

JOB ANALYSIS - MAINTENANCE WORKER

JOB ANALYST: Nancy Kennedy, MS,CRC	DATE OF ON SITE ANALYSIS: December 4 & 29, 2014
PHONE #: (800) 477-0626 X 4435	DATE REVISED: N/A
CONDUCTED FOR: Chico Unified School District	INFO PROVIDED BY: Randy Salado, Director, M & O/Transportation; John Carver, M & O Supervisor- Maintenance

General Description:

Under the supervision of the Maintenance and Operations Supervisor, the Maintenance Worker performs a variety of semi-skilled work in the maintenance, construction, and repair of buildings and equipment. Duties are performed at any one of the Chico Unified School District sites, and includes interiors, exteriors, associated grounds, and equipment; and may involve technical and functional supervision of lower level staff.

Essential Job Functions:

1. Perform semiskilled work involving maintenance, repair or construction of facilities involving electrical, plumbing, carpentry, painting, glazing, locking, and heating, ventilation, air conditioning systems.
2. Inspect and verify working order or repair/maintenance requirements of District facilities and equipment.
3. Perform routine and non-routine maintenance and critical repairs based on expertise/designation, or as assigned. May specialize in an area of concentration, i.e., HVAC, electrical, plumbing, etc.
4. Perform routine maintenance and repairs on plumbing systems, clear drains and lines, rethread pipe and seal joints; remove and replace parts, as necessary.
5. Check electric circuits, and repair/replace fuses, circuit breakers, switches, outlets, ballasts, relays and fixtures, as necessary.
6. Repair, replace, patch, or construct, window, fences, walkways, paved or concrete areas; repair playground equipment, install poles or make repairs to field structures (stadium), other equipment.
7. Remove, replace, or repair/construct structure areas, such as walls, ceilings, floors and floor coverings, gutters, outdoor and indoor lighting, etc.; build forms for concrete work, prepare and paint surfaces.
8. Make general repairs or installation of facility equipment and furniture within scope of responsibility, such as installation of projection systems, playground equipment, etc.
9. Drive service vehicles to and from various locations within District and adjacent areas, or as required; transport equipment/tools, and specialty equipment in a safe manner; ensure vehicle/equipment properly fueled and notify Vehicle Maintenance Shop of needs for maintenance or repairs in a timely manner. This includes trucks, boom trucks, trailers, tractors, and lift equipment, etc.
10. Operate a variety of manual, power, and specialty equipment and tools safely and effectively, and accordance with intended purpose and Department policies and procedures, including communication devices.

11. Maintain shop area(s), and equipment, tools, and supplies in working condition and orderly manner; request replenishment of supplies, or outside (vendor) repairs, as necessary.
12. Move furniture and equipment between or within classrooms, buildings, and campus locations; assemble and deliver new or repairs furniture to designated area(s).
13. Utilize computer software programs to update status of work performed in a timely manner; send and receive email communications; create necessary or required documentation for maintenance records, materials used (SDS), as required by the District or regulating agency.
14. Receive and respond to work orders and prioritize work according to urgency and necessity; arrange for, or obtain necessary supplies, materials, equipment, tools, and transport to work/job site.
15. Prioritize and perform work within the guidelines or requirements of the District, utilizing proper techniques, methods, safety procedures, and equipment/supplies.
16. Perform special projects or other related job duties as necessary or assigned by the Maintenance and Operations Department to maintain the safe and usable function of the District's educational programs; including, but not limited to, custodial and grounds work, etc.

Required Knowledge, Skill and Ability:

Knowledge of: Proper methods, materials, tools, terminology, and equipment used in building maintenance trades; maintenance and repair methods of buildings, facilities, and equipment; operation and use of hand and power tools, and equipment; shop mathematics applicable to building trades; blueprints, schematics, site plans, or layout processes; electrical systems; principals of plumbing, and building construction; welding and brazing techniques; proper storage and handling of materials, supplies and equipment; District policies, procedures, and requirements for building, facilities and equipment maintenance, including safety procedures and safety requirements.

