



Title: Senior Civil Engineer

FLSA Status: Exempt

BRIEF DESCRIPTION:

The purpose of this position is to plan, design, and direct civil engineering projects such as railway track and substructure, stations, roads, drainage, structures, and other transit facilities. This is accomplished by planning and supervising all phases of the engineering and design programs, analyzing reports, maps, drawings, blueprints, tests, and photographs on geographic and topological data to plan and design projects, coordinating various governmental agencies, and administering consultant contracts.

ESSENTIAL FUNCTIONS:

Note: This information is intended to be descriptive of the key responsibilities of the position. The list of essential functions below does not identify all duties performed by any single incumbent in this position. Additionally, please be aware of the legend below when referring to the physical demands of each essential function.

| | | | | |
|---|---|--|---|---|
| (S) Sedentary Exerting up to 10 lbs. occasionally or negligible weights frequently; sitting most of the time. | (L) Light Exerting up to 20 lbs. occasionally; 10 lbs. frequently; or negligible amounts constantly; OR requires walking or standing to a significant degree. | (M) Medium Exerting 20-50 lbs. occasionally; 10-25 lbs. frequently; or up to 10 lbs. constantly. | (H) Heavy Exerting 50-100 lbs. occasionally; 10-25 lbs. frequently; or up to 10-20 lbs. constantly. | (V) Very Heavy Exerting over 100 lbs. occasionally; 50-100 lbs. frequently; or up to 20-50 lbs. constantly. |
|---|---|--|---|---|

| # | Code | Essential Functions | % of Time |
|---|------|---|-----------|
| 1 | S | Performs civil engineering design by supervising and participating in the preparation of contract plans and technical specifications, designing main line, yard track, and facility layout to meet existing design criteria, delegating drafting tasks to technical subordinates, performing complex calculations, performing field surveys, researching project design requirements, and calculating costs and determining feasibility of design projects based on analysis of collected data. | 65% |
| 2 | L | Performs construction support by reviewing technical submittals of shop drawings, interpreting contract plans and technical specifications, inspecting construction sites, investigating field problems affecting property owners, contractors, and maintenance operations, resolving issues such as grading and drainage, coordinating several agencies to resolve issues, and responding to requests for information and qualifications and work orders. | 10% |
| 3 | S | Creates permit applications by preparing and submitting PUC, street abandonment, encroachments permits, and notice of intent applications and exhibits. | 5% |



| | | | |
|---|---|---|-----|
| 4 | S | Supervises staff by planning and directing the work of professional engineers, assigning and monitoring technician workloads, preparing performance evaluations, and reviewing timesheets. Provides project management by developing the Request for proposals for selection of consultants, and contract management. | 20% |
|---|---|---|-----|

JOB REQUIREMENTS:

| -Description of Minimum Job Requirements- | |
|---|--|
| Formal Education | Work requires broad knowledge in a general professional or technical field. Knowledge is normally acquired through four (4) years of an accredited college or university resulting in a Bachelor's degree or equivalent in Engineering. Substitution of experience for the required education is not accepted. |
| Experience | A minimum of five (5) years of experience in engineering design, construction or management. One (1) year of lead or supervisory experience is preferred. Experience in transportation or transit facilities is preferred. |
| Supervision | Work requires supervising and monitoring performance for a regular group of employees or department including providing input on hiring/disciplinary actions and work objectives/ effectiveness, performance evaluations, and realigning work as needed. |
| Human Collaboration Skills | Decisions regarding implementation of policies may be made. Contact may involve support of controversial positions or the negotiation of sensitive issues or important presentations. Contacts may involve stressful, negative interactions with the public requiring high levels of tact and the ability to respond to aggressive interpersonal interactions. |
| Freedom to Act | The employee normally performs the job by following established standard operating procedures and/or policies. There is a choice of the appropriate procedure or policy to apply to duties. Performance reviewed periodically. |
| Technical Skills | Advanced: Work requires advanced skills and knowledge in approaches and systems, which affect the design and implementation of major programs and/or processes organization-wide. Independent judgment and decision-making abilities are necessary to apply technical skills effectively. |
| Budget Responsibility | Position has moderate fiscal responsibility. May be responsible for the billing, collection and/or accounting of funds. |
| Reading | Advanced - Ability to read literature, books, reviews, scientific or technical journals, abstracts, financial reports, and/or legal documents. Ordinarily, such education is obtained in at the college level or above. However, it may be obtained from experience and self-study. |



