

**ASSISTANT ENGINEER/
ASSOCIATE ENGINEER**

DEFINITION

Under direct or general supervision, performs various professional field and office engineering work related to the management, planning, design, construction, and maintenance of the City's Capital Improvement Program (CIP), land development, traffic engineering, public works infrastructure, and daily departmental operations; provides project management and administration; confers with developers, contractors, and representatives of other agencies regarding facility and infrastructure development; administers professional services and construction contracts; administers Federal and State grant funds associated with construction projects; provides professional staff assistance to the City Engineer, other departments, and the public in areas of expertise; performs a variety of studies and prepares and presents staff reports; and performs related work as required.

SUPERVISION RECEIVED AND EXERCISED

Receives direct or general supervision from the City Engineer, or a Senior Engineer. May provide technical and functional direction to lower-level staff and when acting in a Project Manager capacity..

CLASS CHARACTERISTICS

Assistant Engineer: This is the entry-level class in the professional engineering series. Initially, under close supervision, incumbents with basic engineering experience perform professional and technical engineering work in City's Capital Improvement Program (CIP), land development, traffic engineering, public works infrastructure, and daily departmental operations, in addition to providing project management and administration. As experience is gained, assignments become more varied, complex, difficult, and are performed with greater independence. Positions at this level usually perform most of the duties required of the positions at the Associate level, but are not expected to function at the same skill level and usually exercise less independent discretion and judgment in matters related to organization policy, 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. Since this class is often used as a training class, employees may have only limited or no directly related work experience.

Associate Engineer: This is the full journey-level class in the professional engineering series. Incumbents are expected to perform the full range of professional and technical engineering work in all of the following areas: the City's CIP, land development, traffic engineering, public works infrastructure, and daily departmental operations, in addition to providing project management and administration. Positions at this level are distinguished from the Assistant level by the performance of the full range of duties as assigned, working independently, and exercising 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 Engineer in that the latter is the advanced journey-level class in the series and is responsible for organizing, assigning, and reviewing the work of departmental and/or contract staff involved in a major area of the Engineering Department, in addition to possessing a highly-developed and clearly-distinguishable skillsets in particular areas of expertise and/or performing the most complex and difficult engineering and project management activities.

Positions in the professional engineer class series are flexibly staffed, and positions at the Associate level are normally filled by advancement from the Assistant level requiring three (3) additional years of experience and after gaining the knowledge, skill, experience, licenses, and certifications which meet the qualifications for, and after demonstrating the ability to perform the work of, the higher-level class. When filled from the outside, the employee is required to have five (5) years of prior related experience that allows the employee to meet the qualification standards for the Associate level.

EXAMPLES OF TYPICAL JOB FUNCTIONS (Illustrative Only)

Management reserves the right to add, modify, change or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.

- Plans, designs, and inspects all phases of civil engineering public works construction projects, including defining the scope of the project; coordinating with permitting and public utility agencies; performing historical document research and review; surveying and engineering analysis of alternatives; preparing plans, specifications, and cost estimates; performing research, map, and field studies and surveys; drafting site plans with specialized computer software; applying engineering principles and practices to specific problems; coordinating construction schedules with other projects and agencies; preparing and reviewing cost estimates; and inspecting construction of projects to ensure compliance with construction documents; and performs related planning and design work.
- Reviews construction plans prepared by consulting engineers and private contractors to verify compliance with City, State, Federal, and/or industry standards and requirements for public works infrastructure; checks plans for conformance with regulations regarding line, grade, size, elevation, and location of structures; reviews engineering calculations of other engineers or engineering technicians; participates in pre-design, construction, and utility coordination meetings and issues construction permits.
- Provides construction administration, public relations, management, and inspection of public works construction projects, including coordinating work with other City departments and agencies, reviewing and inspecting work to preserve public safety and ensure conformance with plans and specifications, tracking and maintaining all project accounting, coordinating schedules, and providing public notices of projects.
- Investigates field problems affecting property owners, contractors, and maintenance operations; responds to citizen inquiries and complaints; provides information to the public at the front counter in person, via telephone, or other means of communication regarding grading, encroachment permits, right-of-way and property line information, utility information, slope stability, drainage, and groundwater issues.
- Assists and/or performs traffic engineering studies, such as speed and traffic surveys and traffic counts.

- Processes and reviews development projects, such as subdivisions, and prepares and reviews legal descriptions, improvement plans, and related documents.
- Reviews and prepares traffic signal plans, and sign and striping plans.
- Prepares and reviews hydrology studies and hydraulic calculations.
- Attends meetings, conferences, workshops, and training sessions and reviews publications and audio-visual materials to become and remain current on principles, practices, and new developments in assigned work areas.
- Communicates and coordinates regularly with appropriate others to maximize the effectiveness and efficiency of interdepartmental operations and activities.
- May provide technical direction and training to other engineering and technical staff.
- Performs other duties as assigned.

