



SENIOR ENGINEER TECHNICIAN Classification Specification Non-Represented General

*Class specifications are only intended to present a descriptive summary of the range of duties and responsibilities associated with specified positions. Therefore, specifications **may not include all** duties performed by individuals within a classification. In addition, specifications are intended to outline the **minimum** qualifications necessary for entry into the class and do not necessarily convey the qualifications of incumbents within the position.*

DEFINITION:

Under general supervision, performs technical engineering related tasks for environmental, water, sewer, street, and other public works projects and programs; performs most complex drafting engineering design functions and special projects; assists Engineer in application of principles, methods, and techniques of civil engineering technology.

DISTINGUISHING CHARACTERISTICS:

The **Senior Engineering Technician** classification is distinguished from the Engineering Technician class by its responsibility for the more complex projects and assignments.

SUPERVISION RECEIVED/EXERCISED:

This classification receives general supervision from the City Engineer and/or designee.

ESSENTIAL FUNCTIONS: *(The following is a typical list of duties assigned to the Senior Engineer Technician. The duties included in this list are examples and are not intended to be all-inclusive or restrictive.)*

- Provides the public with information regarding specific locations within the City; may include legal descriptions of parcels, address verification, assessor's parcel numbers, easements, public right-of-way, property jurisdiction and assessments districts.
- Assists the public, developers, contractors, architects and land agents at the City's "One Stop Counter" or via telephone with plan check procedures and inquiries; provides information and technical data on engineering; performs research and analyses of related community development and planning issues.
- Breaks out survey data in Civil 3D, imports points, creates surfaces, builds plans and profiles, and puts together a set of civil plans from start to finish.



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- Researches, files and retrieves engineering plans, maps, exhibits and various documents; updates files and keeps reference system current.
- Drafts detailed dimensional CAD drawings such as those needed for City facilities, improvements, infrastructure systems and projects; updates and revises engineering drawings detailing sewer, water, storm drain, street improvement, and traffic systems.
- Prepares CAD engineering plans and specifications, maps, databases, and comprehensive plans using Civil 3D.
- Assists customers, both from other departments/agencies or the general public, in obtaining information or resolving problems.
- Assists in public works field inspections; provides field surveys for data collection and construction projects; acts as chairperson, note keeper, and instrument person on survey party; reduces, interprets and applies field notes in performance of drafting duties.
- Researches proposed and existing facilities of the distribution system for design and assists customers regarding information thereof.
- Installs system software and schedules systematic back-ups for all CAD systems; trains personnel to operate AutoCAD Map and Civil 3D in engineering design and drafting tasks; resolves system software and hardware problems, including coordination with supervisor and MIS Department as needed.
- May participate in pre-construction conferences with contractors.
- Perform complete, thorough, and timely plan review of civil design plans submitted for conditionally approved projects.
- Perform other related and peripheral duties as required and necessary for the successful performance of this job.

QUALIFICATIONS: *(The following are minimal qualifications necessary for entry into the classification.)*

Education and/or Experience:

Any combination of education and experience that has provided the knowledge, skills and abilities necessary for a Senior Engineering Technician. A typical way to obtain the knowledge and abilities would be to possess two (2) years experience in an Engineering Technician position or equivalent experience which has included computer aided drafting experience using Civil 3D; an Associate's degree, supplemented by advanced level courses in engineering, mathematics, drafting, or computer aided design with an



emphasis on Civil 3D software training; and a High School diploma or GED. Proficient in thorough, accurate civil plan review of construction plans.

License/Certificate:

Possession of, or ability to obtain, a valid class "C" California driver's license.

KNOWLEDGE/ABILITIES/SKILLS: *(The following are a representative sample of the KSA's necessary to perform essential duties of the position.)*

Knowledge of:

Engineering principles, practices and methods as applicable to a municipal setting; some knowledge of applicable City policies, laws, and regulations affecting Division activities; drafting procedures and application of methods and techniques of public works design; construction materials and methods; laws, statutes, and ordinances governing legal property descriptions; customer service skills and techniques; thorough knowledge of Civil 3D modules and plotting and civil plan review.

Skill to:

Operate an office computer and a variety of word processing and software applications; operate and maintain a variety of types of equipment, tools and machinery used on assigned work projects.

Ability to:

Make mathematical calculations with accuracy and speed; understand and interpret technical information (verbal and written); prepare, organize and maintain engineering field and office data, reports and systems; effectively and accurately communicate complex, technical information, verbally and in writing, to contractors, developers, property owners, employees, consultants, other governmental agency representatives, City officials, and the general public; perform freehand lettering; take survey notes with neatness, accuracy and speed; configure, troubleshoot and maintain CAD systems; establish and maintain good relations with others outside of and within the City.

WORKING CONDITIONS:

Position requires prolonged or intermittent sitting, standing, walking on level, uneven, or slippery surfaces, reaching, twisting, turning, kneeling, bending, stooping, squatting and crouching. The position also requires grasping, repetitive hand movement and fine coordination in preparing reports and using a computer keyboard in the performance of daily duties. Additionally, the position requires near and far vision when reading correspondence and using a computer and acute hearing is required when providing phone service and communicating in person. The need to lift, carry, push, and pull files, reports and other materials weighing up to 40 pounds is



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required. The employee may occasionally be required to travel to different sites and locations; when working outdoors the incumbent may encounter extreme weather conditions, including wet, hot, cold, wind, snow, ice, and heavy vehicle traffic. The noise level in the work environment is usually quiet to moderate when indoors and moderate to loud when outdoors.

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Working Conditions and Formatting Revised July 2008
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