

ASSOCIATE CIVIL ENGINEER

DEFINITION

To perform professional engineering work in the design, investigation, and construction of public works projects; and to do related work as required.

SUPERVISION RECEIVED AND EXERCISED

General supervision or direction is provided by the Public Works Director. Work direction and training may be provided by a Senior Civil Engineer.

Responsibilities may include the indirect supervision of lower level professional or subprofessional, clerical and technical classifications.

CLASS CHARACTERISTICS

The Associate Civil Engineer is the journey level class in the professional engineering series. Positions in this class are flexibly staffed and are normally filled by advancement from the lower class of Assistant Engineer, or when filled from the outside require prior professional engineering work experience. An Associate Engineer is expected to complete complex engineering assignments requiring the use of judgment and initiative in developing solutions to problems, interpreting general policies and determining work assignments. Work in this class is distinguished from that of an Assistant Engineer by the greater complexity of assignments received and the greater independence with which an incumbent is expected to operate.

EXAMPLES OF DUTIES

Depending upon assignment, duties may include, but are not limited to, the following:

- Coordinates, supervises and performs responsible engineering work in connection with municipal public works projects; designs or prepares contract documents and specifications for the construction of streets, curbs and gutters, sidewalks, sanitary and storm sewers, parks, park irrigation systems, buildings and recreation areas.
- Reviews City construction projects in progress, analyze problems that may arise and recommend contract change orders as necessary.
- Reviews cost estimates and engineering calculations.
- Prepares engineering reports and engineering related matters for presentation to the City Council; make recommendations for Council action.
- Prepares schedules, charts, drawings, coordinate timelines and activities for and participates in the development, scheduling and administration of the Capital Improvement Program and other engineering projects.

- Answers questions, consults with, and assist agencies, engineering consultants, and individuals to resolve municipal engineering problems.
- Reviews plans and calculations of consulting engineers for City projects, and private contractors or owners for conformance with City standards and specifications.
- Develops revised design and constructions standards for public works structures.
- Prepares estimates and feasibility reports for new or modified services and structures.
- Drafts working drawings and tracings; makes blue-line copies; revise and updates maps, charts and diagrams.
- Performs traffic engineering studies.
- Acts as party chief and/or instrument man in a surveying party.
- Inspects construction projects for conformance with applicable codes.
- Administers contracts for construction projects.
- Prepares special engineering studies and reports.
- Provides information to the City Council and various committees on public works matters.
- Coordinates public works activities with other City departments, and with outside agencies.
- Assists in preparation and administration of the budget for the Public Works Department.
- When assigned, represents the Public Works Department; supervises subordinate staff in the Director's absence; reviews and signs plans for public works improvements (Senior Civil Engineer only).
- Manage City service contracts, including contract development, coordination, and review of services and processing of invoices.
- Respond verbally and in writing to citizen inquiries and complaints; investigate field problems, including but not limited to grading, encroachment permits, right-of-way, property line information, utility information, slope stability, stormwater and groundwater issues, improvement plan check and payment processes.
- Attend and participate in professional group meetings; represent the division and report back from assigned committees and meetings; stay abreast of new trends and innovations in the fields of City Engineering and Public Works.

Perform related duties as assigned.

QUALIFICATIONS

Knowledge of:

- Principles and practices of civil engineering as applied to the design, construction and inspection of public works.
- Methods, materials and techniques employed in public works and parks construction and maintenance.
- Modern developments, current literature and sources of information regarding engineering.
- Computer operation and CADD techniques.
- Principles and practices of supervision and training.
- Drafting and design nomenclature and symbols.
- Knowledge of mathematics and trigonometry as applied drafting and planning.
- Basic knowledge of software programs used in computer aided drafting.

- Methods, materials and techniques employed in public works and parks construction and maintenance.
- Modern developments, current literature and sources of information regarding engineering.

Ability to:

- Make complex engineering computations and check, design and prepare engineering plans and studies.
- Perform engineering drafting and related activities.
- Effectively utilize drafting instruments and computers.
- Use survey equipment and land survey nomenclature and symbols.
- Read and understand complex diagrams and maps.
- Establish and maintain effective working relationships with others.
- Reduce, interpret, and apply field notes in the performance of complex drafting duties.
- Interpret and apply Federal, State, and local policies, laws and regulations.
- Assist in developing and administering contracts for professional services and construction.
- Prepare maps and engineering drawings, design computations, plans, and studies.
- Read plans, drawings, and sketches and perform basic plan checking activities.
- Interpret, apply and explain complex laws, codes, regulations, and policies.
- Analyze problems, identify alternative solutions, project consequences of proposed actions and implement recommendations in support of goals.
- Respond tactfully, clearly, concisely, and appropriately to inquiries from the public, press, or other agencies on sensitive issues in area of responsibility.

EDUCATION AND EXPERIENCE

Any combination of training and experience that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

Possession of a valid Certificate of Registration as a civil engineer issued by the California State Board of Registration for Professional Engineers and one year of civil engineering experience preferably in a municipality.