

# CITY OF SIMI VALLEY

## SENIOR 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, supervises, assigns, reviews and participates in the work of staff responsible for performing professional and technical engineering services; ensures work quality and adherence to established policies and procedures; provides specialized engineering services; and performs the more technical and complex tasks relative to assigned area of responsibility.

This is a broad classification with individual positions assigned to specific functional areas; duties and assignments may overlap depending on the operational needs of the department and staffing levels.

### **DISTINGUISHING CHARACTERISTICS**

This is the advanced journey level class in the professional 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 types of duties assigned to classes within this series including supervision of professional engineering staff and management of large and/or complex engineering projects. 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. Plan, prioritize, assign, supervise, review and participate in the work of staff responsible for providing professional engineering services.
2. Establish schedules and methods for providing engineering services; identify resource needs; review needs with appropriate management staff; allocate resources accordingly.
3. Participate in the development of policies and procedures; monitor work activities to ensure compliance with established policies and procedures; make recommendations for changes and improvements to existing standards and procedures.
4. Recommend and assist in the implementation of goals and objectives; implement approved policies and procedures.
5. Perform the more technical and complex tasks of the work unit including administration of construction and professional services contracts.
6. Prepare and/or review professional civil engineering designs for assigned projects utilizing a variety of computer software programs; perform detailed calculations and computations; prepare and/or review the adequacy and accuracy of computations, preliminary layouts and design work from field and survey data.
7. Assist construction inspectors in the interpretation of plans, specifications and other contract documents.

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8. Review and approve changes to approved plans and specifications; process a variety of permits.
9. Exercise professional engineering judgment in accordance with current accepted practice of civil engineering and appropriate laws and codes.
10. Participate in the selection of technical engineering staff; provide or coordinate staff training; work with employees to correct deficiencies; implement discipline procedures.
11. Participate in the preparation and administration of assigned engineering program budget; submit budget recommendations; monitor expenditures.
12. In support of assigned projects, assist in consultant evaluation and selection in the processing of request for proposal responses.
13. Coordinate, conduct meetings and interact with consultants, developers, contractors, the general public and City divisions and departments.
14. As assigned, serve as staff on a variety of commissions and committees; prepare and present staff reports and other necessary correspondence.
15. Attend and participate in professional group meetings; stay abreast of new trends and innovations in the field of municipal civil engineering.
16. Conduct field work as necessary.
17. Perform related duties as required.

**When assigned to Capital Projects:**

18. Supervise and participate in the work of lower level engineering staff in the preparation of project plans, specifications, cost estimates and contract administration for capital projects.
19. Supervise and participate in the inspection of capital projects; document construction activities; confer with contractors on construction progress; ensure compliance with applicable codes and regulations; provide resolutions to construction problems.
20. Oversee the bidding process for capital projects including receiving applications, awarding contracts and issuing notices.
21. Prepare and/or examine maps, deeds and legal descriptions for land acquisition and easement purposes.
22. Perform construction administration for assigned capital improvement projects; prepare, review, and analyze bid documents; award construction contracts; schedule and conduct pre-construction meeting; prepare and present staff reports and other correspondence as appropriate and necessary.
23. Prepare and coordinate federal and state procedures in the approval and obligations of funding for assigned projects.

**When assigned to Land Development:**

24. Supervise all aspects of design and construction of development projects involving public improvements and/or grading of land.

25. Review land development plans, subdivision maps and grading plans for compliance with applicable laws, codes and regulations.
26. Prepare conditions for land development projects for review and approval by the City Council and Planning Commission.
27. Oversee the implementation of the Flood Damage Prevention Ordinance and Subdivision Ordinance as it relates to Land Development.
28. Oversee and coordinate the implementation of the National Pollutant Discharge Elimination System (NPDES) – Stormwater Quality Management Program as it relates to land development construction activities; provide information, training, and oversight to developers, engineers, contractors and Public Works Inspectors to mitigate erosion, sediment, and pollutant transport, construction waste handling and disposal, and post-construction maintenance of facilities.
29. Oversee, maintain, and compile data in preparing the City's Annual Stormwater Report for private and public projects.

