



January 2021
FLSA: EXEMPT

MAINTENANCE SUPERINTENDENT

DEFINITION

Under general direction, plans, organizes, directs and assists in a variety of facility, plant, and equipment maintenance activities for the District including mechanical, electrical, instrumentation, grounds, structures maintenance, repair, operation, construction and inspection tasks in connection with operating and maintaining facilities and properties associated with the District's wastewater treatment plant and collection system; and performs related work as required.

This is an "at will" management position.

SUPERVISION RECEIVED AND EXERCISED

Receives administrative direction from the General Manager. Exercises direct supervision over maintenance mechanics, safety, and operations staff. Works in close relationship with Plant Engineer, Operations Superintendent, and Collections Superintendent.

CLASS CHARACTERISTICS

Positions assigned to this class are characterized by responsibility for strategic and general planning and prioritization of maintenance, repair and rehabilitation activities at District facilities. Successful performance requires the ability to effectively plan, sequence, direct, and coordinate multiple short to long-range maintenance, repair, and rehabilitation projects. Responsibilities include coordinating the activities of the division with those of other divisions and managing and accomplishing the complex and varied functions of the divisions. The incumbent is accountable for accomplishing planning and operational goals and for furthering District goals and objectives within general policy guidelines.

EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative only)

Management reserves the rights to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.

- Initiates, plans, directs and oversees the sequence of operations for large and complex repair, maintenance and construction work at treatment plant, pump stations, storm drainage stations, and other associated water systems, chemical handling systems and oxygen injection systems.
- Coordinates staffing with operational and mechanical activities, directs the coordination of assigned work with appropriate personnel, reviews, preliminary design and specification and in association with appropriate staff, makes recommendations involving modifications to facilities.

EXAMPLES OF ESSENTIAL FUNCTIONS (continued)

- Inspect project work site prior to job start-up to identify terrain features, required access to materials, and special equipment needed and any potential operational difficulties that may be encountered.
- Implements and assists in planning preventive and predictive maintenance programs for supporting continuous operations of plant equipment and processes and for other facilities. Recommends, develops, implements improvements in plant and facility maintenance procedures and work processes to increase effectiveness of maintenance programs.
- Interprets mechanical, electrical or instrumentation drawings, diagrams and specifications to subordinates; inspects work in progress; ensures that work complies with appropriate repair methods and techniques; adjusts existing allocation of staff, materials, and budgetary resources within division to meet maintenance service agreements and plant operational requirements.
- Provide recommendations to engineering on proposed facility design specifications; proactively coordinates with other departments and supervisors regarding current and proposed capital programs and their impact on quality and level of maintenance support, negotiates and implements internal and external service agreements.
- Directs, coordinates and reviews the work plan for assigned plant facility services and activities; assigns work activities and projects, monitors workflow; reviews and evaluates work products, methods and procedures; and meets with staff to identify and resolve problems.
- Establishes policies and procedures for operation and maintenance of complex treatment equipment, chemical handling systems and oxygen injection.
- Oversees the preparation of requisitions and purchase orders for materials and equipment needed to perform construction or maintenance projects.
- Designs and implements training of crews in plant maintenance, construction, repair and safety principles to meet and comply with national, federal, state and local regulations.
- Perform a wide variety of precise and complex repair, maintenance, and installation work on a variety of wastewater facilities to include large and small industrial pumps, shafts and bearings, hydraulic controls and regulators of various types, valves, and allied piping systems, chemical feed and processing equipment, belt, chain and screw conveyors, sluice gates, compressors, scrapers, and plumbing, heating, and ventilating and air conditioning equipment.
- Schedules and directs computer-based maintenance programs. Directs, coordinates, and reviews the work plan for administrative staff assigned to manage computerized maintenance management software.
- Formulates, initiates, and directs the operational parameters for facilities and equipment under manager's jurisdiction, including storm periods or emergencies.
- Compiles data and maintains a project tracking system on construction and maintenance work progress using daily reports, scheduling status, materials ordered, and manpower and time estimates.
- Assists in preparation of requests for proposals (RFP) for design and/or construction services; assists in the preparation of RFP evaluation criteria, the selection of a preferred firm, and contract preparation.
- Approves time sheets, equipment, labor changes and assigns priority of work orders for plant maintenance personnel.
- Participates in the development and implementation of goals, objectives, policies, and priorities.