QUALIFICATIONS

Knowledge of:

- Civil engineering principles, techniques, policies, and procedures.
- Methods, materials, and techniques used in the construction of public works projects, including water and wastewater systems, stormwater, street, and traffic systems design.
- Basic principles, practices, procedures, and standards related to City public works, engineering infrastructure development and maintenance, and surveying.
- Basic principles and practices of capital improvement program budgeting, cost estimation, funding, project management, and contract administration.
- General design, layout, and construction practices for public improvements such as streets, storm drains, grading, and landscaping.
- Subdivision engineering, plan review, mapping, and construction practices.
- Bidding requirements for public works projects.
- Project management and contract administration principles and techniques, especially in a public agency setting.
- Engineering plan types, review practices, and permit filing and approval procedures.
- Applicable Federal, State, and local laws, regulatory codes, ordinances, and procedures relevant to assigned area of responsibility.
- Modern office practices and technology, including personal computer hardware and software applications related to the work, such as computer-aided drafting (CAD) concepts and applications, and Geographic Information Systems (GIS) programs.
- Modern developments, current literature, and sources of information regarding engineering.
- Principles of advanced mathematics and their application to engineering work.
- Practices of researching engineering and design issues, evaluating alternatives, making sound recommendations, and preparing and presenting effective staff reports.
- Methods and techniques of effective technical report preparation and presentation.
- English usage, grammar, spelling, vocabulary, and punctuation.
- Techniques for effectively representing the City in contacts with governmental agencies, community groups, various business, professional, educational, and regulatory organizations and with property owners, developers, contractors, and the public.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and City staff

Ability to:

- Manage the completion of CIP projects, on-time and within budget.
- Design engineering projects.
- Conduct complex civil engineering research projects, analyze complex problems, evaluate alternatives, make sound recommendations, and prepare effective technical staff reports.
- Prepare, analyze, understand, and interpret engineering construction plans, specifications, and other contract documents, and determine conformance with applicable laws and standards.
- Conduct comprehensive engineering studies and prepare reports with recommendations.
- Analyze, interpret, summarize and present administrative and technical information and data in an effective manner, including written reports.
- Assist in and develop and administer contracts for professional services and construction in a public agency setting.
- Perform mathematical and engineering computations with precision.
- Recognize discrepancies from as-built to contract specifications and recommend reconciliation.
- Make engineering design computations and check, design, and prepare engineering plans and studies.
- Effectively represent the department and the City in meetings with governmental agencies, community groups, and various business, professional, and regulatory organizations and individuals.
- Direct the work of contract consultants.
- Establish and maintain a variety of filing, record-keeping, and tracking systems.
- Make sound, independent decisions within established policy and procedural guidelines.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines.
- Operate modern office equipment including computer equipment and specialized software applications programs.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Use tact, initiative, prudence, and independent judgment within general policy, procedural, and legal guidelines.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

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:

Assistant/Associate Engineer: Equivalent to graduation from an accredited four-year college or university with major coursework in civil engineering or a related engineering field.

Assistant Engineer: Two (2) years of professional engineering design, plan review, and project administration experience, preferably in a public agency setting.

Associate Engineer: Five (5) years of professional engineering design, plan review, and project administration experience, preferably in a public agency setting, or three (3) years of experience equivalent to Assistant Engineer at the City of Lafayette.

Licenses and Certifications:

Assistant/Associate Engineer: Possession of, or ability to obtain, a valid California Driver's License by time of appointment.

Assistant Engineer: Possession of certification as an Engineer-In-Training is desirable.

Associate Engineer: Possess and maintain a valid certificate or registration as a Professional Engineer in the State of California.

PHYSICAL DEMANDS

Work is performed in an office environment and in the field. The office environment requires the mobility to work in a standard office setting and use standard office equipment, including a computer, vision to read printed materials and a computer screen; and hearing and speech to communicate in person, before groups, and over the telephone. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push and pull materials and objects weighing up to 25 pounds. The field environment requires the mobility to walk long distances, traverse uneven, hilly terrain, climb ladders, and stairs. The field work requires the agility to inspect temporary, unfinished, construction sites and access points, which may include entry into confining spaces and inspecting sites of significant height. Requires the ability to operate a motor vehicle to visit various City development and meeting sites.

ENVIRONMENTAL ELEMENTS

Employees work in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees also work in the field and may be exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, rough terrains, vibration, mechanical and/or electrical hazards, and hazardous physical substances and fumes. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.

WORKING CONDITIONS

Must be willing to work a varied schedule of hours, which may include evenings, and/or weekends, as needed.