

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 general direction of the City Engineer and with minimal supervision, plans, coordinates, and manages Capital Improvement Projects and development projects, supervises over lower level personnel, administers and participates in the development and review of professional engineering services and activities for a variety to complex items involving traffic engineering, transportation related capital improvements, water distribution, sewer collection, drainage collection, construction project management of utilities, road, City facilities, land development and plan check activities. Responsibilities may include special projects involving professional and technical engineering support relative to assigned area of responsibility; to develop and implement long range planning; and to apply state and federal funding for roadway and other capital projects. Performs complex professional and technical work and performs related work as assigned.

IDENTIFYING CHARACTERISTICS

This is a supervisory level class within the professional Civil Engineer series. Positions at this level are distinguished from those in lower classification of Associate Civil Engineer by the independence with which they perform their duties of handling the most difficult and complex work and performing lead work.

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. Plans, assigns, directs, and supervises work associated with design and construction of roads, utilities, facilities, and various public works construction projects. Provides lead direction and reviews the work of a professional and technical project team or unit performing engineering duties in the areas of design, construction, utility design and maintenance implementation, transportation planning, traffic engineering, and/or real property.
2. Develop plans, specifications, estimates, and work orders for the design and construction of public works projects.
3. Supervises, trains, and evaluates personnel and assigned staff in areas of responsibility and provides for their development.
4. Assists in budget preparation and administration for the department including projects and programs within the department and monitors monthly expenditures, progress payments, and invoicing.
5. Coordinate public works activities with other agencies, city departments, divisions, sections, and outside agencies.
6. Assist in the preparation of the capital improvement plan and related project budgets.
7. Review and make recommendations on technical reports and studies.
8. Prepare reports and special studies related to submitted plans and documents; prepare correspondence regarding structural engineering and code enforcement concerns.
9. Inspect project sites in the capacity of engineer in responsible charge, to assist in determining solutions to difficult problems, provide construction engineering, and administration of construction management of Capital Improvement Projects.
10. Interpret and develop specifications and City policy, apply relevant codes, ordinances, rules,

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- and regulations.
11. Conduct special technical studies and investigations.
 12. Review computations and specified materials for accuracy and conformance with regulations.
 13. Participate in the review of plans, specifications, and all private development proposals including subdivision and parcel maps, either recommending for or against approval.
 14. Review and participate in the preparation of environmental assessments and clearance as well as implementation of mitigation measures.
 15. Assist City Engineer and/or serve as staff at council, committees, and commission meetings on engineering matters when needed.
 16. Meet and confer with developers, contractors, engineers, and the general public regarding city policies, regulations, projects, and procedures.
 17. Coordinate resolution of discrepancies and challenging situations related to engineering topics and projects.
 18. Provides technical and professional assistance to staff; reviews plans, specifications, contract documents and other reports and documents to ensure compliance with applicable codes, policies, procedures, and engineering practices.
 19. Performs the most difficult and complex supervisory engineering assignments; plans, reviews and participates in design work, contract administration and land use activities.
 20. Prepares and reviews project quantity and cost estimates; analyzes structures, roadways and other project sites for engineering, economic, legal, and other considerations.
 21. Performs complex project engineering work for a group of smaller projects or for major construction projects; inspects and monitors contract work for compliance with plans, specifications, codes and deadlines.
 22. Coordinates the activities of the unit with other divisions, departments, and public and private organizations and individuals.
 23. Represents the department and the City in meetings with property owners, engineers, contractors, developers, attorneys and representatives of other organizations.
 24. Prepares and maintains a variety of records and reports related to unit activities.
 25. Acts as "engineer in responsible charge" on assigned projects of a less complex nature, may approve and sign off on drawings and project documents.
 26. Monitors and evaluates the efficiency and effectiveness of service delivery methods and procedures; recommends, within departmental policy, appropriate service and staffing levels.
 27. Estimates staff time, equipment, and materials needed for planned projects; orders necessary supplies and equipment.
 28. Participates in the development and administration of the department's annual budget; participates in the forecast of funds needed for staffing, equipment, materials, and supplies; monitors and approves expenditures; implements adjustments.
 29. Plans and oversees construction of City facilities and construction inspection activities; ensures activities are in compliance with applicable codes, plans and City standards.
 30. Oversees and ensures conformance of all City services and activities with appropriate federal, state, and local laws, codes, and regulations.
 31. Negotiates and administers contracts with outside contractor; resolves problems and complaints as necessary.
 32. Reviews and signs engineering plans for CIP and development projects.
 33. Directs and participates in the preparation, development and evaluation of technical studies, reports and analyses related to Engineering Department and in support of Public Works Department maintenance activities; analyzes and evaluates study results.
 34. Provides responsible staff assistance to the City Engineer and the Public Works Director; conducts a variety of organizational studies, investigations, and operational studies; recommends modifications to public works engineering programs, policies, and procedures as appropriate.
 35. Attends and participates in professional group meetings; maintains awareness of new trends and developments in the field of engineering.
 36. Responds to and resolves difficult and sensitive citizen inquiries and complaints.