- Selects, trains, motivates, and evaluates personnel performance; implements discipline and termination procedures, when required.
- Prepares and presents staff reports and other correspondence as appropriate and necessary.
- Establish safety and regulatory goals consistent with overall District standards; manage District Safety/Regulatory Compliance position to meet District goals. Designs and administers safety programs.
- Performs other duties as assigned.

QUALIFICATIONS

Knowledge of:

- Thorough knowledge of the standard methods and practices used in managing preventive and predictive maintenance programs for mechanical and electrical equipment, facilities, and structures common to a wastewater utility plant; safety regulations and practices pertaining to the work of the assigned section.
- Working knowledge of standard specifications, methods, materials, and equipment used in construction.
- Working knowledge of the materials, tools, equipment, industry standards, and local and national codes associated with repair, maintenance, and rehabilitation work for one or more of the following: electrical, instrumentation and process controls, mechanical, structural, or pipeline installation and repair.
- Skill in reading and interpreting mechanical, structural, electrical, or pipeline drawings, plans and specifications. Skill in performing shop mathematics, estimating labor, equipment and materials.
- Ability to plan, assign, coordinate, direct, and review the work of others; train and evaluate others on proper work methods and on safety regulations and precautions; plan and direct a preventive maintenance program; recommend and implement improved maintenance procedures and work processes; inspect and evaluate work sites for quality of work performed.
- The methods, materials, equipment and chemicals used in the maintenance, repair and construction of various types of mechanical, hydraulic, pneumatic, chemical, and electrical/instrumentation components in water quality treatment plants, complex pumping stations, potable water facilities, and chemical handling.
- Safety principles and state-OSHA NFPA (National Fire Protection Association) 70E and federal, state and local safety order requirements involved in all aspects of plant maintenance work, equipment usage, and confined space work performed.
- General knowledge of construction practices applied to the installation of utilities for commercial projects.
- Building inspection methods and procedures; building construction materials, methods, and principles used in the design construction and maintenance of public buildings, mechanical plumbing and electrical systems used in commercial buildings.
- Knowledge of Uniform Building Code, Uniform Fire Code, National Electrical Code, Uniform mechanical Code, Uniform Plumbing Code, and other related standards
- Leadership supervisory principles and practices that include training, planning, budgeting and scheduling effective use of personnel, equipment and materials.

- Computer systems relevant to wastewater quality treatment facilities, including SCADA operating systems.
- Pertinent federal, state, and local laws, codes and regulations.
- Permit and regulatory requirements for the operation of a wastewater quality facility (desired).
- Principles of budget preparations and control.

Skill to:

- Establish and maintain effective working relationships with those contacted in the course of work, including a variety of government officials and the general public.
- Direct operations of all mechanical, hydraulic, pneumatic, and electrical and instrumentation equipment used in treatment plant operations.
- Communicate clearly and concisely, both orally and in writing in the English language.

Ability to:

- Ability to perform a variety of mechanical maintenance and repair work to shop, plant and field equipment; keep records and make reports; train and direct the work of sub-journey employees; make estimates of labor and materials.
- Keep neat, accurate, complete, and concise records and reports; prepare contracts, board reports and correspondence.
- Read and interpret mechanical and pipeline drawings, construction plans, specifications, and work orders, making accurate mathematical calculations relating to construction and survey.
- Draw valid conclusions and make appropriate recommendations based on work site inspections, review of work order files and project documents.
- Plan, assign, monitor, and direct the work of others; make verbal and written reports and keep accurate records; exercise resourcefulness in the field and work without immediate supervision.
- Use a personal computer to enter and retrieve data, prepare reports, and maintain a construction project scheduling system.
- Communicate effectively with other District personnel, members of the general public, developers, and other agencies orally and in writing.
- Coordinate and complete several assignments concurrently.
- Work independently and establish and maintain effective working relationships.
- Supervise/direct/coordinate the work of staff.
- Hire, supervise, train, and evaluate staff.
- Interpret and explain applicable policies and procedures.
- Prepare clear and concise reports.
- Plan and oversee complex jobs, including the utilization of personnel, materials, and equipment.
- Interpret and explain blueprints, specifications, and maps.
- Prepare and communicate budget information.
- Maintain facility to meet permit and regulatory requirements.

EDUCATION AND EXPERIENCE:

Any combination of training and experience which would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

Equivalent to the completion of High School Diploma or General Equivalency Diploma.

Five years of experience planning, assigning, and directing the repair of equipment and facilities common to (or similar to) a wastewater utility in one or more of the following trades: mechanical, electrical, instrumentation and process control, structural maintenance and repair.

Five years of experience at the project manager level in a water or wastewater utility with responsibility for one or more of the following: construction, asset management, operational analysis.

Required Qualifications:

- Possession of a Class C driver's license required by the State of California, Department of Motor Vehicles, to perform the duties of the position. Continued maintenance of said driver's license in compliance with established District vehicle operation standards, and the ability to be insured for the operation of a vehicle/District vehicle in accordance with the terms and conditions of the District's insurance program are conditions of continuing employment. The California Sanitation Risk Management Authority (CSRMA) driving standards.
- 40-hour HAZWOPER certificate within one (1) year of employment.
- Possession of, or ability to obtain within 18 months of date of hire, a California Water Environment Association (CWEA), Mechanical Technologist Grade IV or CWEA Electrical/Instrumentation Technologist Grade IV certificate.

Desired Qualifications:

Desired Qualifications:

- Possession of a Grade III Wastewater Treatment Plant Operator certificate issued by the State of California

Additional Requirements:

Ability to be on standby for after hour emergency call outs and acknowledge the notification within 15 minutes when on standby duty. If an emergency requires the employee to return to work, they must do so within 1 hour of responding to the notification.

Employee must pass a respiratory fit test within 2 months of employment and adhere to District respiratory policy which specifies facial hair restrictions.

All Carmel Area Wastewater District employees are, by State and Federal law, **Disaster Service Workers**. The roles and responsibilities for Disaster Service Workers are authorized by the California Emergency Services Act and are defined in the California Labor Code. In the event of a declaration of emergency, any employee of the District may be assigned to perform activities which promote the protection of public health and safety or the preservation of lives and property.

Such assignments may require service at locations, times, and under conditions that are significantly different than the normal work assignments and may continue into the recovery phase of the emergency.

If a "Local Emergency" is declared during the employee's shift, employees will be expected to remain at work to respond to the emergency needs of the community. If a "Local Emergency" is declared outside of the employee's shift, employees must make every effort to contact their direct supervisor or department head to obtain reporting instructions as Disaster Service Workers.

PHYSICAL DEMANDS

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:

Standing:

- Average Frequency: 4 to 8 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Short (Less than 1 hour)
- Surfaces: Office – carpet, tile; field/plant – concrete, asphalt, dirt, gravel, mud, metal grating, grass, sloped and uneven terrain
- Description: Performs while supervising and guiding journey level technicians, and related positions in installation, maintenance, and repair activities, overseeing the most complex and difficult maintenance and repair work and performing such work from time to time if needed including using tools, communicating with coworkers and contractors during informal meetings, during field inspections and performing other described job duties.

