

City of San José
CLASS SPECIFICATION

Title: Senior Engineering Technician (3714)

DEPARTMENT	ACCOUNTABLE TO	FLSA STATUS
Varies	Varies	Non-exempt

CLASS SUMMARY

Under direction, performs sub-professional civil and traffic engineering, architectural, landscape architectural and contract duties. Researches and writes engineering specifications, and prepares plans and contract documents. Initiates contracts to maintain, repair, renew or make additions to City facilities; administers and inspects work progress. Plans and supervises traffic studies, and reviews findings and recommendations; supervises and participates in the design and location of traffic control devices. Supervises a team of lower level technicians, and schedules jobs according to priority. Performs related work as required.

DISTINGUISHING CHARACTERISTICS

This is the advanced journey-level class in the Engineering Technician classification series responsible for providing technical support to an assigned engineering or contract program area, and for providing lead direction and training to assigned staff. Incumbents regularly work on tasks that are varied and complex, requiring considerable discretion and independent judgment. Assignments are given with general guidelines and incumbents are responsible for establishing objectives, timelines, and methods to deliver work products. Work is typically reviewed upon completion for soundness, appropriateness, and conformity to policy and requirements. This class differs from the next lower class of Associate Engineering Technician in that incumbents of the latter class are responsible for performing the full range of duties assigned to the series, but do not lead the work of lower level staff. This class differs from the next higher class of Principal Engineering Technician in that incumbents of the latter class are responsible for supervising the staff and operations of a work unit.

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

Completion of high school or equivalent (General Education Development [GED] Test or California Proficiency Certificate) AND six (6) years of increasingly responsible sub-professional engineering/technical support experience, of which two (2) years of experience includes preparing engineering drawings, contract specifications, and cost estimates; drafting and structural detailing for final plans; construction or infrastructure inspection; or field surveying.

Acceptable Substitution

Successful completion of two (2) academic years or sixty (60) semester units of college level engineering technology courses or related field from an accredited college or university may be substituted for the remaining two (2) of four (4) years of sub-professional engineering/technical support experience. There will be no substitution for the two (2) years of experience preparing engineering drawings, contract specifications, and cost estimates; drafting and structural detailing for final plans; construction or infrastructure inspection; or field surveying.

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

- Possession of a valid State of California driver's license.

City of San José
CLASS SPECIFICATION

Title: Senior Engineering Technician (3714)

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 and 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.
- Continuous Improvement - Actively identifies new areas for learning and regularly creates and takes advantage of learning opportunities.
- Decision Making - Identifies and understands issues, problems, and opportunities; uses effective approaches for choosing a course of action or developing appropriate solutions.
- 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.
- Problem Solving - Approaches a situation or problem by defining the problem or issue; determines the significance of problem(s); collects information; uses logic and intuition to arrive at decisions or solutions to problems that achieve the desired outcome.
- Reliability - Completes quality work assignments in a timely and efficient manner; fulfills responsibilities and maintains confidentiality as appropriate.
- Technology Use/Management - Uses efficient and cost-effective approaches to integrate technology into the workplace and improve program effectiveness.

City of San José
CLASS SPECIFICATION

Title: Senior Engineering Technician (3714)

