

**City of San José**  
**CLASS SPECIFICATION**

**Title: Engineer I/II (3812/3813)**

<b>DEPARTMENT</b>	<b>ACCOUNTABLE TO</b>	<b>FLSA STATUS</b>
Varies	Varies	Exempt

**CLASS SUMMARY**

Under general supervision (Engineer I) or direction (Engineer II), performs professional engineering work in municipal public works construction or maintenance projects. Reviews plans and specifications for conformance to established standards, regulations and Federal, State and local codes. Consults with public and private engineers, contractors, owners, and stakeholders engaged in the construction and maintenance matters. Performs engineering drafting to provide technicians with general and/or project-specific details. Performs related work as required.

**DISTINGUISHING CHARACTERISTICS**

The Engineer I/II is the flexibly staffed entry/journey class in the Engineer series, described as follows:

Engineer I - This is the entry-level class in the Engineer classification series. This class is responsible for providing professional support to the City's infrastructure projects; areas of responsibility include engineering design, development and construction projects. Positions at this level are not expected to function with the same amount of knowledge or skill level as positions allocated to the Engineer II level and usually exercise less independent discretion and judgment in matters related to work procedures and methods. Work is usually supervised while in progress and fits an established structure or pattern. Exceptions or changes in procedures are explained in detail as they arise. As experience is gained, assignments become more varied and are performed with greater independence.

Engineer II - This is the journey-level class in the Engineer classification series responsible for performing the full range of professional support tasks for the City's infrastructure projects; areas of responsibility include engineering design, development and construction projects. Incumbents are expected to work independently and exercise judgment and initiative. Positions at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit. This class is distinguished from the Associate Engineer in that the latter performs the more complex work assigned to the series, including supervising the work of assigned staff, and performing project management duties.

**QUALIFICATIONS**

**(These qualifications are typically required. An equivalent combination of education and experience sufficient to satisfactorily perform the duties of the job may be substituted.)**

**Minimum Qualifications**

**Education and Experience**

***Engineer I***

A Bachelor's Degree from an accredited college or university in the required professional engineering designation or possession of an Engineering-In-Training (EIT) certificate. Professional engineering designation will be specified in the position announcement.

***Engineer II***

A Bachelor's Degree from an accredited college or university in the required professional engineering designation or possession of an Engineering-In-Training (EIT) certificate AND one (1) year of increasingly responsible professional engineering experience reviewing and preparing plans, estimates, and specifications.

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**Acceptable Substitution**

- Certificate of successful completion of the Engineer-In-Training examination issued by the California State Board of Registration for Civil and Professional Engineers, Land Surveyors, and Geologists may be substituted for the required education.

**Required Licensing (such as driver's license, certifications, etc.)**

- Possession of a valid State of California driver's license may be required.
- Possession of a Certificate of Registration in the required engineering discipline is desirable.

**Other Qualifications**

**(Incumbents may be required to have different combinations of the listed qualifications, or more specific job-related qualifications depending on the position.)**

**Basic Competencies**

**(Needed at entry into the job in order to perform the essential duties.)**

- Job Expertise - Demonstrates knowledge of and experience with applicable professional/technical principles and practices, Citywide and departmental procedures/policies and federal and state rules and regulations.
- Communication Skills - Effectively conveys information and expresses thoughts and facts clearly, orally and in writing; demonstrates effective use of listening skills; displays openness to other people's ideas and thoughts.
- Computer Skills - Experienced with common business computer applications including but not limited to: MS Outlook, MS Word, MS PowerPoint, MS Access, and MS Excel.
- Teamwork & Interpersonal Skills - Develops effective relationships with co-workers and supervisors by helping others accomplish tasks and using collaboration and conflict resolution skills.
- Analytical Thinking - Approaches a problem or situation by using a logical, systematic, sequential approach.
- Customer Service – Demonstrates the ability to anticipate customers' needs and deliver services effectively and efficiently using professional demeanor.
- Initiative - Exhibits resourceful behaviors toward meeting job objectives; anticipates problems, is proactive, and avoids difficulties by planning ahead; displays willingness to assume extra responsibility and challenges; pursues continuing education opportunities that promotes job performance.
- Planning – Acts to align own unit's goals with the strategic direction of the organization; Defines tasks and milestones to achieve objectives, while ensuring the optimal use of resources to meet those objectives.
- Problem Solving – Approaches a situation or problem by defining the problem or issue; determines the significance of problem; collects information; uses logic and intuition to arrive at decisions or solutions to problems that achieve the desired outcome.
- Project Management - Ensures support for projects and implements agency goals and strategic objectives.