| | |
|------------------------------------|--|
| Math | Advanced - Ability to apply fundamental concepts of theories; work with advanced mathematical operations methods and functions of real and complex variables. Ordinarily, such education is obtained in at the college level or above. However, it may be obtained from experience and self-study. |
| Writing | Advanced - Ability to write editorials, journals, speeches, manuals, or critiques. Ordinarily, such education is obtained in at the college level or above. However, it may be obtained from experience and self-study. |
| Certification & Other Requirements | Professional Engineer license in the State of California is required. |

| KNOWLEDGE |
|--|
| <ul style="list-style-type: none"> • Civil engineering related to utilities, storm drainage facilities, and structures. • Construction materials, methods, and processes. • Design submittals and proof of design and acceptance testing to validate safety certification. • Engineering principles, theory, and practices relating to design, specification writing, and estimating. • Project planning and management principles, theory, and practices. • Public outreach principles, theory, and practices. • Teamwork principles, theory and practices. • Project controls functions. • Responsibilities of design team members in construction projects. • Uniform Building Code as stations and buildings. • Americans with Disabilities Act Accessibility Guidelines and related California State requirements. • CPUC requirements for approval of rail-highway grade crossings. • Standards outlined in CalTrans, PUC, AREMA, and ANSI/ASME. • Personnel management principles, theories, and practices. • Principals of supervision, training, and employee development. • Project development phases of work including NEPA and CEQA requirements. • Federal, State and local grant processes and requirements. |

| SKILLS |
|--|
| <ul style="list-style-type: none"> • Advanced word processing, spreadsheet, presentation and database software. • Specialized software related to functional area. |



ABILITIES

- Develop and administer a project budget.
- Establish, monitor, and control projects and schedules.
- Plan, organize, supervise, and review the work of staff and consultants.
- Provide technical advice to professional and technical staff in solving complex environmental issues, regulations and compliance problems.
- Supervise the collection, analysis, and interpretation of environmental data and information.
- Participate in technical research on planning, environmental, economic, and transportation problems.
- Learn civil engineering related to track work and station design.
- Understand light rail transit systems, facilities, and operations.
- Learn Federal Transportation Improvement Plan grant process and requirements.
- Learn the District's policies, procedures, plans, programs, and performance criteria.
- Represent the District in meetings with other governmental agencies and the public.
- Coordinate District projects with utilities, governmental agencies and private property owners as required.
- Develop clear, complete, and accurate engineering specifications, drawings, and estimates within mutually established timelines.
- Discuss and identify project problems, analyze situations, recommend solutions, and evaluate outcomes.
- Communicate effectively, both orally and in writing, with various levels of employees, public officials, and outside representatives at all skill levels, position levels, and backgrounds.
- Interpret, review, and approve design submittals, including drawings, descriptions, and schematics.
- Make field and site inspections for problem investigation.
- Monitor and direct consultant/contractor performance to meet project milestones and maintain high quality.
- Manage consultant contracts; including review of invoices for accuracy of work performed vs. billed.
- Principles of supervision, training and employee development.
- Write issue papers for presentation to the Board of Directors and technical reports.
- Provide leadership and mentor less experienced engineers.
- Solve complex technical problems with innovative solutions.
- Provide excellent customer service.
- Establish and maintain cooperative working relationships.



OVERALL PHYSICAL STRENGTH DEMANDS:

-Physical strength for this position is indicated below with "X"-

| Sedentary | Light | Medium | Heavy | Very Heavy |
|---|--|---|---|--|
| X | | | | |
| Exerting up to 10 lbs. occasionally or negligible weights frequently; sitting most of the time. | Exerting up to 20 lbs. occasionally, 10 lbs. frequently, or negligible amounts constantly OR requires walking or standing to a significant degree. | Exerting 20-50 lbs. occasionally, 10-25 lbs. frequently, or up to 10 lbs. constantly. | Exerting 50-100 lbs. occasionally, 10-25 lbs. frequently, or up to 10-20 lbs. constantly. | Exerting over 100 lbs. occasionally, 50-100 lbs. frequently, or up to 20-50 lbs. constantly. |

