



June 2023  
FLSA: EXEMPT

## SENIOR CIVIL ENGINEER

### **DEFINITION**

Under general direction, leads, oversees, and 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; acts as project manager for public works construction projects; provides administrative support to the Engineering Manager; and performs related work as required.

### **SUPERVISION RECEIVED AND EXERCISED**

Receives general direction from assigned supervisory or management personnel. Exercises technical and functional direction over and provides training to lower-level staff.

### **CLASS CHARACTERISTICS**

This classification is the advanced journey-level in the professional engineering series. Incumbents work under general direction and exercise a high level of discretion and independent judgment in performing the full range of routine to complex assignments, projects, analyses for the City's civil engineering programs. Incumbents also provide lead direction to professional, technical, and administrative support staff. This class is distinguished from the Engineering Manager in that the latter has full management authority in planning, organizing, and directing the full scope of engineering functions within the 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.*

- Performs responsible and demanding engineering and project management work in Public Works; performs a variety of administrative engineering functions.
- Prepares plans and specifications for the design, construction, and maintenance/operation of a variety of public works facilities and projects, including streets, traffic signals, parks and recreation facilities, storm, sanitary sewer and water systems, lagoon and levee systems, public buildings, and other infrastructure; ensures conformance to federal, state, and local legal requirements and professional engineering design practices.
- Prepares and/or participates in the preparation and review of preliminary and final engineering plans, cost estimates, cost analysis studies, specifications, and schedules for public works projects; prepares forecasts and develops and monitors division and capital improvement project budgets.
- Researches project design requirements and performs related calculations; prepares time and material cost estimates, especially as related to existing or anticipated project budgets; assists in the preparation of department annual budget estimates.

- Prepares and administers contracts for engineering services; determines scope of projects; prepares requests for proposals; conducts pre-bid and pre-construction conferences; provides input into the selection process; and directs the work of contracted service providers
- Serves as project manager on assigned engineering and construction projects; analyzes and resolves design and engineering issues; settles disputes and issues with inspectors, engineers, and contractors; conducts negotiations for change orders; prepares contract modifications for change orders; coordinates relocation/adjustments of existing utilities for projects.
- Oversees inspections of civil infrastructure such as roads, water, sewer, and storm drains, subdivisions, and grading; may direct and coordinate the work of inspection personnel.
- Reviews subdivision and improvement plans, parcel maps, road and grading plans, and related maps and specifications for accuracy and conformance to established engineering practices and mandated regulations.
- Prepares or directs the preparation of grant applications, engineering reports and recommendations.
- Meets with contractors, engineers, developers, architects, a variety of outside agencies, and the general public in acquiring information and coordinating engineering matters; provides information regarding City capital project requirements.
- Provides information to the public and resolves questions and complaints regarding the interpretation and application of relevant codes, rules, and regulations relating to traffic and construction.
- Observes and complies with City and mandated health and safety rules, regulations, and protocols.
- Performs other related duties as assigned.

## **QUALIFICATIONS**

### **Knowledge of:**

- Principles of providing functional direction and training.
- Applicable federal, state, and local laws, codes, and ordinances relevant to area(s) of responsibility.
- Principles and practices of civil engineering as applied to public works methods, materials, and techniques used in the construction of complex public works projects including water, storm water, street, and traffic systems design.
- Methods and techniques of conducting comprehensive inspections on infrastructure projects.
- Principles and practices of capital improvement program budgeting, cost estimation, funding, project management, and contract administration.
- Principles and practices of project management.
- Design principles, strength of materials, stress analysis and principles of mechanical, electrical, and structural engineering and surveying as they apply to the design of public works structures.
- Principles and practices of municipal management including personnel, budget planning and preparation and public relations.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and City staff.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination.
- Computers and software programs (e.g., Microsoft software packages) to conduct, compile, and/or generate documentation.

### **Ability to:**

- Plan, organize, and coordinate the work of assigned staff.
- Effectively provide staff leadership and work direction.

- Perform a variety of professional engineering duties in support of the City's capital improvement projects.
- Prepare complex engineering computations and check, design, and oversee the preparation of various engineering plans and reports.
- Utilize advanced engineering techniques to determine grade, drainage, and potential traffic requirements.
- Prepare accurate estimates of costs, schedules, personnel resources, and perform other similar activities related to project management.
- Serve as project manager on engineering, construction, and capital improvement projects from the planning through the construction phases including compliance with project specifications, quality, timeline, and budget.
- Gather, analyze, and interpret a variety of complex technical data.
- Read and interpret maps, plans, sketches, schematics, diagrams, and blueprints.
- Establish and maintain a variety of filing, record keeping, and tracking systems; make and keep accurate construction project files and logs, including funding sources and budgeting.
- Oversee and/or conduct comprehensive construction project inspections.
- Conduct complex research projects, evaluate alternatives, make sound recommendations, and prepare effective technical staff reports.
- Understand, interpret, and apply all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.
- Effectively represent the department and the City in meetings with individuals; governmental agencies; community groups; various business, professional, and regulatory organizations.
- Learn and understand the organization and operation of the City and of outside agencies as necessary to assume assigned responsibilities.
- Independently organize work, set priorities, meet critical deadlines, and follow-up on assignments.
- Effectively use computer systems, software applications, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- 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 a bachelor's degree in engineering or a directly related field and three (3) years as a Civil Engineer with the City of Foster City or equivalent or five (5) years of professional experience in civil engineering work including project design, plan checking, and project management.

### **Licenses and Certifications:**

- Possession of, or the ability to obtain, a valid Class C California driver's license upon appointment.
- Possession of a valid Certificate of Registration as a Civil Engineer in the State of California.

### **PHYSICAL DEMANDS**

When working within an office environment, must possess 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 and over the telephone; ability to stand and walk

between work areas 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.

When working in the field environment, must possess mobility to work in changing site conditions; possess the strength, stamina, and mobility to perform light to medium physical work; to sit, stand, and walk on level, uneven, or slippery surfaces; to reach, twist, turn, kneel, and bend, to climb and descend ladders; and to operate a motor vehicle and visit various sites; vision to inspect site conditions and work in progress. The job involves fieldwork requiring frequent walking in operational areas to identify problems or hazards, with exposure to hazardous materials in some site locations. Employees must possess the ability to lift, carry, push, and pull materials and objects averaging a weight of 40 pounds.

### **ENVIRONMENTAL CONDITIONS**

Employees work primarily in an office environment with moderate noise levels and controlled temperature conditions, and periodically work in a field environment where they are exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, confining workspace, chemicals, mechanical and/or electrical hazards, and hazardous physical substances and fumes. Employees may interact with upset staff and/or public and private representatives and contractors in interpreting and enforcing departmental policies and procedures.