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- Reliability - Completes quality work assignments in a timely and efficient manner; fulfills responsibilities and maintains confidentiality as appropriate.

<b>DUTY NO.</b>	<b>TYPICAL CLASS ESSENTIAL DUTIES: (These duties and estimated frequency are a representative sample; position assignments may vary depending on the business needs of the department.) Duties may include, but are not limited to, the following:</b>	<b>FREQUENCY*</b>
1.	Prepares designs, plans, estimates, and specifications for assigned City engineering and construction management projects; prepares contract specifications; develops project cost estimates; participates in project scope, schedule, and budget management; inspects or directs the inspection of facilities under construction or repair.	Daily/Several Times
2.	Reviews plans and specifications for conformance to established standards, regulations and Federal, State and local codes; consults with engineers, architects, contractors, owners and stakeholders involved in the construction and maintenance of private and public facilities and infrastructure to resolve design deficiencies arising from the plan review process.	Daily/Several Times
3.	Performs engineering drafting to provide technicians with general and/or project-specific details, including but not limited to structural details, utility cross sections, and related technical details.	Daily
4.	Participates in planning and supervising the work of technical staff responsible for conducting construction inspections, field investigations, and surveys for assigned project developments.	Daily
5.	Reviews, computes and analyzes field data for construction crews and estimates the value of work to be performed.	Daily
6.	Prepares a variety of technical project documentation, including progress reports, project specifications, drawings, correspondence with project stakeholders and related materials.	Daily
7.	Coordinates project management on assigned projects by overseeing, controlling, and guiding project construction operations through the project's life cycle.	Daily
8.	Analyzes new developments in engineering systems and equipment; conducts studies and investigates inefficiencies or malfunctions in equipment or designs; makes recommendations and designs modifications to improve efficiency.	Daily
9.	Assembles plans and specifications; prepares bidding documents; solicits bids; participates in contract awards; administers the contract; interprets plans and specifications; resolves field problems; conducts final inspections, and follows through with acceptance of project.	Weekly
10.	Administers consultant agreements and issues and reviews legal documents including, but not limited to, construction agreements, bonds, insurance, and fees.	Weekly
11	Communicates with member of the public with respect to any issues or concerns on projects.	Weekly
12.	Performs other related duties as assigned.	As Required

\*Frequency defined as Daily/Several Times, Daily, Weekly, Intermittent, or As Required

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**PHYSICAL/ENVIRONMENTAL ELEMENTS**

The following is a general statement for the classification. Individual positions may have additional or different physical/environmental elements.

Possess ability to:

- Move between/within work areas, including but not limited to sitting, walking, and standing on various surfaces, turning, bending, grasping, and making repetitive hand movements;
- Maintain professional demeanor during interactions with staff, customers, and the public.

When assigned to an office environment, possess ability to:

- Operate, access, enter, and retrieve data using standard office equipment, including but not limited to a computer or tablet;
- Read printed materials and a computer screen;
- Communicate in person and over the telephone;
- Be exposed to moderate noise levels and controlled temperature conditions.

When assigned to field inspection, possess ability to:

- Work in and inspect changing site conditions and work in progress;
- Perform light to medium physical work, including climbing/descending ladders;
- Operate a motor vehicle and visit various City sites;
- Be exposed to unpredictable working conditions including but not limited to loud noise levels, inclement weather conditions, road hazards, vibration, confined workspaces, toxic or caustic chemicals, hazardous physical substances, fumes, odors, gases, dust, and air contaminants;
- Lift, carry, push, and pull materials and objects averaging a weight of 40 pounds, or heavier weights, in all cases with the use of proper equipment.

**CLASSIFICATION HISTORY** *Created 5/80 (Civil Engineer I (Registered) and Engineer I), Created 5/84 (Civil Engineer II (Registered) and Engineer II), Rev. 7/84, Rev. 4/91, Rev. & Ret. 9/91 (previously Civil Engineer I/II (Registered) and Engineer I/II), Rev. 12/97, Rev. 6/02, Rev. 09/17; s003*