Skill/Ability to: Read and comprehend a variety of written, electronic and oral information or instructions; perform calculations related to work performed; read and understand drawings, blueprints, schematics, site plans, and or detailed or technical information and apply to job functions; follow a variety of procedures, methods, and practices with little oversight or supervision; prioritize and organize work and schedule to meet the needs of the District; concentrate and maintain focus to complete work accurately and within reasonable time frames; operate a vehicle, forklift, scissor-lift, and a wide variety of equipment, tools, and devices in an efficient, precise and safe manner and for designed purpose or use; transport equipment and materials from shop, vehicle or site utilizing safe practices; observe legal and defensive driving practices; work independently or as part of a team; adhere to and/or apply rules, regulations, policies and procedures; establish, maintain and foster positive and harmonious working relationships with those contacted in the course of work; communicate with Site/District staff and coworkers effectively and in a professional manner through in-person, telephonic, and electronic communications; work around children in a public school setting; possess and maintain a valid California Class A driver's license.

Physical Demands Used Within This Report (Per U.S. Department of Labor Definition): NOTE: *Times listed are illustrated to represent approximate time range in an 8 hour work day:

Rating	Rarely - < 1%	Infrequently 2-5%	Occasionally 6-33%	Frequently 34-66%	Constantly 67% +
	< 5 minutes	*5-30 minutes	*30 minutes to 2 ½ hours	*2 ½ hours to 5 ¼ hours	*5 ¼ hours or more
Sedentary			0 – 10 lbs.		
Light			11 – 20 lbs.	0 – 10 lbs.	
Medium			21 – 50 lbs.	11 – 25 lbs.	1 – 10 lbs.
Heavy			51 – 100 lbs.	26 – 50 lbs.	11 – 20 lbs.
Very Heavy			100 + lbs.	50 + lbs.	20 + lbs.

STANDING: *Remaining on one's feet in an upright position at a workstation without moving about.*

Occasionally to Frequently. Standing occurs to inspect equipment/facilities, and to perform various repairs requiring maintaining a stationary position for several minutes or longer without change of position, including standing on a ladder rung. Standing occurs to change filters, make minor electric repairs, paint, and access parts, and perform welding/brazing, and similar job functions. Standing occurs on all types of surfaces, including interior surfaces, exterior surfaces, open terrain or rough surfaces or areas, wet or muddy areas, slopes, ladders/lifts, roofs, etc.

WALKING: *Moving about on foot.*

Occasionally to Frequently. Walking occurs throughout the work day to access various areas within a shop or maintenance yard; to and from vehicle to work site; around or within school campuses or District facilities, or off-premise locations, as necessary. Walking spans vary from a few feet up to several hundred feet or several hundred yards, depending on locations. Walking occurs on roof surfaces; interiors of buildings, exterior surfaces, asphalt, gravel, cement; even, uneven, and rough terrain and surfaces; slopes; wet, slippery, or muddy surfaces.

SITTING: *Remaining in the normal seated position.*

Occasionally, with rare occurrence to Frequently. Sitting occurs to drive a service truck from location to location to access various sites within the District, or when operating service equipment (forklift, tractor, Bobcat, etc.), and when preparing documentation or using a computer terminal. Duration of driving varies from 10 to 30 minutes based on driving conditions, and occurs up to several times per day based on necessity. Duration of sitting to operate service equipment varies approximately 1 to 2 hours per day. Special non-routine projects will occur once or twice per year requiring operation of service equipment up to 6 hours in one day.

LIFTING: *Raising or lowering an object from one level to another (including upward pulling).*

	Never	Rarely	Infrequently	Occasional	Frequently	Constantly	Height
Under 10 lbs.					X		Floor to Overhead
10 – 20 lbs.					X		Floor to Overhead
21 – 35 lbs.				X			Floor to Shoulder
36 – 50 lbs.			X				Floor to Mid-torso

Typical or representative items lifted (not a comprehensive list):

- 0 – 10 lbs.: Miscellaneous hand tools and hand-held power tools (most under 8 lbs.)-Drill, Impact Wrench, Sander, Saw, etc. Various parts or materials, clip board/work order, telephone.
- 11 – 20 lbs.: Various materials and supplies, white boards, projector screen, tool box or bag, ladders (Type 1)
- 21 – 35 lbs.: Materials and supplies, cabinets, larger fiberglass A frame or extension ladder
- 36 – 50 lbs.: Materials, larger measured board), paint, etc.