Walking:

- Average Frequency: 4 to 8 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Long (2 to 8 hours)
- Surfaces: Office – carpet, tile; field/plant – concrete, asphalt, dirt, gravel, mud, metal grating, grass, sloped and uneven terrain
- Description: Performs while supervising and guiding journey level technicians, and related positions during installation and maintenance tasks, overseeing the most complex and difficult maintenance and repair activities and performing such work as needed, transporting tools, parts and equipment as needed, to and from offices, and performing other described job duties.

Sitting:

- Average Frequency: 4 to 8 times per day
- Average Duration: Long (2 to 8 hours)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Long (2 to 8 hours)

- Surfaces: Cushioned vehicle seat, office chair
- Description: Performing various desk station activities including using a computer, reading and writing, driving a vehicle, during meetings and trainings, and performing other described job duties.

Kneeling/Crouching/Squatting:

- Average Frequency: 1 to 3 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Short (Less than 1 hour)
- Surfaces: Office – carpet, tile; field/plant – concrete, asphalt, dirt, gravel, mud, metal grating, sloped and uneven terrain
- Description: Performs during inspections and performing the most complex and difficult repair work in conjunction with using tools, retrieving, or positioning items on and off lower shelves, ground level, or lower areas, inspecting and accessing equipment, and performing other described job duties.

Crawling:

- Average Frequency: 1 to 3 times per year
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: 4 to 8 times per year
- Maximum Duration: Short (Less than 1 hour)
- Surfaces: Office – carpet, tile; field/plant – concrete, asphalt, dirt, gravel, mud, metal grating, sloped and uneven terrain
- Description: Performs while working underneath building structures, accessing, and inspecting equipment, and performing other described job duties.

Laying on Back/Stomach:

- Average Frequency: 1 to 3 times per year
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: 4 to 8 times per year
- Maximum Duration: Short (Less than 1 hour)
- Surfaces: Office – carpet, tile; field/plant – concrete, asphalt, dirt, gravel, mud, metal grating, sloped and uneven terrain
- Description: Performs while accessing and inspecting equipment.

Climbing/Balancing:

- Average Frequency: 1 to 3 times per month
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: 4 to 8 times per month
- Maximum Duration: Medium (1 to 2 hours)
- Surfaces: Ladder or stair steps, vehicle floorboards

- Description: Performs while ascending or descending extension ladders up to 40 feet, stepladders 10 to 12 feet, stair steps at plant sites, accessing vehicle cab 1 to 3 steps.

Reaching:

Above Shoulder Level:

- Average Frequency: 4 to 8 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Medium (1 to 2 hours)
- Description: Performs during inspections, possibly while performing the most complex and difficult maintenance and repair work and retrieving or positioning items on and off upper shelves. Unilateral or bilateral upper extremities from less than full-to-full extensions at each occurrence. A variable to reaching above shoulder level includes employee's height.

Between Waist and Shoulder Level:

- Average Frequency: Greater than 9 times per day
- Average Duration: Medium (1 to 2 hours)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Medium (1 to 2 hours)
- Description: Performs while utilizing a computer keyboard and input device to enter or retrieve data, which includes reaching within the primary reach zone, operating standard office equipment including a copy or fax machine, handling office supplies, driving a vehicle in conjunction with maneuvering a steering wheel, using tools during maintenance and repair activities as needed and performing other described job duties. Unilateral or bilateral upper extremities from less than full-to-full extensions at each occurrence.

Below Waist Level:

- Average Frequency: 4 to 8 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Medium (1 to 2 hours)
- Description: Performs during inspections and performing the most complex and difficult repair work in conjunction with using tools, retrieving or positioning items on and off lower shelves, ground level, or lower areas, inspecting and accessing equipment, and performing other described job duties. Unilateral or bilateral upper extremities from less than full-to-full extensions on each occurrence.

Pushing/Pulling:

- Average Frequency: 1 to 3 times per week
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 per day
- Maximum Duration: Medium (1 to 2 hours)

- Description: Performing the most complex and difficult maintenance and repair activities including securing conduit, utilizing manual pipe benders, installing and securing wiring, utilizing a metal hook to remove or replace manhole lids, using a variety of basic or power tools including drills, grinders, rotary hammers, wrenches, valve keys, etc. and performing other described job duties. Unilateral or bilateral arm use.