DUTY NO.	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:	FREQUENCY*
OFFICE FIELD ASSIGNMENT		
1.	Provides lead direction and training to assigned technical staff on project related tasks by planning, assigning and reviewing work deliverables.	Daily/Several Times
2.	Initiates contracts to maintain, repair, renew or make additions to City facilities; administers and inspects progress of work; verifies quality of work and approves for payment.	Daily/Several Times
3.	Manages the Central Services Yard for facilities tenant issues including access control systems, parking, storage, security, hazmat compliance, Storm Water Pollution Prevention, equipment maintenance, inspections and signage.	Daily/Several Times
4.	Researches and writes engineering specifications and prepares plans; prepares contract documents; obtains bids; inspects construction work in progress; performs final inspections; reviews invoices and pay letters; approves partial and final payments.	Daily
5.	Performs and drafts plans for the construction of roadway, building, landscaping, water system and other improvement projects structural detailing, for final plans; prepares contract specifications; reviews plans for conformance to established professional standards and specifications; revises less complex engineering and/or architectural designs within established limits; prepares costs estimates; interacts with project stakeholders with respect to project time frames and work flow.	Daily
6.	Participates in land acquisition, including research of deeds and maps; preparing maps; writing property descriptions; preparing records of survey; and calculating easement ties.	Daily
7.	Operates and utilizes a variety of specialized software programs relevant to work performed; stores electronic data; generates reports drawings; maintains base files and incorporates updates into the system.	Daily
8.	Performs a variety of project and office support technical tasks such as scheduling work requests, routing test reports, and providing assistance to field inspection staff; prepares graphical documents for reports and presentations; coordinates and attends project meetings; responds to citizens requests and issues on project related activities; prepares and distributes plans and specifications to utilities, construction industry publications and other interested parties; compiles information to be used in Requests for Proposals and processes contractual documents; maintains records of drawings, both in hard copy and electronic formats.	Daily
9.	Provides customer service to engineering consultants, private developers, contractors, interagency departments, private residents and other interested parties to provide engineering related information, maps, plans and specifications and to respond to project and process related questions; gathers information and reviews development plans to ensure that development conforms to City standards; determines public improvements required of developers; conducts on-site field inspections for project submissions.	Daily
10.	Utilizes technology to fulfill service requests to track and locate underground facilities, from initiation to completion.	Daily

City of San José
CLASS SPECIFICATION

Title: Senior Engineering Technician (3714)

DUTY NO.	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:	FREQUENCY*
11.	Assists engineers and inspectors in the field; maintains standard details and specifications; makes field inspections to confirm existing conditions and check accuracy of maps.	Weekly
12.	Prepares and reviews parcel maps and final maps to ensure quality, completeness and conformance to regulations; checks boundary calculations; maintains tracking systems for maps in process; ensures that documents are signed and recorded.	Weekly
13.	Oversees the work of consultant responsible for maintaining facilities owned by the City, but operated by external organizations.	Weekly
14.	Performs technical duties in the oversight of City facilities including, but not limited to, analysis of life cycle costs for building system equipment and architectural components, as well as indoor air quality testing and abatement projects.	Intermittent
15.	Provides technical support in support of special districts; coordinates assessment/tax roll updates for the City's benefits assessment districts and community facilities districts; researches codes and regulations for compliance when forming, modifying or disbanding special assessment and tax districts; assists in determining the amount of assessments/taxes necessary to make the debt service payments and provide adequate maintenance and operations of services.	Intermittent
16.	Drafts council memos, resolutions, ordinances, agreements, public notices and special election ballots and coordinates review with other departments.	Intermittent
17.	Manages programs for energy efficiency, environmental conservation and hazardous materials handling; ensures compliance with all applicable codes and regulations and serves on related committees citywide.	Intermittent
18.	May participate on a survey team; assist survey crew to determine points, lines, angles, elevations, and distances for property, boundary, construction, photogrammetric, and topographic surveys.	Intermittent
TRAFFIC AND TRANSPORTATION ASSIGNMENT		
19.	Plans and supervises traffic studies, and reviews findings and recommendations; supervises and participates in the design and location of traffic control devices; maintains traffic engineering records, and prepares required Federal and State reports.	Intermittent
20.	Leads a team to prepare traffic engineering studies to install traffic control devices.	Intermittent
21.	Coordinates the street striping program.	Intermittent
22.	Designs complete electrical systems for traffic signals and associated electroliers, consisting of traffic signal standards, luminaries, vehicle signal heads, mounting hardware, conduits and conductors, pull boxes, controller cabinets and locations, and specific type of service for various loads.	Intermittent
23.	Performs computerized traffic forecast modeling, including computer service cost estimating, contract preparation, coordination of data compilation, planning of processing sequences; performs computer runs; evaluates output projections; documents processing; maintains unit cost for modeling operations and maintains large network data base.	Intermittent

City of San José
CLASS SPECIFICATION

Title: Senior Engineering Technician (3714)

DUTY NO.	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:	FREQUENCY*
24.	Performs other related duties as assigned.	As Required

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

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 5/88, Rev. 4/98, Rev. 09/18; s003*