

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

**Title: Associate Engineering Technician (3713)**

<b>DEPARTMENT</b>	<b>ACCOUNTABLE TO</b>	<b>FLSA STATUS</b>
Varies	Varies	Non-exempt

**CLASS SUMMARY**

Under general supervision, performs a variety of sub-professional engineering, architectural and landscape architectural duties for civil, traffic, maintenance and office engineering projects and programs. Performs roadway, building, landscaping and other project drafting, including structural detailing, for final plans. Performs technical planning and research, basic design approach and the layout of a project and its electrical, mechanical and hydraulic provisions. Prepares engineering drawings, contract specifications, and cost estimates. Designs street light systems, including preparation of maps, diagrams, plans, contract documents, specifications and cost estimates. Conducts traffic surveys, and prepares findings and recommendations. Assists in supervising the installation and maintenance of traffic control devices. Performs related work as required.

**DISTINGUISHING CHARACTERISTICS**

This is the journey-level class in the Engineering Technician classification series responsible for performing a variety of sub-professional engineering, architectural, and landscape architectural duties in support of assigned program area. 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 differs from Engineering Technician II in that incumbents of the latter class are responsible for providing technical support to assigned engineering operations and/or programs. This class is distinguished from the Senior Engineering Technician that the latter class performs the most complex work assigned to the series, including serving in a lead worker capacity over assigned staff.

**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 four (4) years of increasingly responsible sub-professional engineering/technical support experience of which two (2) years of experience includes performing materials sampling and testing, drafting and developing plans and specifications, construction or infrastructure inspections, traffic engineering, 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 two (2) of four (4) years of sub-professional engineering/technical support experience. There will be no substitute for the two (2) years of experience performing materials sampling and testing, drafting and developing plans and specifications, construction or infrastructure inspections, traffic engineering, or field surveying.

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

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

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**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.
- 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.
- 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.

DUTY NO.	<b><u>TYPICAL CLASS ESSENTIAL DUTIES:</u> (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>	FREQUENCY*
<b>OFFICE AND FIELD ASSIGNMENT</b>		
1.	Conducts research on process related equipment; orders equipment/parts for maintenance and repairs; manages CMMS program; creates work orders and service requests.	Daily/Several Times
2.	May provide lead direction to entry level Engineering Technicians and other assigned personnel on project related tasks including drafting by planning, assigning and reviewing work deliverables.	Daily

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3.	Performs technical planning and research, basic design approach and the layout of assigned project including civil, electrical mechanical and hydraulic provisions; prepares engineering drawings, contract specifications, and cost estimates.	Daily
4.	Reviews a variety of construction plans and consults with higher level staff on issues arising from the review and implements decisions; reviews as built drawings and cost estimates for compliance and/or consistency with project specifications and requirements.	Daily
5.	Performs roadway, building, landscaping and other project drafting, including structural detailing, for final plans; prepares contract specifications, revises less complex engineering and/or architectural designs within established limits; plans and may supervise the preparation of construction drawings, maps and other assignments.	Daily
6.	Performs sub-professional engineering, architectural and landscape architectural studies of moderate difficulty for projects that involve considerable independent collection and analysis of data.	Daily
7.	Conducts geological and historical research; reviews soil reports that describe soil condition, type, seismic hazards, and related factors; assists in preparing environmental clearances and review of Environmental Impact Reports.	Daily
8.	Operates and utilizes a variety of specialized software programs relevant to work performed; stores electronic data; generates reports and drawings.	Daily
9.	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.	Daily
10.	Utilizes technology to fulfill service requests to track and locate underground facilities, from initiation to completion.	Daily
11.	As assigned, manages security cyber key program for assigned facility; creates and updates access locations and generates access reports.	Daily
12.	May inspect actual field construction of rough and finished grading, storm and sanitary sewer systems, placement of bed rock, installation of concrete structures, utility installations, street lights, signal systems, electrical installations, and municipal buildings, and landscaping; ensures quantity and quality of improvements.	Weekly

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13.	Through internal or contracted resources, coordinates the completion of work order assignments dealing with major building or equipment maintenance services including, but not limited: installation and repair of mechanical and process related equipment; building re-models, carpentry, electrical, and plumbing services; creates and processes work orders; monitors testing processes; manages contracts to ensure project specifications are met and contractors are following scope of work and affirms work has been completed in a satisfactory manner.	Weekly
14.	Reads construction plans, maps and survey field notes to produce a contiguous map of the City; prepares computer readable data to produce maps and reports; prepares formats; prepares work orders for changes in the computer model.	Weekly
15.	Manages facility vehicles and equipment, making sure certifications are met and equipment is operating correctly; conducts vehicle analysis for possible replacements, and creates specifications for new equipment.	Intermittent
16.	Analyzes roadway improvement priorities; separates capital improvements from general improvements; reviews aerial prints and maps; researches plans and records of survey; and field checks projects.	Intermittent
<b>TRAFFIC AND TRANSPORTATION ASSIGNMENT</b>		
17.	Designs street light systems, including preparation of maps, diagrams, plans, contract documents, specifications and cost estimates; alters existing criteria in order to meet new requirements.	Daily
18.	Conducts traffic surveys, and prepares findings and recommendations, recommends needed traffic control devices, coordinates work with other public agencies, assists in supervising the installations and maintenance of traffic control devices, designs and prepares specifications on major projects.	Daily
19.	Sets timing of traffic signals; analyzes and determines proper operational characteristics of signalized intersections; analyzes non-signalized intersections; maintains records pertinent to traffic signal operation; and performs other traffic signal operation studies when necessary.	Daily
20.	Handles citizen complaints on hazardous intersections and makes accommodations for improving traffic safety at the intersection; reviews and resolves traffic problems affecting safety of school age children; recommends placement of adult crossing guards.	Daily
21.	Develops standards for traffic signs delineation and pavement markings to ensure the safe and orderly movement of traffic; studies, evaluates and determines the need and provides for the installation of regulatory, warning, guide, and construction signs.	Daily
22.	Responds to citizen and public agency requests regarding parking; conducts investigations; determines appropriate parking restrictions.	Daily
23.	Reviews, evaluates and recommends establishment or modification to design related to traffic signing and delineation; ensures that safety, environmental and community values are considered; conducts field inspections of signing; develops standards.	Daily

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24.	Supervises and schedules traffic checkers to provide accurate volume counts (i.e. vehicle, pedestrian, truck, etc.); develops procedures.	Daily
25.	Makes field observations and compiles and analyzes data to support the setting of changing of speed limits.	Daily
26.	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 5/80 (Formerly Engineering Technician III), Rev. 4/98, Rev. 08/18; s002