Twisting/Rotating:

Waist:

- Average Frequency: 4 to 8 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Medium (1 to 2 hours)
- Description: Performs while accessing and inspecting equipment and performing other described job duties.

Neck:

- Average Frequency: Greater than 9 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Short (Less than 1 hour)
- Description: During normal body mechanics, performs while supervising and guiding employees including overseeing the most complex and difficult tasks and performs such work as needed, driving and performing other described job duties.

Wrists:

- Average Frequency: Greater than 9 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Short (Less than 1 hour)
- Description: Performs while performing the most complex and difficult maintenance and repair work in conjunction with using a variety of basic or power tools including screwdrivers, wire strippers, pliers, and other related tools and performing other described job duties. Unilateral or bilateral hand use.

Bending:

Waist:

- Average Frequency: 1 to 3 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Short (Less than 1 hour)
- Description: Performing inspections, performing the most complex and difficult maintenance and repair work, possibly while using tools and performing other described job duties.

Head/Neck:

- Average Frequency: Greater than 9 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Short (Less than 1 hour)
- Description: Performs while supervising and guiding journey level technicians, and related positions in installation, maintenance, and repair activities, overseeing the most complex and difficult maintenance and repair work and performing such work from time to time if needed including using tools, performs while reading and writing, inspecting and accessing equipment, using basic or power tools, and performing other described job duties.

Wrists:

- Average Frequency: Greater than 9 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Short (Less than 1 hour)
- Description: Performs during normal body mechanics, handling office supplies, paperwork, driving in conjunction with maneuvering a steering wheel, performing the most complex and difficult maintenance and repair work and possibly while using tools and performing other described job duties. Unilateral or bilateral hand use.

Lifting/Carrying:

0 to 10 lbs.:

- Objects: Smaller power tools (drills, grinders, air tools, grease gun, skill saw, etc.); hand tools (wrenches, screwdrivers, pliers, hammers, ratchets, strippers/cutters, etc.); small tool bag, socket set, fasteners; couplings, short sections of metal/pipe or wood; miscellaneous parts, wiring, levels, tape measures, small fire extinguisher, electrical cords, diagnostic equipment, aerosol cans, rollers, brushes, one-gallon containers, two safety cones, step-stool/ladder, broom, squeegee/mop, shovel, binders, manuals, writing utensils, telephone handset, chair
- Average Frequency: Ongoing - tasks performed throughout shift
- Average Duration: Seconds to less than 15 minutes at a time
- Maximum Frequency: Ongoing - tasks performed throughout shift
- Maximum Duration: Seconds to less than 15 minutes at a time
- Height: Ground to shoulder or above
- Distance: Average - less than 100 feet including ascending/descending stairs
- Distance: Maximum - 1,000 feet
- Description: Using hand or power tools as needed, performs a variety of lifts and carries to complete the following: carpentry, electrical, plumbing, painting, landscaping, cleaning, assembling/disassembling, diagnosing, repairing, bolting, screwing, cleaning, sweeping, stocking, storing, office duties, paperwork/manuals, writing.

11 to 25 lbs.:

- Objects: Larger hand tools (large sledgehammer, large wrenches), medium power tools (pneumatic nail gun, reciprocating saws, hammer-drill, core drill), medium tool bag, bucket of tools, 3-gallon containers, up to five safety cones, medium fire extinguisher, 6' ladder, pneumatic pipe plug, shovel with dirt, picking/digging tools, sections of metal/pipe or wood, boxes of tools/parts; valves, 100' of ¾" hose, 20' of 2" suction hose, 13-gallon trash can, partial box of paper/files
- Average Frequency: Routine- 1 per hour
- Average Duration: Seconds to less than 15 minutes at a time
- Maximum Frequency: 8 times per hour
- Maximum Duration: Seconds to less than 15 minutes at a time
- Distance: Less than 100 feet, including ascending/descending stairs
- Height: Ground to shoulder or above
- Description: Using hand or power tools as needed, performs a variety of moderate duty lifts/carries to complete the following: carpentry, electrical, plumbing, painting, landscaping, assembling/disassembling, diagnosing/repairing, bolting, screwing, cleaning, stocking, storing, valve removal/replacement, battery removal/replacement; small grate and lid removal/replacement; digging and filling. Retrieval, set-up, breakdown and replacement of equipment for projects.

