



USUAL & CUSTOMARY JOB ANALYSIS/DESCRIPTION

JOB TITLE:	Senior Engineering Technician
DEPARTMENT:	Engineering
EMPLOYER:	Vallejo Sanitation and Flood Control District 450 Ryder Street, Vallejo, California 94590
DATE PREPARED:	1/15/2004
WORK SCHEDULE/HOURS:	8 hours per day, 5 days per week
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:

Under general supervision of the Director of Engineering and Field Operations, to perform routine and advanced technical office and field inspection work along with related tasks as assigned. This is an advanced technical position. Employees in this class will typically perform office and field tasks with general direction as to the results expected and/or the procedure to be followed. Knowledge of basic engineering and contract inspection concepts is expected. Communication with the public and other agencies will involve some interpretation of District programs and policies. Supervision will be exercised over others on a task by task basis.

Essential Functions:

- The employee performs informal field surveys at direction of District engineering staff.
- The employee performs mathematical and engineering calculations for contract payments, legal descriptions, quantity estimates and minor plan reviews.
- The employee assists in overseeing inspections by others of District facilities.
- The employee prepares and reviews legal descriptions and plats.
- The employee reviews development plans involving minor development.
- The employee prepares and updates inspection forms and procedures.
- The employee reviews and comments on specifications and plans from an Inspector's viewpoint.
- The employee gathers and interprets technical data.
- The employee assists in preparation of minor District projects.
- The employee prepares letters and reports related to assigned tasks.
- The employee utilizes a computer keyboard, mouse and views a monitor to enter or retrieve data including report completion, correspondence, drafting and other related tasks.

- 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 drafting equipment including scales, rulers, a compass (ounces) etc., to review plans, a calculator to assess plans for mathematical accuracy, writing utensils to mark or correct plans.
- The employee retrieves and sets paperwork/files in and out of file cabinet drawers positioned underneath the work surface.
- 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 city vehicle equipped with an automatic transmission to travel field sites. Includes ascending one step, maneuvering a steering wheel, pressing 2 foot pedals (accelerator and brake) in conjunction with using a cushioned seat.
- The employee, as needed, attends meetings with coworkers, developers, contractors, consultants and other related agencies.
- The employee visits and inspects field sites, the employee as needed utilizes a digital camera to take site pictures.
- The employee inspects equipment including making necessary observations, checks fittings, and other related equipment.
- The employee as needed ascends/descends extension ladders to access a roof top or a trench (<4-15').
- The employee assists customers at the front counter, includes retrieving needed paperwork and answering questions.

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, dialing 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

- Graduation from high school or equivalent. Seven years of experience in technical engineering work with sufficient variety of office and field experience as would provide a basis for accomplishing the work required in this position.
- Minimum of two (2) years college work in civil engineering preferred.

KNOWLEDGE, SKILLS & ABILITIES

- Knowledge of correct Business English, including spelling, grammar and punctuation.
- Ability to prepare reports
- Ability to work under general direction
- Ability to understand District policy
- Ability to understand District specifications
- Ability to research District records
- Ability to read engineering plans, specifications and reports
- Ability to utilize a computer and applicable programs for inspection and wastewater and storm drains
- Knowledge and ability to perform drafting
- Ability to maintain skills and knowledge. Evidence of this consists in obtaining EIT, LSIT certificates or completion of course work in collection system maintenance and continuing to take a variety of job relevant continuing education courses
- Must be able to walk on uneven surfaces
- Must be able to work in inclement weather
- Must be able to communicate with irate or difficult people
- Must be able to accept constructive criticism from supervisors, coworkers and subordinate employees

LICENSE(S)

- An Engineer-in Training Certificate or a Land Surveyor-in-Training Certificate is desirable.
- 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.

STANDING	Frequency: Duration: Surfaces: Associated Tasks:	2 to 3 hours. Seconds to less than 5 minutes at a time. Predominantly tile, carpet, possible dirt, gravel, concrete. Visiting construction sites, utilizing office equipment, taking pictures at field sites, making field observations, assessing measurements.
WALKING	Frequency: Duration: Surfaces: Associated Tasks:	2 to 3 hours. Seconds to less than 5 minutes at a time. Predominantly tile, carpet, possible dirt, gravel, concrete. Within the office, to and from constructions sites, making field observations.
SITTING	Frequency: Duration: Surfaces: Associated Tasks:	2 to 3 hours. Less than ½ hour to 1 hour at a time. 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, reviewing plans.
CROUCHING/ SQUATTING	Frequency: Duration: Surfaces: Associated Tasks:	Less than 10 times. Seconds at a time. Tile, carpet. Retrieving or setting items in and out of file cabinet drawers including files, plans, assessing field measurements.
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 10 times. Seconds at a time. Stair steps. As needed, ascending or descending stair steps at the plant site or an extension ladder to access a roof top or trench.

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, making field observations.
• 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, utilizing a torque wrench, flashlight or tape measurer to assess a measurement.

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, performing field observations. 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.

LIFTING/CARRYING		
<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, drafting instruments, rulers, scales. 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, utilizing drafting instruments, 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		
<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. Less than 1 hour. 0 2 to 3 hours. Seconds to less than 15 minutes at a time. Utilizing a computer keyboard, pointing device, telephone, writing utensil.

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 • Tape measure • Printer 	<ul style="list-style-type: none"> • Computer keyboard, mouse, monitor • Writing utensil 	<ul style="list-style-type: none"> • Copier machine • Flashlight • Telephone 	<ul style="list-style-type: none"> • 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.

EMPLOYER COMMENTS:	
This Job Analysis accurately represents the duties of a Senior Engineering Technician to the best of my knowledge.	
EMPLOYER CONTACT NAME:	
EMPLOYER SIGNATURE:	DATE:

EMPLOYEE COMMENTS:	
This Job Analysis accurately represents the duties of a Senior Engineering Technician to the best of my knowledge. I understand that I cannot add hours to the physical demands breakdown if the total would then be greater than the number of hours in an average workday.	
EMPLOYEE NAME:	
EMPLOYEE SIGNATURE:	DATE: