

City of San José
CLASS SPECIFICATION

Title: Geographic Information Systems Specialist I/II (1381/1383)

DEPARTMENT	ACCOUNTABLE TO	FLSA STATUS
Varies	Varies	Non-Exempt

CLASS SUMMARY

Under immediate (Geographic Information Systems Specialist I) or general (Geographic Information Systems Specialist II) supervision, performs technical work in the utilization of geographic information systems (GIS) or computerized traffic forecast models. Operates and maintains (GIS) programs across multiple platforms using a variety of technologies, including, but not limited to computers, peripheral equipment, data collection devices, mobile and web-based applications, and GIS supported applications. Develops and maintains GIS schemas and databases. Performs related work as required.

DISTINGUISHING CHARACTERISTICS

The Geographic Information Systems Specialist I/II is the flexibly staffed entry/journey class in the Geographic Information Systems Specialist series, described as follows:

Geographic Information Systems Specialist I - This is the entry-level class in the Geographic Information Systems Specialist classification series. This class is responsible for providing technical support for assigned GIS operations and/or programs. Positions at this level are not expected to function with the same amount of knowledge or skill level as positions allocated to the Geographic Information Systems Specialist 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.

Geographic Information Systems Specialist II - This is the journey-level class in the Geographic Information Systems Specialist classification series responsible for performing the full range of technical system support for GIS operations and programs. 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 Senior Geographic Information Systems Specialist in that the latter class performs the most complex work assigned to the series, including serving as a lead worker for an assigned GIS program area.

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

Geographic Information Systems Specialist I – A Bachelor’s Degree from an accredited college or university in Geographic Information Systems, Engineering, Computer Science, Management Information Systems, Mathematics, Physical Science, Geography, Urban Planning or closely related field. A GIS or GISP certificate from a certifying body acceptable to the City of San José is highly desirable.

Geographic Information Systems Specialist II – A Bachelor’s Degree from an accredited college or university in Geographic Information Systems, Engineering, Computer Science, Management Information Systems, Mathematics, Physical Science, Geography, Urban Planning or closely related field AND one (1) year of increasingly responsible experience in computer programming, geographic information systems or transportation planning. A GIS or GISP certificate from a certifying body acceptable to the City of San José is highly desirable.

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Acceptable Substitution

- Geographic Information Systems Specialist II - Possession of a valid GIS or GISP certificate from a certifying body acceptable to the City of San José may be substituted for the one (1) year of experience in computer programming, geographic information systems or transportation planning.

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; knowledge of GIS applications, programming, and relational database model; knowledge of design techniques and tools to produce maps, graphics, and models; ability to perform computer programming, data analysis, or software development for GIS applications; 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 skill.
- Analytical Thinking – Approaching 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.
- Flexibility – Makes effective decisions and achieves desired results in the midst of major changes in responsibilities, work processes, timeframes, performance expectations, organizational culture, or work environment.
- 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.
- Multi-Tasking – Can handle multiple projects and responsibilities simultaneously; has handled a wide variety of assignments in past and/or current position(s).
- 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.

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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*
1.	Develops, operates, and maintains various types of Geographic Information Systems (GIS) technology and related processes across multiple platforms; develops and designs databases, schema, and workflows for various work groups; operates and maintains GIS related technology on multiple devices including computers, peripheral equipment, mobile and web-based applications, and GIS supported applications; performs geocoding, geo-referencing, spatial analysis, cartography, data editing, and related tasks.	Daily/Several Times
2.	Performs data input management tasks; interprets recorded plans to enter graphic and attribute data into a geographic information system; manages data inputs from project and development plans as well as data discrepancies filed by stakeholders; interfaces with customers and system stakeholders to support cross-departmental workflows, resolution of data discrepancies, installation of software updates, and any other issue that may arise; researches and analyzes plans or discrepancy reports to ensure accuracy of the City's infrastructure system.	Daily/Several Times
3.	Performs data management tasks; responsible for management of GIS related data input and workflows for multiple departments ensuring that data layers are constantly updated and accurate for internal and public use; creates web interactive and printable static cartographic displays.	Daily/Several Times
4.	Researches innovative new implementations of GIS to solve department problems.	Daily
5.	Identifies system problems by employing hardware and software diagnostic utilities and methodologies.	Weekly
6.	Develops and/or modifies geographic information or forecast modeling application software and related sub-system application software; prepares data for use in such models.	Weekly
7.	Works with consultant to analyze needed data in order to create specific GIS tools and develop needed custom applications.	Weekly
8.	Develops, documents, and regularly updates procedures for use of GIS functionalities.	Weekly
9.	Develops reports to track GIS team workload and produces periodic reports to detail plan backlog and track discrepancies.	Weekly
10.	Administers and maintains GIS software installations including testing, installing updates, upgrades, and patches; provides technical support and troubleshooting for local networked computers and configurations.	Intermittent
11.	Conduct various training sessions for fellow coworkers, and/or other employees throughout the city.	Intermittent
12.	Coordinates GIS integration to other systems and applications; develops data models to ensure successful data integration, and data mapping when migrating to different platforms; documents significant database changes.	Intermittent
13.	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.

In 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;
- Lift, carry, push, and pull materials and objects up to 25 pounds, or heavier weights, in all cases with the use of proper equipment;
- 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;
- Be exposed to moderate noise levels and controlled temperature conditions;
- Maintain professional demeanor during interactions with staff, customers, and the public.

CLASSIFICATION HISTORY *Created 1/91, Rev. 08/17; s000*