



USUAL & CUSTOMARY JOB ANALYSIS/DESCRIPTION

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| JOB TITLE: | Director of Engineering & Field Operations |
| DEPARTMENT: | Engineering |
| EMPLOYER: | Vallejo Sanitation and Flood Control District 450 Ryder Street, Vallejo, California 94590 |
| DATE PREPARED: | |
| WORK SCHEDULE/HOURS: | 9/80, 4 to 5 days per week, 8 to 9 hours per day. |
| EMPLOYEE: | |
| D/I: | |
| CLAIM NUMBER: | |

Employer's Business: The employer, Vallejo Sanitation and Flood Control District, is a government agency responsible for the collection and treatment of wastewater from the sanitary sewer system and the protection from storm water.

Job Functions

Overview:

This is a management position. This is an advanced professional engineering position responsible for the administration and supervision of the day to day functions and operation of the Engineering and Field Operations Divisions of the District. This position is also known as the District Engineer and approves all engineering plans for improvements to be accepted by the District. Under general direction of the District Manager, this position is responsible for engineering assignments of a complex nature in areas of sanitary and storm drain design, construction, operation and maintenance. The primary responsibilities of this position include extensive knowledge of sanitary or civil engineering and basic knowledge, abilities, and experience of administration in a public agency. This person gives Engineering policy guidance and interpretation to subordinates and when applicable to other District departments.

- The employee assists the District Manager in developing projects and project schedules for the capital improvement program.
- The employee assists the District Manager in gathering technical information from and for other governmental agencies.
- The employee assists the District Manager in reviewing and developing policies and standards as they pertain to the engineering function of the District.
- The employee assists in the development of the annual operating budget for the Engineering Division.
- The employee assists in the development and the administration of consultant design contracts and construction contracts.
- The employee administers engineering and construction contracts including development of documents, change orders, progress payments and inspections.
- The employee prepares and administers reviews of development plan submittals, checks and reviews construction plans of District projects and recommends changes to the District Manager.
- The employee supervises and coordinates the work of other engineers and technical staff in performing the Engineering Division functions.
- The employee assists Facilities Maintenance Division in locating lines, making repairs and in construction of District facilities.
- The employee provides information for the preparation of agenda for Board of Trustees.

- The employee assists in the preparation of technical standards.
- The employee prepares and reviews civil engineering plans, including the more complex plans and specifications.
- The employee performs complex engineering analysis related to sanitary sewer and storm drainage facilities.
- The employee serves as resident engineer for District construction projects as a task basis.
- The employee reviews and supervises work of other employees as directed.
- The employee reviews and comments upon development proposals.
- The employee coordinates and works with consultants working for the District and with other agencies on various projects.
- The employee communicates with the public and other engineers about matters for which the employee has specific responsibility.
- The employee prepares reports, letters and other written material related to the work.
- The employee utilizes a computer and applicable programs in performance of duties.
- The employee prepares project cost estimates.
- The employee utilizes a computer keyboard, mouse and views a monitor to enter or retrieve data including word processing, memos, plan review, utilizing the GIS system, researching, etc.
- The employee utilizes writing utensils to review and write on engineering plans, makes annotations, completes notes, messages.
- The employee checks and reviews engineering plans. This includes retrieving paper plans from open shelves or drawers, transports and places the plans on a drafting table to read/review.
- The employee utilizes a telephone handset to communicate with coworkers, different departments, agencies, the public, etc. This includes retrieving the telephone handset, pressing 7 to 10 telephone buttons and verbally communicating with the desired party.
- The employee operates a District vehicle equipped with an automatic transmission to travel to and from local or Bay sites, approximately 2 to 4 times per week. Includes ascending one step, maneuvering a steering wheel, pressing 2 foot pedals (accelerator and brake) in conjunction with using a cushioned seat. Field duties include visiting construction sites to inspect.
- The employee, as needed, attends meetings with coworkers, developers, contractors, consultants and other related agencies.
- The employee visits construction sites, the employee as needed utilizes a digital camera to take site pictures.

Marginal Functions:

- The employee utilizes a standard copy machine to make copies. This entails opening/closing the copier door (upward/downward motion, exertion 5 pounds), placing individual sheets on the copier and pressing buttons to activate the machine. Alternatively, the employee may place a stack of papers on copier tray and press buttons to activate the machine.
- The employee utilizes a fax machine. This entails setting individual papers in the fax machine, pressing 7-10 numbers to connect to the desired telephone numbers and pressing a button to activate the fax.
- The employee retrieves and sets files/paperwork in and out of file cabinet drawers.

