the knowledge, skills and abilities of Level I in addition to those listed for Level II.

- Considerable knowledge of the terminology, methods, practices, and techniques of engineering, architectural or planning drafting.
- Considerable knowledge of software programs used in computer aided drafting; engineering maps and records.
- Mathematics and trigonometry as applied to drafting and planning.
- Use and adjustment of transits and levels, and of land survey nomenclature and symbols.

ABILITY TO:

- Understand and following oral and written instructions.
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- Drafting instruments and computers.
- Use survey equipment and land survey nomenclature and symbols.
- Read and understand basic diagrams and maps.
- Make technical computations.
- Establish and maintain effective working relationships with others.
- Reduce, interpret, and apply field notes in the performance of complex drafting duties.
- Work overtime and on call to perform emergency repair of Public Works facilities.

EDUCATION AND EXPERIENCE:

A typical way of gaining the knowledge, skill and abilities outlined below is as follows:

Level I:

AA degree or its equivalent, including courses in CAD, drafting, algebra, geometry, and trigonometry. Some experience in engineering, architectural or planning drafting work.

Level II:

AA degree or equivalent including course work in computer aided and technical drafting, algebra, geometry, and trigonometry. AND two (2) years of full time experience in engineering, architectural or planning drafting work.

Certificates, Licenses, Registrations

Valid California driver's license and have a satisfactory driving record.

LANGUAGE SKILLS:

Ability to read and interpret documents such as rules, operating and maintenance instructions and procedure manuals. Ability to write routine reports and correspondence.

MATHEMATICAL SKILLS:

Ability to calculate figures and amounts such as discounts, interest, commissions, proportions, and percentages. Ability to apply concepts of basic algebra.

REASONING ABILITY:

Ability to apply common sense understanding to carry out instructions furnished in written, oral, or diagram form. Ability to deal with problems involving several concrete variables in standardized situations.

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

While performing the duties of this job, the employee is regularly required to sit; use hands to finger, handle, or feel; reach with hands and arms; and talk or hear. The employee frequently is required to stand and walk. The employee must regularly lift and/or move up to 10 pounds and occasionally lift and/or move up to 25 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and 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 individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly exposed to video display and regularly works in inside environmental conditions. The employee is occasionally exposed to moving mechanical parts and outdoor weather conditions and occasionally works with use of personal vehicle. The noise level in the work environment is usually quiet.

FLSA Status:	Nonexempt
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