**When assigned to Utilities:**

30. Provide responsible sanitary and environmental engineering services for the planning, design, analysis, construction, operation and maintenance of the water quality control plant including the bar screen, grit chamber, primary clarifier, secondary aeration basin, clarifier, digester, dewatering process, filtering system, pump stations, sheet pile retaining walls and the disinfection system.
31. Monitor the water quality as it leaves the water quality control plant to ensure compliance with local, state, and federal water quality standards and discharge regulations, including the federal clean water act.
32. Prepare engineering drawings and specifications, costs and quantity estimates for utility related projects; obtain required easements or permits for water and sewer system construction and utility structures.
33. Respond to emergency situations including floods or earthquakes; maintain contact with FEMA/OES for reimbursement for repair of flood damaged sanitation facilities.
34. Perform construction management and inspection services as required.

**When assigned to Traffic:**

35. Oversee and participate in the work of staff responsible for performing a variety of traffic engineering duties including preparing signal, traffic signing and striping plans.
36. Perform field reviews of proposed construction site; obtain measurements and create preliminary plans for construction.
37. Attend and participate in community meetings regarding the impact of proposed construction; respond to citizen complaints and revise plans accordingly.
38. Conduct technical studies and prepare reports on traffic signal priorities, parking restrictions, striping and signing modification and speed surveys.
39. Supervise the adjustment and timing of isolated and interconnected signal systems; monitor traffic signal maintenance services.

40. Prepare conditions for traffic and roadways for review and approval by the City Council and Planning Commission; participate in traffic/transportation planning as necessary.
41. Review land development plans for compliance with applicable laws, codes, and regulations.

**When assigned to Building and Safety:**

42. Supervise and participate in the work of lower level engineering staff in the review of building construction plans for structural integrity and code compliance.
43. Supervise and participate in the review of engineering reports and cost estimates for construction in the floodplain.
44. Perform plan check for residential, commercial and industrial projects; make recommendations on engineering problems as necessary.
45. Supervise the review and assignment of address numbers to real properties in the City.
46. Provide supervision and participation in the operation of the public counter; supervise the use of appropriate computer software programs utilized to process building permits and to prepare monthly and quarterly reports.

**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 assigned municipal engineering program.
- Methods and techniques of engineering project management.
- Principles of supervision, training and performance evaluation.
- Modern and complex principles and practices of engineering construction.
- Principles and practices of civil engineering design.
- Principles and practices of project and construction management.
- Principles and practices of contract administration.
- Principles and practices of structural engineering and architecture.
- Terminology, methods, practices and techniques used in technical civil engineering report preparation.
- Design, construction, operation, and maintenance of water quality control plant, equipment and treatment process.
- Federal and state funding requirements, procedures and various applications.
- Principles and practices of budget preparation and control.
- Principles of mathematics as applied to engineering work.
- Recent developments, current literature and sources of information regarding civil engineering.
- Pertinent federal, state and local laws, codes and regulations.

**Ability to:**

- Supervise, organize and review the work of lower level staff.
- Select, supervise, train and evaluate staff.
- Manage large and complex engineering projects.
- Ensure project compliance with appropriate federal, state and local rules, laws and regulations.
- Coordinate phases of construction projects and prepare progress reports.
- Analyze problems, identify alternative solutions, project consequences of proposed actions, and implement recommendations in support of goals.
- Conduct comprehensive engineering studies and develop appropriate recommendations.

Perform technical research and solve difficult engineering problems.  
Prepare and maintain technical civil engineering records and prepare comprehensive reports.  
Compile rough technical data and prepare statistical and narrative reports from field studies.  
Develop, review and modify civil engineering plans, designs, and specifications.  
Exercise professional engineering judgment to achieve results consistent with objectives.  
Present projects to City Council.  
Interpret and explain City policies and procedures.  
Prepare clear and concise reports.  
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** - *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 a Bachelor's degree from an accredited college or university with major course work in engineering or architecture with specialized course work related to area of assignment.

**Experience:**

Four years of professional engineering experience related to area of assignment including one year of administrative and/or lead supervisory responsibility.

**License or Certificate:**

Possession of registration as a Professional Engineer in the State of California, or a licensed Architect in the State of California (when assigned to Building & Safety)

Possession of, or ability to obtain, an appropriate, valid driver's license.

Possession of, or ability to obtain, a Plans Examiner certificate may be required depending on area of assignment.

**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:** Office and field environment; travel from site to site; works with computers; exposure to noise and poisonous gases and liquids.

**Physical:** Sufficient physical ability to work in an office setting and operate office equipment; sit, stand, and walk for prolonged periods of time; climb ladders and slopes; operate motorized vehicles.

**Vision:** See in the normal visual range with or without correction; vision sufficient to read computer screens and printed documents and to operate vehicles.

**Hearing:** Hear in the normal audio range with or without correction.