Minimum Qualifications**EDUCATION & EXPERIENCE**

- Bachelor of Science Degree in Civil Engineering from a college or university of recognized standing with major coursework in civil, sanitary or hydraulic engineering. A minimum of 6 years responsible or related work preferably with a public agency.

KNOWLEDGE, SKILLS & ABILITIES

- Knowledge of correct and applicable English usage and spelling
- Knowledge of engineering, administrative and government agency terms
- Knowledge of computers and applicable programs to wastewater and storm drain fields of engineering
- Knowledge of design and plan review criteria and practices
- Knowledge of budgeting methods
- Must be able to walk on uneven surfaces
- Must be able to communicate with irate or difficult people
- Must be able to accept constructive criticism from supervisors, coworkers and subordinate employees
- Knowledge of correct Business English, including spelling, grammar and punctuation.
- Knowledge of techniques for dealing with the public, in person and over the phone.
- Ability to effectively supervise department staff to meet department and District benchmarking goals.

LICENSE(S)

- Must be a licensed Civil Engineer in the State of California
- Must possess a valid Class C California Driver's License at the time of employment. The ability to drive District vehicles is a specific requirement for this position. For that reason, it is the employee's responsibility to maintain a driving record that is acceptable to the District's insurance carrier or be subject to dismissal.

Physical Demands

For the purpose of determining frequency of activity, this job analyst refers to an eight-hour workday.

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| STANDING | Frequency: Duration: Surfaces: Associated Tasks: | Less than 1 hour. Seconds to less than 15 minutes at a time. Predominantly tile, carpet, possible dirt, gravel, concrete. Visiting construction sites, utilizing office equipment, taking pictures at field sites, making presentations. |
| WALKING | Frequency: Duration: Surfaces: Associated Tasks: | Less than 1 to 2 hours. Seconds to less than 5 minutes at a time. Predominantly tile, carpet, possible dirt, gravel, concrete. Within the building, to and from office, visiting field sites. |
| SITTING | Frequency: Duration: Surfaces: Associated Tasks: | 5 to 6 hours. Less than 1 to 2 hours. Cushioned office chair, vehicle seat. Driving to and from field sites, working at a desk station utilizing a computer, keyboard, mouse, monitor, telephone, reading, writing. |
| CROUCHING/ SQUATTING | Frequency: Duration: Surfaces: Associated Tasks: | Less than 5 times. Seconds at a time. Tile, carpet. Retrieving or setting items in and out of file cabinet drawers including files, plans. |
| CRAWLING | Frequency: Duration: Surfaces: Associated Tasks: | Not a job requirement. |
| LAYING ON BACK/STOMACH | Frequency: Duration: Surfaces: Associated Tasks: | Not a job requirement. |
| CLIMBING/ BALANCING | Frequency: Duration: Surfaces: Associated Tasks: | 0 to 2 times per month. Seconds at a time. Stair steps. As needed, ascending or descending stair steps at the plant site. |

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| BENDING | | |
| • Waist: | Frequency: Duration: Associated Tasks: | Alternated with squatting, employee preference. |
| • Head/Neck: | Frequency: Duration: Associated Tasks: | 2 to 3 hours. Seconds to less than 5 minutes at a time. During normal body mechanics, aiding visually, reading, writing, including plans. |
| • Wrists: | Dominant Hand: Frequency Dominant: Non-Dominant: Bilateral: Duration: Associated Tasks: | 2 to 3 hours. Less than 1 hour. Less than ½ hour. 1 to 2 hours. Seconds to less than 15 minutes at a time. Normal body mechanics, handling paperwork, files, plans, driving in conjunction with maneuvering a steering wheel. |

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| TWISTING/ROTATING | | |
| • Waist: | Frequency: Duration: Associated Tasks: | Less than 15 minutes. Seconds at a time. Possibly while driving. The motion is center to the right back to center or center to the left back to center up to 10-degrees. |
| • Head/Neck: | Frequency: Duration: Associated Tasks: | Up to 1 hour. Seconds at a time. Aiding visually, possibly while driving, during normal body mechanics. The motion is center to the right back to center or center to the left back to center up to 35-degrees. |
| • Wrists: | Dominant Hand: Frequency Dominant: Non-Dominant: Bilateral: Duration: Associated Tasks: | Not a job requirement. |

UPPER EXTREMITY USE: Dominant Hand: [indicate LEFT or RIGHT]

| REACHING | | |
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| <ul style="list-style-type: none"> • Primary Reach Zone: (elbows bent at waist level, hands in forward extension) | Frequency Dominant: Non-Dominant: Bilateral: Duration: Associated Tasks: | 1 to 2 hours. Less than ½ hour. 0 1 to 1 ½ hours. Seconds to less than 15 minutes at a time. Utilizing a pointing device, computer keyboard. |
| <ul style="list-style-type: none"> • Above Shoulder Level | Frequency Dominant: Non-Dominant: Bilateral: Duration: Associated Tasks: | Less than 5 times. Alternated with bilateral. Alternated with bilateral. Less than 5 times. Seconds at a time. Retrieving items including paperwork from upper shelves. |
| <ul style="list-style-type: none"> • Between Waist and Shoulder Level | Frequency Dominant: Non-Dominant: Bilateral: Duration: Associated Tasks: | 3 to 4 hours. 1 to 2 hours. Less than 1 hour. 2 to 3 hours. Seconds to less than 15 minutes at a time. Driving in conjunction with maneuvering a steering wheel, utilizing a telephone handset, handling plans, files. |
| <ul style="list-style-type: none"> • Below Waist Level | Frequency Dominant: Non-Dominant: Bilateral: Duration: Associated Tasks: | Alternated with squatting. |
| PUSHING/ PULLING | Frequency Dominant: Non-Dominant: Bilateral: Duration: Associated Tasks: | Less than 10 times. Less than 10 times. Alternated with dominant. Alternated with dominant. Seconds at a time. Opening or closing file cabinet or plan drawers. |

| LIFTING/CARRYING | | |
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| <ul style="list-style-type: none"> • 0 to 10 lbs. | Objects: Frequency Dominant: Non-Dominant: Bilateral: Distance: Height: Associated Tasks: | Writing utensil, plans, paperwork, files, telephone handset. 2 to 3 hours. Less than 1 hour. Less than ½ hour. 1 to 2 hours. 0 to less than 50 feet. Knee to chest level. Utilizing a writing utensil to complete paperwork, telephone handset, handling paperwork, plans. |
| <ul style="list-style-type: none"> • 11 to 25 lbs. | Objects: Frequency Dominant: Non-Dominant: Bilateral: Distance: Height: Associated Tasks: | Plans, paperwork. 1 time per week. 0 0 1 time per week. Less than 10 feet. Ground to waist level. As needed, retrieves and relocates a box of paperwork or plans. |
| <ul style="list-style-type: none"> • 26 to 50 lbs. | Objects: Frequency Dominant: Non-Dominant: Bilateral: Distance: Height: Associated Tasks: | Box of paperwork. 1 time per week. 0 0 1 time per week. Less than 10 feet. Ground to waist level. The employee, as needed, retrieves and relocates a box of paperwork. |
| <ul style="list-style-type: none"> • 51 to 75 lbs. | Objects: Frequency Dominant: Non-Dominant: Bilateral: Distance: Height: Associated Tasks: | Not a job requirement. |
| <ul style="list-style-type: none"> • 75 to 100 lbs. | Objects: Frequency Dominant: Non-Dominant: Bilateral: Distance: Height: Associated Tasks: | Not a job requirement. |
| <ul style="list-style-type: none"> • 100+ lbs. | Objects: Frequency Dominant: Non-Dominant: Bilateral: Distance: Height: Associated Tasks: | Not a job requirement. |

| HAND DEMANDS | | |
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| <ul style="list-style-type: none"> • Simple Grasping | Frequency: Dominant: Non-Dominant: Bilateral: Duration: Associated Tasks: | 2 to 3 hours. Less than 1 hour. Less than ½ hour. 1 to 2 hours. Seconds to less than 15 minutes at a time. Driving in conjunction with maneuvering a steering wheel, utilizing telephone handset, handling plans, paperwork. |
| <ul style="list-style-type: none"> • Power Grasping | Frequency: Dominant: Non-Dominant: Bilateral: Duration: Associated Tasks: | 1 time per month. 0 0 1 time per month. Seconds at a time. Retrieving and relocating a box of paperwork. |
| <ul style="list-style-type: none"> • Fine Manipulation | Frequency: Dominant: Non-Dominant: Bilateral: Duration: Associated Tasks: | 3 to 4 hours. 1 ½ to 2 hours. 0 2 to 3 hours. Seconds to less than 15 minutes at a time. Utilizing a computer keyboard, pointing device. |

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| SPECIAL ENVIRONMENT | <ul style="list-style-type: none"> • Outdoors all weather conditions, infrequent • Indoors, climate controlled office setting |
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| MACHINES/TOOLS | <ul style="list-style-type: none"> • District vehicle • Printer • Computer keyboard, mouse, monitor • Writing utensil • Copier machine • Telephone • Fax machine |
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Note: The following are not physical requirements of this job: kneeling, crawling, laying on back/stomach.

ADDITIONAL REQUIREMENTS: The employee, as needed, when visiting construction/field sites and depending on the exposure, is required to wear foot, eye, hearing and head protection.

