

## SENIOR CIVIL ENGINEER

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job.*

### **SUMMARY DESCRIPTION**

Under direction oversees and performs advanced level professional engineering work in design, construction and maintenance of public works projects; plans and coordinates a major public works program; and supervises engineering division staff and activities.

### **DISTINGUISHING CHARACTERISTICS**

This is the advanced journey level class in the Engineer series. Positions at this level are distinguished from other classes within the series by the level of responsibility assumed and the complexity of duties assigned. Employees perform the most difficult and responsible professional engineering duties. Employees at this level are required to be fully trained in all procedures related to assigned area of responsibility.

### **REPRESENTATIVE DUTIES**

*The following duties are typical for this classification. Incumbents may not perform all of the listed duties and/or may be required to perform additional or different duties from those set forth below to address business needs and changing business practices.*

1. Lead, plan, train, and supervise the work of engineering staff responsible for design, construction, traffic and transportation engineering; verify the work of assigned employees for accuracy, proper work methods, techniques, and compliance with applicable standards and specifications.
2. Perform advanced professional engineering in connection with municipal public works projects; plan, schedule and coordinate work on major or complex engineering projects.
3. Prepare and oversee the preparation of engineering plans, specifications, and costs for the construction of streets, storm drains, parks, signals, buildings and other capital improvement projects.
4. Prepare and oversee the preparation of engineering reports concerning traffic related complaints and problems.
5. Review a variety of construction plans, maps, reports, applications, and various development and construction agreements.
6. Provide information and respond to questions from the public, contractors, developers, and other City departments.
7. Determine design procedures; interpret the application of design criteria.
8. Prepare grant funding applications for various projects; process and track grant applications and funds.
9. Check plans and specification for accuracy and completeness of design.

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10. Prepare preliminary and final project cost estimates.
11. Provide project management for construction projects to ensure contractor compliance with project specifications, time, and budget parameters; provide engineering information to contractors, developers, engineers and the public.
12. Review and approve payments for consultants, vendors, and contractors.
13. Resolve disputes between the City and contractors concerning plans, specifications and extra work.
14. Prepare staff reports, and make presentations to the City Council, commissions and other groups, as necessary.
15. Coordinate engineering work with other City divisions, consultants, developers and property owners.
16. Review development plans and capital improvement plans and make recommendations regarding design, constructability, maintenance, and traffic related issues; meet with developers and consultants to resolve issues.
17. Prepare grant funding applications for various engineering related projects; process and track grant applications and funds.
18. Work with other City departments on engineering issues; prepare the work program for staff.
19. Participates on a project development team city and regional projects including engineering and road construction plans and specifications.
20. May assist in the field engineering and inspection of all engineering and public works related projects and improvements.
21. May perform field survey work.
22. Perform related duties as required.

**QUALIFICATIONS**

*The following generally describes the knowledge and ability required to enter the job and/or be learned within a short period of time in order to successfully perform the assigned duties.*

**Knowledge of:**

- Operations, services, and activities of a public works engineering program.
- Principles of supervision, training, and performance evaluation.
- Advanced principles and practices of civil engineering and their application to municipal engineering.
- Principles and practices of civil engineering and its application to municipal public works and construction.
- Land development, including planning and analysis of engineering systems needed for the use of land including streets, highways, sewage, water facility, storm drain, grading, land use and utilities.

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- Field and construction survey techniques.
- Civil engineering applied to estimates, studies, technical reports, design, plans, specifications and professional recommendations for a variety of engineering activities.
- Construction including survey, inspection and public works contract administration procedures, and engineering materials and methods.
- Public works contract administration including contract preparation, contractor selection, administration of contract work, change orders, disputes, claims, equal opportunity and closing of contracts.
- Equipment and materials used in street construction and maintenance.
- Design and drafting methods and equipment.
- Occupational hazards and standard safety practices.
- Pertinent federal, state, and local codes, laws, and regulations.

**Ability to:**

- Lead, organize, supervise, and evaluate the work of staff.
- Independently plan, perform and coordinate advanced level professional and technical engineering studies, computations, drawings, reports and surveys.
- Interpret, explain, and enforce department policies and procedures.
- Analyze problems and develop effective alternatives for their solutions.
- Oversee and coordinate the work of consultants and contractors.
- Write clear, concise and accurate technical and non-technical reports, correspondence and memoranda; prepare reports, agreements and accurate records.
- Prepare accurate plans, specifications, cost estimates and engineering reports and make accurate engineering computations and drawings.
- Coordinate engineering and construction activities with activities of other divisions and outside organizations.
- Take coaching, instruction, and feedback with a cooperative and positive attitude.
- Deal tactfully with the public, high level staff or other public and private agencies, contractors, private engineers, governmental officials and other City employees.
- Explain complicated technical matters in non-technical terms.
- Work independently in the absence of supervision.
- Understand and follow oral and written instructions.
- Communicate clearly and concisely, both orally and in writing.
- Establish and maintain effective working relationships with those contacted in the course of work.

**Education and Experience Guidelines**

**Education/Training:**

A Bachelor's degree from an accredited college or university with major course work in civil engineering, or a related field.

**Experience:**

Five years of increasingly responsible and professional engineering experience, with two years of experience comparable to that of an Associate Civil Engineer with the City of Antioch.

**License or Certificate:**

Possession of an appropriate, valid driver's license.

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Possession of registration as a Civil Engineer in the State of California or if a registered Civil Engineer in another state, the ability to obtain registration as a Civil Engineer in the State of California within one (1) year of appointment.

**PHYSICAL DEMANDS AND WORKING ENVIRONMENT**

*The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.*

**Environment:** Work is performed primarily in a standard office setting with occasional exposure to an outdoor field setting and travel from site to site.

**Physical:** Primary functions require sufficient physical ability and mobility to work in an office setting; to stand or sit for prolonged periods of time; to occasionally stoop, bend, kneel, crouch, reach, and twist; to lift, carry, push, and/or pull light to moderate amounts of weight; to operate office equipment requiring repetitive hand movement and fine coordination including use of a computer keyboard; and to verbally communicate to exchange information.

FLSA: Exempt

Created: September 2013

This class specification identifies the essential functions typically assigned to positions in this class. Other duties not described may be assigned to employees in order to meet changing business needs or staffing levels but will be reasonably related to an employee's position and qualifications. Other duties outside of an individual's skill level may also be assigned on a short term basis in order to provide job enrichment opportunities or to address emergency situations.