

## ASSOCIATE ENGINEER

### DEFINITION

Performs professional and technical civil engineering work in support of City public works and private development projects starting with simple projects and moving to more complex ones. Employees in this job class provide general engineering support and direction to a variety of public and private projects. Projects worked on may include civil works projects including: roads, drainage, grading, buildings, water and wastewater pipelines and treatment facilities, tanks, parks and landscaping, bike paths, environmental mitigation and other related subjects.

The Associate Engineer is distinguished from the Assistant Engineer by the level of experience in the field of municipal engineering and the level of job knowledge. This is a more specialized class wherein incumbents are charged with performing a wide variety of complex engineering assignments and having a much broader range of knowledge, skills and abilities.

### SUPERVISION EXERCISED AND RECEIVED

Employees in this classification work under general supervision of the City Engineer. Employees in the Engineer positions are not directly responsible for the supervision and evaluation of other engineering staff; however they may provide supervision of work product to other engineers, inspectors, technicians or intern staff.

### ESSENTIAL AND IMPORTANT DUTIES

- Prepares construction drawings and specifications for a variety of City public works projects using AutoCAD and related civil design software to process projects through the City.
- Reviews and evaluates preliminary and final plans and specifications for private development.
- Prepares Requests for Proposals for support work such as surveying or biological studies.
- Inspects and evaluates ongoing public works and development projects to ensure compliance with plans and specifications and regulatory agency requirements.
- Conducts surveys, and/or assists survey personnel in obtaining field data and conducts a variety of field construction tests for compliance purposes.
- Verifies and maintains appropriate records and files; prepares comprehensive technical reports and agenda reports related to assignments. Presents reports as needed.
- Attends various meetings as a representative of the Public Works department.
- Performs a variety of computer and tracking support functions.
- Interacts with the public at the public counter answering questions and issuing permits for construction in the City's right of way.
- Prepares Requests for Proposals for design, construction management and plan review, and oversees work of consultants.

- Provides preliminary and final review of development proposals such as subdivisions maps, parcel maps and subdivision improvements.
- Reviews private development submittals for compliance with State and local regulations and specifications, working with project proponents to make necessary corrections.
- Effectively plans, organizes, schedules and implements projects.
- Performs studies, researches files, records, plans, and maps.
- Gathers, assembles, analyzes and interprets field data, and prepares reports.
- Plans, directs, participates, and effectively completes projects. This technical work involves engineering, surveying, construction, or other activities related to the civil engineering profession.
- Administers consultant contracts for support services such as surveying, soil testing, biological studies, etc.
- Coordinates with other departments as needed to complete assignments.
- Provides planning, specification, calculation and cost estimating review of others work.
- Reviews construction of projects and assists in maintaining construction documents.
- Reviews and evaluates development plans, maps, and related documents for conformance to City, State, and Federal codes. Reviews calculations and issues permits.
- Gathers traffic data, maintains traffic records, conducts traffic studies, and prepares traffic reports.
- Provides assistance to other City employees regarding engineering related matters.
- Plans, directs, participates and effectively completes moderately complex projects. This technical work involves engineering, surveying, construction or other activities related to the civil engineering profession.
- Provides supervision of work products of other members of a project team including technician or intern staff.
- Administers consultant contracts for moderately complex projects or service contracts, effectively monitoring costs and deadlines.
- Manages assigned projects by acting as lead person on the project, ensuring that all aspects of the project are addressed and the project is completed in a professional manner.
- Assists in the preparation and administration of budgets for operation and capital improvement programs.
- Coordinates work with regulatory agencies and private entities, completing public relations work as needed or assigned.
- Prepares reports and makes presentations to City and private groups as assigned.
- Applies for and obtains permits from local, State and Federal agencies.
- Applies for and administers grants.
- Performs related duties similar to the example duties in scope and function as required.

## JOB-RELATED AND ESSENTIAL QUALIFICATIONS

### **Knowledge of:**

- Principles and practices of civil engineering applicable to the planning, design, and construction of a wide variety of public works projects.
- Mathematics, design methods, uses and strengths of construction materials, and effects of soil conditions as they relate to the design and construction of public works.
- Hydrology, hydraulics, and structural design practices and procedures.

- Principles and practices of surveying and construction inspection, including applicable laws and safety requirements.
- Technical report writing.
- Computer systems and applicable software programs.
- Cost estimating and contract administration.
- Pertinent laws and regulations relating to design and construction of public works.
- Federal and State of California law and programs regarding planning, including the California Environmental Quality Act, Subdivision Map Act and local subdivision regulations.
- Principles of organization, project coordination and direction.
- Process for obtaining regulatory permits.
- Detailed City processes and purchasing policies.

**Ability to:**

- Apply knowledge gained from education in the performance of professional level engineering.
- Prepare engineering plans, designs, estimates, and specifications for a variety of public works projects and complete projects effectively.
- Solve engineering problems, utilizing a variety of civil engineering techniques.
- Use AutoCAD and standard office software such as word processing, spreadsheets and Adobe Acrobat.
- Follow written and oral directions.
- Deal tactfully and courteously with the public, contractors, and representatives of other agencies in providing professional engineering assistance and information.
- Communicate effectively and tactfully in both oral and written forms.
- Prepare staff reports associated with project work.
- Establish and maintain effective work relationships with those contacted in the performance of required duties.
- Meet the physical requirements necessary to safely and effectively perform required duties.
- Maintain activity records and infrastructure databases.
- Analyze and prepare recommendations for engineering issues.
- Perform routine survey work for projects.
- Perform traffic engineering duties.
- Plan and carry out a variety of engineering projects.
- Complete moderately complex projects effectively.
- Provide a high level of customer service to both internal and external customers.
- Work in team environment as both a participant and as the team lead.
- Prepare, assess and monitor consultant service proposals and contracts.
- Make public presentations regarding a variety of topics relating to City activities.
- Complete assignments in a timely manner.
- Prepare budget documents.
- Complete regulatory agency permits and grant applications.
- Provide effective oral presentations for City and private groups.
- Prepare clear, concise, reports and correspondence.
- Work in a standard office setting and occasionally in a field environment and construction zone.
- Use standard office equipment and to move between various office and field locations.
- Lift and carry office materials or field equipment weighing up to twenty pounds.

- Read printed materials and a computer screen.
- Hear and speak to communicate in person and over the telephone.

## EDUCATION AND TRAINING

Bachelor's degree in Civil Engineering or a related field **OR** possession of an Engineer in Training certificate.

## And

Three (3) years' work experience in design, construction, project management, surveying, permits, or plan review of civil engineering projects.

## LICENSES, CERTIFICATES AND REGISTRATION

- A valid California class 'C' driver's license.
- A valid Engineer in Training (EIT) certificate (Note: two years of additional work experience or a graduate degree may be substituted for the EIT).
- A valid certificate of registration as a Civil Engineer issued by the California Board for Professional Engineering and Land Surveyors is desirable.

Associate Engineer position may be considered for advancement to Senior Engineer position upon completion of 2 years of increasingly complex assignments with the City of San Carlos as an Associate Engineer (making a total of 5 years combined engineering experience); and performance evaluation ratings of satisfactory or above; and upon recommendation by City Engineer.