37. Performs 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:

1. Basic supervisory principles and practices including work planning, scheduling, review and employee training.
2. Principles and practices of civil engineering design and construction including sewer, water, and storm drain systems.
3. Principles and practices of land development and transportation planning.
4. Principles and practices of traffic engineering.
5. Principles and practices of structural engineering.
6. Principles and practices of contract administration and project management and evaluation.
7. Construction materials, methods, and equipment.
8. Basic principles and budget development and administration.
9. Office administrative principles and practices.
10. Principles and practices of contract administration.
11. Mathematical principles as applied to civil engineering work.
12. Modern office procedures, methods, and equipment including computers and supporting software applications.
13. Principles of business letter writing and report preparation.
14. Occupational hazards and standard safety precautions.
15. Pertinent federal, state, and local laws, codes, and regulations.

Ability to:

1. Read, interpret, and perform detailed analysis of designs, specifications, plans, and codes.
2. Analyze and correct plans, engineering calculations, and specifications accurately and consistently.
3. Interpret and apply engineering principles and techniques to the solution of complex civil engineering problems including all applicable codes, ordinances, rules, and regulations related to development and construction.
4. Develop, interpret, review, and analyze development and capital project proposals, plans, and specifications, including creation of Request for Proposals and/or Qualifications.

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5. Plan, assign, provide direction, and review the work of others. Check designs, calculations, and supervise the construction of a variety of public works projects.
6. Prepare plans, specifications, and estimates and technical reports pertaining to Capital Improvement Projects.
7. Supervise, train, and evaluate assigned personnel.
8. Organize work, set priorities, and exercise independent judgement within policy guidelines.
9. Deal tactfully and effectively with the public, staff, other agencies, engineering firms, contractors, developers, manufacturers and others.
10. Prepare clear, concise and accurate reports, records and correspondence.
11. Analyze complex civil engineering data and reports, evaluating alternatives and reaching sound conclusions.
12. Participate in the development and administration of division goals, objectives, and procedures.
13. Analyze problems, identify alternative solutions, project consequences of proposed actions, and implement recommendations in support of goals.
14. Research, analyze, and evaluate new service delivery methods and techniques.
15. Interpret and apply federal, state, and local policies, laws, and regulations.
16. Ensure adherence to established safety rules, regulations and guidelines.
17. Develop, review, and approve construction standards, plans, and specifications.
18. Prepare accurate descriptions of project requirements.
19. Understand and interpret complex engineering construction plans, specifications, and other contract documents.
20. Perform technical research and solve difficult engineering problems.
21. Develop, review, and modify engineering and construction drawings, plans, and specifications.
22. Operate office equipment including computers and supporting word processing, spreadsheet, and database applications.
23. Communicate clearly and concisely, both orally and in writing.
24. Establish and maintain effective working relationships with those contacted in the course of work.

Education and Experience Guidelines - Any combination of education and experience that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Education/Training:

Equivalent to graduation from a four-year college or university with major coursework in civil engineering, design, construction, and/or right-of-way work at a level equivalent to the City's Associate Engineering class.

Experience:

Five (5) years of full-time, increasingly responsible professional civil engineering experience in the assigned discipline, including significant supervisory experience.

License or Certificate:

Possession of, or ability to obtain by date of appointment, an appropriate driver's license.
Possession of valid Registration as a Professional Civil Engineer in the State of California.

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:

Standard office setting and outdoor field environment; travel from site to site; some exposure to noise, dust, grease, smoke, fumes, noxious odors, gases, and all types of weather and temperature conditions; work and/or walk on various types of surfaces including slippery or uneven surfaces and rough terrain; incumbents may be required to work extended hours including evenings and weekends.

Physical:

Primary functions require sufficient physical ability and mobility to work in an office setting and in a field environment; to walk, stand, and sit for prolonged periods of time; to climb up or down on ladders, to reach, twist, turn, kneel, bend, stoop, squat, grasp, and make repetitive hand movements; to lift, carry, push, and/or pull light to moderate amounts of weight; to operate assigned equipment and vehicles; to travel to other locations using various modes of private and commercial transportations; and to verbally communicate to exchange information

Vision:

See in the normal visual range with or without correction.

Hearing:

Hear in the normal audio range with or without correction.

Date Established: July 2023, Resolution No. 9215

Date Revised: