

**City of San Rafael
Job Class Specification**

**Job Title: Associate Civil Engineer
Assistant Engineer
Junior Engineer**

SUMMARY:

Under direct and general supervision, positions in this flexibly staffed series perform field and office professional civil engineering work in the planning, design, technical investigation, inspection and construction of projects in several areas of public works and civil engineering.

DISTINGUISHING CHARACTERISTICS:

This is a flex class job series. Placement of individual incumbents within the series depends on the needs of the City and will be based on a combination of factors including education, years and type of experience, and designation or work in progress and the Professional Registration as a licensed civil engineer in California or Engineer in Training (EIT) certification. Years with the City in itself will not be the deciding criteria for placement in the series.

The Associate Civil Engineer is the journey level classification in the engineering job class series. This job class requires registration as a licensed civil engineer and 4 years of responsible post degree engineering experience (a master's degree shall count for 1 year of post degree engineering experience). Under direction, an Associate Civil Engineer performs difficult and complex engineering work and may serve as a supervisor to a small group of engineers and/or paraprofessional engineering staff. The position calls for a high degree of initiative, technical proficiency, and judgement. The Associate Civil Engineer is distinguished from the lower class of Assistant Civil Engineer by the level of responsibility, difficulty and variety of engineering work performed. An Associate Civil Engineer is normally responsible for all phases of multiple projects or programs whereas an Assistant Civil Engineer is responsible for one or more individual projects within a program.

The Assistant Engineer is the initial classification in the engineering job class series requiring EIT and two years of Junior Engineer level experience (a master's degree shall count for 1 year of post degree engineering experience). Under general supervision, this position performs engineering work in the design, plan review, investigation, inspection and construction of public works or private development projects, and performs related duties as assigned. The Assistant Engineer may oversee the work of contractors for assigned projects and may act as the lead engineer in administrative or technical support performing tasks on the same assigned projects.

The Junior Engineer is the entry level engineer classification. The position requires a BS degree in Civil Engineering and does not require any formal work experience or engineering certification.

ESSENTIAL DUTIES AND RESPONSIBILITIES may include but are not limited to the following:

For Junior Engineer, duties are performed at the entry engineer level; for Assistant Engineer, duties are performed at the mid-level engineer requiring more independence and judgment utilizing knowledge and work experience; for Associate Civil Engineer, professional and licensed engineer duties are performed at the full journey level:

- Develops Requests for Qualifications (RFQs) and participate with other department staff in the selection of consulting engineers.
- Prepares and/or assists in the preparation of plans, specifications and estimates pertaining to construction projects.

- Interprets plans and specifications.
- Makes engineering calculations, completes design drawings, makes and revises maps, charts and diagrams.
- Conducts pre-construction meetings with contractors to establish job requirements, i.e., timing, noise level, traffic impact.
- Performs field inspections of various municipal construction projects, in progress and upon completion.
- Prepares written reports on civil engineering issues/projects for the department.
- Meets with a variety of public and private officials, individually and/or in a group setting, on civil engineering matters.
- Research and make recommendations on civil engineering issues/problems.
- Performs project management on Capital Projects during the design, environmental, bidding, and construction phases of the project.
- Performs Resident Engineer duties on Capital Projects during construction.
- Performs inspection and enforcement duties to ensure compliance with applicable design standards, specifications, contracts and legal documents, codes and ordinances.
- Meets with State, Federal, Local Districts, Agencies, consultants, and engineers to discuss project guidelines, design parameters, policies and procedures.
- Performs work in accordance with local, State, and Federal standards and regulations.
- Designs and prepares plans and specifications and cost estimates for a variety of public works projects, including but not limited to streets, storm drains, bridges, parks, traffic signals, parking lots, water facilities, infrastructure improvements and other public facilities. Researches project design requirements, performs calculations, prepares estimates of time and materials costs and determines sequencing and detour requirements.
- Serves as Project Engineer (size and complexity based on classification), including serving as design team leader, handling contract administration and providing design support for the inspector during construction.
- Review plans and maps submitted by private developers for conformity with laws, ordinances, City imposed requirements and accepted professional standards with the goal of protecting the health, safety, and welfare of the community. Performs certain administrative duties associated with private development approvals such as preparing agreements, collecting fees, obtaining dedications, and coordinating with other agencies and City departments.
Investigates field problems affecting the public, property owners, contractors and maintenance operations; collects the necessary data or assigns the collection of data to technical personnel; develops recommendations and meets with the appropriate parties to discuss and implement recommendations.
Provides engineering information, including City requirements related to property improvements, to the public and other City departments. Arranges and participates in conferences with other engineers, developers and the general public on engineering problems.
- Assigns investigation, design and drafting tasks to subordinates, reviews completed work and assists in the developing solutions to difficult problems.
- Develops revised design and construction standards for public facilities.
- Researches publications and industry information sources and attends conferences and continuing education courses to keep abreast of new developments in the field of public works engineering.
- Prepares special engineering studies and reports, including but not limited to construction diaries, progress payments, state and federal paperwork associated with grant funding and permitting, staff reports, and duties as assigned.
- Participates in engineering inspection and survey activities.
- Prepares written recommendations, correspondence and reports on assigned projects.