26 to 50 lbs.:

- Objects: Large tool bag/kit, metal chain, small electric motors, 12' ladder, 20' extension ladder, jack hammer, concrete and metal debris, flanges, couplers, sections of metal/pipe or plastic/wood, smaller valves, small impellers, band saw, flange, pipe vice, oil bucket, blower, shaft, threader, traffic signage, wheelbarrow, 5-gallon container/bucket, empty pallet, case of paper or full box of files, 30-gallon garbage can, 50' of 1" hose, 10' of 6" suction hose, valve box lid, car battery
- Average Frequency: 4 times per day
- Average Duration: Seconds to less than 10 minutes at a time
- Maximum Frequency: 4 times per hour
- Maximum Duration: Up to 15 minutes at a time
- Distance: Less than 50 feet, including ascending/descending stairs
- Height: Ground to shoulder
- Description: Using hand or power tools as needed, performs a variety of medium duty lifts/carries to complete the following: carpentry, electrical, plumbing, painting, landscaping, assembling/disassembling, bolting, stocking, storing, valve removal/replacement, battery removal/replacement; grate and lid removal/replacement; digging and filling. Retrieval, set-up, breakdown and replacement of equipment for projects. Jackhammer use includes pushing, pulling, partial lifting, lifting, and guiding.

51 to 60 lbs.:

- Objects: 28' extension ladder, 10' step ladder, confined space winch, wheelbarrow, medium electric motor, medium VFD unit, steel flanges, steel elbows/necks/spools, couplers, longer sections of metal/pipe or wood, 100' of 1" hose, truck battery, 30' of 2" hose, 15' of 6" hose, 4' x 4' aluminum vault lid, sandbag, small steel stormwater grating
- Average Frequency: 4 times per month
- Average Duration: Seconds at a time

- Maximum Frequency: Four times per day
- Maximum Duration: Less than 1 minute at a time
- Height: Ground to waist
- Description: As needed for activities including repair and construction projects; retrieval, set-up, breakdown, and replacement of project equipment; confined space entry set-up/breakdown, accessing vaults, collections infrastructure repair, flood preparations.

61 to 120 lbs. (two-person lifts):

- Objects: 32' extension ladder, AA frame ladder, forklift propane cylinder [63 pounds shoulder height], 2' submersible pump, portable railing anchor plate, trash pumps, vault lid, electric motors, VFDs, confined space base tripod, bollards, jumping jack, steel manhole covers, steel piping, 15' or more of large suction hose, generator, 8" x 20' suction pipe, large steel stormwater grating, various steel valves, flanges, elbows up to 150 lbs.
- Average Frequency: As assigned - 1 to 4 times per month
- Average Duration: Seconds at a time
- Maximum Frequency: As assigned – 4 times per day
- Maximum Duration: Less than a minute
- Distance: Less than 25 feet
- Height: Ground to waist
- Description: As needed for non-routine projects and activities including repair, replacement or construction projects; confined space entry set-up/breakdown, accessing vaults, collections infrastructure repair. Lifting straps are to be used if safety will be increased.

120+ lbs. Not a job requirement, any lifts above this threshold will be accomplished via lifting equipment.

Dragging/Pulling:

76 to 100 lbs. (single-person pulls):

- Objects: Floor jack, manhole covers, 100' of charged 1" water line, charged suction lines, metal grating, aluminum pipe, heavy duty electrical wire, long sections of plastic or wood, collections equipment jetting lines, collections camera tether/cable
- Average Frequency: 4 times per month
- Average Duration: Seconds to less than 10 minutes at a time
- Maximum Frequency: 4 times per day
- Maximum Duration: 5 minutes
- Distance: Less than 5 feet to 100' feet for collections lines
- Height: Ground level or partial lift of one end from ground
- Description: A combination of pulling and/or partial lifting as needed to move heavy objects including using a floor jack, removing and replacing a manhole lid with a metal hook, dragging hose, dragging lengths of pipe, wood or metal, dragging metal grating. Lifting straps are to be used if safety will be increased.

Grasping:

Simple:

- Average Frequency: Ongoing - tasks performed throughout shift
- Average Duration: Seconds to less than 15 minutes at a time
- Maximum Frequency: Ongoing - tasks performed throughout shift
- Maximum Duration: Seconds to less than 15 minutes at a time
- Description: Performs while operating a variety of equipment (forklifts, truck, golf cart, tractor, backhoe, etc.); operating small power tools; using small hand tools; retrieving and relocating miscellaneous tools, parts; utilizing a telephone handset, handling paperwork; utilizing calking and grease guns; spraying aerosol cans; painting with rollers or brushes, mopping, sweeping, vacuuming, landscaping; scraping, utilizing a squeegee; any grasping necessary to complete required lifts/carries below 25 lbs. Unilateral and bilateral hand use.

Power:

- Average Frequency: Routine- 1 per hour
- Average Duration: Seconds to less than 15 minutes at a time
- Maximum Frequency: 8 times per hour
- Maximum Duration: Seconds to less than 15 minutes at a time
- Description: Performs while utilizing a shovel, digging bar or pick while digging; operating a jackhammer in conjunction with pushing, pulling, partial lifting and guiding; utilizing wrenches to remove or secure and torque bolts; using pry bars, wrenches, levers; tie down and securing equipment; utilizing wide variety of power tools grinders, electric chop saw, presses, drills, chainsaw, installing cabinetry including repairing walls. Any grasping necessary to complete required lifts/carries and pulls above 25 lbs. Unilateral and bilateral hand use.

Fine Manipulation:

- Average Frequency: 4 times per day
- Average Duration: Seconds to less than 5 minutes at a time
- Maximum Frequency: 2 to 3 hours
- Maximum Duration: Seconds to less than 10 minutes at a time
- Description: Performs while using of small hand tools (screwdrivers, small sockets, Allen wrenches, etc.), placing bolts, nuts, screws, nails, small parts; joining small components; using electrical testing equipment; making equipment adjustments, using machine-user interfaces, utilizing a writing utensil, using computer keyboards/tablets and mouse, touchpad or touch screens; using telephone. Unilateral or bilateral hand use.

Machine/Tools:

The machines and tools listed 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:

- Drills
- Pneumatic nail gun
- Pliers
- Tape measures
- Sockets
- Socket adapters
- Ratchets
- Wrenches
- Screwdrivers
- Reciprocating saws
- Hammers
- Diagnostic tools
- Allen wrenches
- Digging bar
- Pick
- Writing utensil
- Telephone handset
- Sledgehammer
- Grinders
- Air tools
- Grease gun
- Skill saw
- Levels
- Square
- Wire strippers
- Spray can
- Roto hammer
- Jackhammer
- Pipe wrenches
- Presses
- Chop saw
- Computer keyboard, mouse, monitor
- Band saw
- Cut off saw
- Forklift
- 28-ton truck
- Golf cart
- Tractor
- Backhoe
- Aerial lift
- Dollies
- 4-wheeled cart
- Wrenches
- Motors
- Ladders
- Valves
- Generators
- Electric snakes
- Rollers
- Blowers
- Vacuum
- Broom
- Mop
- Squeegee
- Paint brushes

Weights and Measures:

The items listed here to be weighed or measured 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:

Items Weighed:

