



**MARCH 2016**  
**FLSA: EXEMPT**

## **ASSOCIATE ENGINEER**

### **DEFINITION**

Under general direction, performs field and office civil and transportation engineering work related to the planning, design, construction and maintenance of City and regional projects and programs in the areas of capital improvement, traffic operations and safety, stormwater, and building services, including conducting map and plan checks, preparing project schedules, plans, specifications, and cost estimates, and reviewing legal and plot descriptions; advertises for construction, coordinates engineering activities with contractors and other agencies and monitors contracts; and performs related work as required.

### **SUPERVISION RECEIVED AND EXERCISED**

Receives general supervision from a Senior Civil Engineer, Division Manager, and/or Department Director. Exercises no direct supervision of staff. May provide technical and function direction to lower-level staff.

### **CLASS CHARACTERISTICS**

This is the journey-level in the professional engineering classification series and incumbents may perform the full range of the engineering functions, but with primary emphasis on infrastructure development and traffic issues in a developing City. Incumbents may be assigned to either the Public Works Department or the Community Development Department. This class is distinguished from the higher level of Senior Civil Engineer in that the Senior Civil Engineer handles complex projects and has full supervisory authority over lower-level Engineers and Inspectors. It is distinguished from the lower-level of Assistant Engineer in that the Associate Engineer has project management responsibilities in addition to performing the full range of professional engineering duties on routine projects and performs more complex plan checks. This class is further distinguished from the Senior Civil Engineer in that the latter is the full supervisory-level class in the series and has ultimate responsibility for organizing, assigning, supervising, and reviewing the work of staff involved in a major functional area or project/program of the Public Works Department or Community Development Department.

### **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.*

- Serves as plan check engineer or project manager on projects, including defining project scope and selecting consultants; negotiates contracts, change orders and amendments; prepares and monitors project schedules; monitors, reviews and coordinates project design and construction; evaluates contractor requests for extra work; monitors contractor's work and enforces terms of the contract; and processes payments and change orders; coordinates projects with businesses, utilities and other City departments.

- Conducts field and construction site inspections; ensures contractor compliance with contract/plan documents and time and budget estimates; recommends field changes.
- Prepares and reviews traffic signal timing plans and updates as needed; constructs traffic signal computer models used to prepare timing plans and prepares traffic signal designs and specifications.
- Analyzes development plans and local infrastructure plans for their effect on traffic congestion, road access issues, traffic flow and related traffic related issues and develops mitigation plans.
- Prepares designs, specifications, plans, estimates and reports for assigned Capital Improvement projects and the development and modification of City infrastructure.
- Conducts civil and traffic engineering and related studies, evaluates alternatives, makes recommendations and presents reports to superiors and others; conducts studies and confers with the public regarding transportation and traffic issues.
- Prepares a variety of written materials, including staff and engineering reports and grant applications for engineering and transportation projects.
- Prepares Requests for Proposals and administers consultant selection process for the design of assigned capital projects; administers construction contracts during the construction phase.
- Coordinates projects with activities of businesses, utilities, special districts and other City departments.
- Serves as the City representative at meetings and promotes department and/or City objectives.
- Responds to complaints and assists in solving problems related to construction or City plans; interprets plans and policies; confers with and provides information to property owners, contractors, engineers, consultants and the general public on conformance to standards, plans, specifications and codes.
- Maintains accurate records and files.
- Performs other duties as assigned.

## **QUALIFICATIONS**

### **Knowledge of:**

- Engineering theories and principles related to the area of assignment.
- Construction theories and principles.
- Bidding requirements for public works projects.
- Project management and contract administration principles and techniques.
- 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:**

- Conduct complex civil engineering research projects, analyze complex problems, evaluate alternatives, make sound recommendations, and prepare effective technical staff reports.
- Prepare, understand, and interpret engineering construction plans, specifications, and other contract documents.
- Conduct comprehensive engineering studies and prepare reports with recommendations.
- Assist in and develop and administer contracts for professional services and construction in a public agency setting.
- Write technical reports and prepare cost estimates.
- Read blueprints, plans, and technical specifications;
- Interpret, apply, explain, and ensure compliance with Federal, State, and local policies, procedures, laws, and regulations, technical written material, and City engineering policies and procedures.
- 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:*

Equivalent to graduation from a four-year college or university with major coursework in a civil engineering curriculum or a field related to the area of assignment and three (3) years of professional engineering experience; or an equivalent combination of education and experience sufficient to successfully perform the essential duties of the job as listed above.

**Licenses and Certifications:**

- Possession of, or ability to obtain, a valid California Driver's License by time of appointment.
- May be required to possess and maintain a registered Professional Civil Engineer license in the State of California.

**PHYSICAL DEMANDS**

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer, to inspect City development sites, including traversing uneven terrain, climbing ladders, stairs, and other temporary or construction access points, to operate a motor vehicle, and to visit various City and meeting sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person, before groups, and over the telephone. This is primarily a sedentary office classification although standing and walking between work areas and to conduct inspections may be required. 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.

**ENVIRONMENTAL ELEMENTS**

Employees work in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees may work in the field and occasionally be exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, 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.