- May attend and present information at public meetings.
- Performs related duties as required.

KNOWLEDGE OF:

- Principles and practices of civil engineering and surveying.
- Basic methods and equipment used in civil engineering construction.
- Thorough knowledge of principles and practices of civil engineering and surveying; and working methods and equipment used in civil engineering construction; pertinent Federal, State, and local rules, regulations and ordinances; and computer applications relating to civil engineering.
- Modern Civil Engineering tools and equipment including a PC and related software, including but not limited to AutoCad or similar drawing software.

ABILITY TO:

- Analyze engineering problems.
- Present clear, concise written and verbal reports.
Dealing effectively with other engineers, other City and agency staff, private contractors, and the public.
- Use modern Civil Engineering Equipment including a PC and related software.
- Communicate effectively with a wide range of citizens, other City and agency staff, private contractors both in oral and written format.
- Analyze civil engineering problems, evaluate alternatives, and reach sound conclusions.
- Prepare clear, concise, and accurate reports, records, and correspondence.
- Complete mapping and drafting assignments.
- Establish and maintain effective and collaborative working relationships.
- Inspect public works construction projects.

EDUCATION AND EXPERIENCE:

See “distinguishing characteristics” for education and/or experience required for the job classes within this series.

LICENSES:

A valid drivers' license is required for all job classes in the engineering series. Associate Civil Engineer requires registration as a Civil Engineer in the State of California. Assistant Engineer requires an EIT.

LANGUAGE SKILLS:

Ability to read, analyze, and interpret general business periodicals, professional journals, technical procedures, or governmental regulations. Ability to write reports, business correspondence, and procedure manuals. Ability to effectively present information and respond to questions from groups of managers, clients, customers, and the public.

MATHEMATICAL SKILLS:

Ability to work with mathematical concepts such as probability and statistical inference, and fundamentals of plane and solid geometry and trigonometry. Ability to apply concepts such as fractions, percentages, ratios, and proportions to practical situations.

REASONING ABILITY:

Ability to solve practical problems and deal with a variety of concrete variables in situations where only limited standardization exists. Ability to interpret a variety of instructions furnished in written, oral, diagram, or schedule form.

PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. While performing the duties of this job, the employee is regularly required to sit; use hands to finger, handle, or feel; and talk or hear. The employee frequently is required to stand, walk, reach with hands and arms, and taste or smell. The employee is occasionally required to climb or balance and stoop, kneel, crouch, or crawl. The employee must frequently lift and/or move up to 25 pounds and occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and ability to adjust focus.

WORK ENVIRONMENT:

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Hazards: Hazards are moderate, predictable and protected against.

FLSA Status: Nonexempt
Prepared By: Nash & Co.
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