- 4" C-900 pipe fitting – 6 lbs.
- 6" C-900 pipe fitting – 12 lbs.
- Gas Can (2 gallon) – 13 lbs.
- Suction hose (2" x 20' Green PVC) – 16 lbs.
- 6" x 4" I-beam – 20 lbs.
- Flow thru plug 6-8" – 20 lbs.
- 8" C-900 – 23 lbs.
- Pneumatic plug 10-18" – 25 lbs.
- Pipe (4" x 20' SDR 35) – 27 lbs.
- 3/8" chain – 28 lbs.
- Valve box lid (B12) – 28 lbs.
- Shoring (2' x 24-36" cylinder) – 30 lbs.
- Discharge hose (2" x 50' blue PVC) – 30 lbs.
- Cut off saw (hot saw) – 32 lbs.
- Jack hammer (30 pound) – 33 lbs.
- Gas can (5 gallon) – 33 lbs.
- Firehose (2.5" x 50') – 34 lbs.
- Confined space blower – 35 lbs.
- Electric motor (1 HP) – 35 lbs.
- Ventilation Blower (12V) – 36 lbs.
- Confined space winch – 41 lbs.
- Storm drain inlet (2x2) – 42 lbs.
- 20' extension ladder – 42 lbs.
- Concrete/Asphalt debris – 50 lbs.
- 6' plug hand crank – 50 lbs.
- Standard wheelbarrow (full) – 50 lbs.
- Metering vault lid (open) – 52 lbs.
- 28' extension ladder – 57 lbs.
- Traffic valve box (G5) – 58 lbs.
- Sandbags – 60 lbs.
- Pipe (4"x6' mission clay) – 60 lbs.
- Perma-Patch sack (60 pound) – 60 lbs.
- Concrete sack (60 pound) – 60 lbs.
- 2" Submersible sump pump – 60 lbs.
- Pipe (6"x20' SDR 35 – 61 lbs.
- Bumper crane assembly – 62 lbs.
- Lumber boards (2"x12"x16') – 64 lbs.
- Jack Hammer (60 pound) – 65 lbs.
- 2x4 grate – 71 lbs.
- Jet hose (pulling) – 71 lbs.
- Bollards (remove and replace) – 72 lbs.
- 32' extension ladder – 72 lbs.
- 4" plug valve – 75 lbs.
- 24" Manhole lid (open/lift) – 75 lbs.
- Concrete Sack (90 pound) – 90 lbs.
- Plywood (4'x8'x 1 1/8") – 94 lbs.
- Confined space base (tripod) – 95 lbs.
- Valve box (B12) – 96 lbs.
- Jack hammer (90 pound) – 97 lbs.
- Move furniture – 100 lbs.
- 2" Trash Pump (187 GPM) – 104 lbs.
- Pipe (8"x20' SDR 35) – 110 lbs.
- 4" gate valve – 114 lbs.
- 6" gate valve – 194 lbs.
- Manhole lid (36" diameter) – 229 lbs.

PERSONAL PROTECTIVE EQUIPMENT

Depending on the hazard, the employee is required to wear head, hearing, eye, foot, face, respiratory, body harness, and/or hand protection.

ENVIRONMENTAL ELEMENTS

- Employee is frequently exposed to outside weather conditions.
- Employee is occasionally exposed to high, precarious places.
- Employee is exposed to confined spaces; fumes or airborne particles; toxic or caustic chemicals.
- Employee is exposed to unpleasant smells and odors.
- Employee is exposed to moderate cold, moderate heat.
- Employee is exposed to risk of electrical shock or mechanical hazards.
- Employees in this classification may perform duties that involve a potential risk of exposure to blood-borne pathogens.
- The noise level in the work environment is usually loud.
- Employee, as needed, works indoors, office setting, climate controlled.

NOTICE: The examples of functions, responsibilities, work environment, physical demands etc. listed in this Job Analysis are representative only, and not exhaustive of the tasks that an employee may be required to perform.