

Oro Loma Sanitary District
2600 Grant Avenue
San Lorenzo, CA 94580
(510) 276-4700

SENIOR ENGINEER

DEFINITION

Under general direction of the District Engineer, the Senior Engineer will perform complicated professional engineering work related to the wastewater treatment plant and collection system. This includes designing and management of capital projects, participation in planning capital budgets, and serving as the District Engineer during his absence.

SUPERVISION EXERCISED

May exercise technical and functional supervision.

IMPORTANT AND ESSENTIAL DUTIES

1. Conduct in-house engineering pre-design and prepare estimates and feasibility reports for new or to be modified facilities and structures.
2. Conduct in-house engineering design for new installation and repairs and upgrades to existing facilities.
3. Prepare engineering drawings using CAD and/or conventional drafting equipment.
4. Prepare plans, specifications and contract documents for public and competitive bid projects.
5. Provide technical input to treatment plant and collection system staff on operations and modifications, including lift stations, sewer mains, collection systems, and related projects.
6. Coordinate capital improvement program projects, including studies, design engineering, work of consultants, requests for proposals and inspection.
7. Prepare or direct the preparation of progress payments, change orders, complete reports, including text, charts, maps, diagrams, and sketches on engineering subjects of substantial difficulty.
8. Assign routine investigation, design, and drafting tasks to technical subordinates; request survey, mapping, and data collection; review completed work; assist in finding solutions to difficult problems.
9. Prepare project status reports and make oral and written presentations.

10. Design and maintain spreadsheets and databases on computers; write and maintain special programs on computers.
11. Provide engineering training and professional development training for other District personnel.
12. Advise District Engineer on status and technical issues related to assigned design work and projects.
13. Research publications and industry information sources to remain current with modern developments, principles, and procedures.
14. Negotiate construction contracts with consultants, contractors, and other professionals.

OTHER JOB RELATED DUTIES

1. Direct activities of internal and external inspectors as required on projects or as required by the District Engineer.
2. Provide customer service at the Engineering Counter and by telephone as required.
3. Investigate field problems affecting property owners, contractors, and maintenance operations.
4. Participate in the planning, checking, review, and processing of plans for private developments affecting sewers and related District facilities and ensure that they meet all District-imposed requirements; analyze materials and design data submitted to the District.
5. Prepare various applications for State and Federal grants.
6. Determine conformance of parcel and subdivision maps and improvement plans to District requirements; maintain status of parcel and subdivision maps.
7. Perform related duties as required.

JOB RELATED AND ESSENTIAL QUALIFICATIONS

Knowledge of:

- Principles and practices of leadership, motivation, and conflict resolution.
- Engineering principles and practices as applied to wastewater treatment facilities and collection systems.
- Specific expertise of civil, structural, and hydraulic engineering and general understanding of electrical and mechanical engineering.
- Methods and techniques used in construction of a wide variety of engineering projects.

- Applicable laws and regulatory codes relevant to wastewater system design, construction, and operation.
- Methods, techniques, and procedures used in engineering project management, including Critical Path Method (CPM), Performance Evaluation Review Technique (PERT), and Present Worth of Expenditures Analysis.
- Contract administration practices and principles as they relate to construction work, including development of specifications, evaluation of bids, contract monitoring, and negotiation procedures.
- Public agency bidding, contracting, and purchasing.
- Safety hazards and appropriate precautions applicable to work assignments.

Skill to:

- Operate modern engineering equipment including computer equipment.
- Operate a motor vehicle safely.

Ability to:

- Understand and carry out complex oral and written instructions and schedule and oversee the work of others.
- Operate computer-aided drafting and design software.
- Coordinate the work of technical personnel.
- Negotiate contracts and change orders.
- Recommend and assist in the implementation of goals, objectives, and practices for providing effective and efficient engineering design services.
- Manage large, complex projects to completion within scheduled timelines.
- Estimate engineering and construction costs; prepare bid specifications.
- Prepare and administer large project budgets.
- Prepare clear and concise administrative and financial reports.
- Analyze problems, identify alternative solutions and project consequences of proposed actions and implement recommendations in support of goals.
- Interpret and apply Federal, State, and local policies, procedures, laws and regulations particularly in contract administration.
- Communicate clearly and concisely, both orally and in writing.

- Establish, maintain, and foster positive and harmonious working relationships with those contacted in the course of work.

Experience and Training Guidelines:

Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Experience:

Five years of experience in civil or sanitary engineering; experience with management of wastewater treatment plant or collection system projects desirable.

Training:

Equivalent to a Bachelors degree from an accredited college or university with major course work in civil engineering, sanitary engineering or related field.

License or Certificate:

Possession of a Certificate of Registration as a Professional Engineer issued by the California State Board of Registration.

Possession of a valid driver's license, and a motor vehicle record which meets the District's driving standards.

Special Requirements:

The physical demands and work environment described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is frequently required to stand; walk; sit; use hands to finger, handle, or feel; reach with hands and arms; stoop, keep, crouch, or crawl; and talk or hear. The employee must occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance vision, depth perception, and ability to adjust focus. Additionally, the employee is occasionally exposed to outside weather conditions. The noise level when working in the field is usually loud.

Effective Date: September 2020