PHYSICAL DEMANDS:

| C | F | O | R | N |
|--------------------------|------------------------------|------------------------|----------------------------|---------------|
| Continuously | Frequently | Occasionally | Rarely | Never |
| 2/3 or more of the time. | From 1/3 to 2/3 of the time. | Up to 1/3 of the time. | Less than 1 hour per week. | Never occurs. |

Note: This is intended as a description of the way the job is currently performed. It does not address the potential for accommodation.

| -Physical Demand- | -Frequency- | -Brief Description- |
|---------------------------------|-------------|--|
| Standing | O | Making presentations; Observing work site and work duties; communicating with co-workers |
| Sitting | C | Desk work; meetings; driving |
| Walking | O | To other departments/offices; around work site |
| Lifting | R | Supplies; equipment; files |
| Carrying | R | Supplies; equipment; files |
| Pushing/Pulling | R | File drawers; tables and chairs |
| Reaching | R | For supplies and files |
| Handling | O | Paperwork |
| Fine Dexterity | F | Computer keyboard; telephone keypad; calculator |
| Kneeling | R | Filing in lower drawers; retrieving items from lower shelves/ground |
| Crouching | R | Filing in lower drawers; retrieving items from lower shelves/ground |
| Crawling | N | None |
| Bending | R | Filing in lower drawers; retrieving items from lower shelves/ground |
| Twisting | O | From computer to telephone; getting inside vehicle |
| Climbing | R | Stairs, ladders |
| Balancing | R | On ladders, On step stools |
| Vision | C | Reading; computer screen; driving; observing work site |
| Hearing | F | Communicating via telephone/radio; to co-workers/public |
| Talking | O | Communicating via telephone/radio; to co-workers/public |
| Foot Controls | O | Driving |
| Other (specified if applicable) | N | None |

MACHINES, TOOLS, EQUIPMENT, SOFTWARE, AND HARDWARE:

Telephone, fax machine, calculator, copier, automobile, survey equipment, computer and associated hardware and software.



ENVIRONMENTAL FACTORS:

| | | | | |
|--------------------------|------------------------|--------------------------|--------------------|-------------------|
| C Continuously | F Frequently | O Occasionally | R Rarely | N Never |
|--------------------------|------------------------|--------------------------|--------------------|-------------------|

| | | | | |
|-------------------|--|---|------------------------|-------------------|
| D Daily | W Several Times Per Week | M Several Times Per Month | S Seasonally | N Never |
|-------------------|--|---|------------------------|-------------------|

| -Health and Safety Factors- | |
|-----------------------------|---|
| Mechanical Hazards | N |
| Chemical Hazards | N |
| Electrical Hazards | N |
| Fire Hazards | N |
| Explosives | N |
| Communicable Diseases | N |
| Physical Danger or Abuse | N |
| Other (see 1 below) | N |

| -Environmental Factors- | |
|-------------------------|---|
| Respiratory Hazards | N |
| Extreme Temperatures | S |
| Noise and Vibration | N |
| Wetness/Humidity | N |
| Physical Hazards | N |

(1) N/A

PROTECTIVE EQUIPMENT REQUIRED: Hard hat, safety eyewear, reflective safety vest, safety boots, hearing protection and gloves.

NON-PHYSICAL DEMANDS:

| | | | |
|---|---|---|-----------------------------------|
| F Frequently From 1/3 to 2/3 of the time | O Occasionally Up to 1/3 of the time | R Rarely Less than 1 hour per week | N Never Never occurs |
|---|---|---|-----------------------------------|

| -Description of Non-Physical Demands- | -Frequency- |
|---|-------------|
| Time Pressure | O |
| Emergency Situation | R |
| Frequent Change of Tasks | O |
| Irregular Work Schedule/Overtime | O |
| Performing Multiple Tasks Simultaneously | F |
| Working Closely with Others as Part of a Team | F |
| Tedious or Exacting Work | R |
| Noisy/Distracting Environment | O |
| Other (see 2 below) | N |

(2) N/A

PRIMARY WORK LOCATION:

| | | | |
|--------------------------------|---|---------------------|--|
| Office Environment | X | Vehicle | |
| Warehouse | | Outdoors | |
| Shop | | Other (see 3 below) | |
| Recreation/Neighborhood Center | | | |

(3)N/A

The above statements are intended to describe the general nature and level of work being performed by individuals assigned to this position. They are not intended to be an exhaustive list of all responsibilities, duties, and skills required. This description is subject to modification as the needs and requirements of the position change.