Single items heavier than 50 lbs. are lifted with assistance from co-worker and are not required as a single-person lift. Heaviest identified items are a bag of cement or cold patch asphalt weighing 60 or 90 lbs., but other items may exist depending on needs of task.

CARRYING: *Transporting an object usually holding it in the hands, arms or shoulders.*

	Never	Rarely	Infrequently	Occasionally	Frequently	Constantly	Distance
Under 10 lbs.					X		Any distance walked
10 – 20 lbs.				X			Any distance walked
21 – 35 lbs.			X-----	-----X			Up to 100 feet
36 – 50 lbs.			X-----	-----X			Up to 100 feet
51 – 75 lbs.	X						
76 – 100 lbs.	X						

See Lifting Section for typical items carried.

PUSHING/PULLING: *To exert force on or against an object in order to move it away, OR To draw towards oneself, in a particular direction or into a particular position.*

0 - 20 lbs. - Occasionally to Frequently. Pushing or pulling to move and maneuver objects, equipment, parts, tools, etc. occurs routinely for short durations, including sliding equipment in/out of service vehicle, or supplies on shelves, or other locations. Pulling or pushing is required to operate controls on some equipment, and to open/close doors, hatches, drawers, etc. Force is applied with hands/arms unilaterally or bilaterally, and with upper torso as needed.

21- 50 lbs. - Rarely to Infrequently. Variable force is required as an initial or sustained push or pull using hands/arms, upper body, or full body (legs) to maneuver fully loaded hand truck such as to move a cabinet; or to push or pull to dislodge an obstacle or part, or to install equipment.

CLIMBING: *Ascending or descending ladders, stairs, scaffolding, ramps, poles and the like using hand and feet.*

Infrequently to Occasionally. Climbing a ladder occurs routinely to perform maintenance tasks requiring access to roofs, ceilings, and upper surfaces, and to climb steps or stairways within buildings or a stadium facility, slopes, ramps, and into/out of service truck or on/off a lift platform. Work tasks involve using the appropriate sized 18 foot extension or 6, 8, or 10 foot A-frame ladder to access upper levels, as well as a stationary vertical ladder to access some high ceiling or roof top levels. This will occur to change/repair light fixtures, access wall or ceiling mounted equipment, or to access roof tops for maintenance of HVAC systems. Climbing is generally for a short duration to access the height or level where work is to be performed, but may be repeated frequently to access parts, equipment, or supplies. Steps, stairs, ramps and ladders used are standard rise (step, ladder rung, or slope height).

BALANCING: *Maintaining body equilibrium to prevent falling when walking, standing, crouching or running on narrow, slippery or erratically moving surfaces.*

Infrequently to Occasionally. A good overall sense of balance is required to perform routine job duties. Maintaining equilibrium and steadiness is required when moving or maneuvering equipment, furniture, and/or heavy or large objects, and when working from a ladder or elevated platform or roof. Surfaces may be narrow, slippery, and in case of platform lifts moving when raising or descending.

STOOPING/BENDING: *Bending body downward and forward by bending spine at the waist, requiring full use of the lower extremities and back muscles.*



20 Degrees- Occasionally to Frequently. Forward bending or stooping occurs routinely to access supplies and equipment, and when performing routine maintenance tasks. Flexibility of the upper torso is also required when ascending or descending, and entering/exiting cabs of vehicle or equipment. Duration is generally brief, but may be sustained for several minutes, and repeated.



45 Degrees- Occasionally to Frequently. Forward bending occurs to access tools and equipment, and other items or work areas when performing maintenance tasks. Duration is usually as an up and down motion, however, may be sustained in situations where crouching/squatting, or kneeling is not expedient or viable.



90 Degrees- Rarely. Full forward bending occurs incidentally and at discretion to pick up a dropped item, or if expedient to access tools, or a work area (behind an obstacle).

TWISTING/TURNING: *Rotating the torso. This includes turning of upper and lower back, and hips.*

Up to Frequently, 0-45 degrees. A slight twist (0 - 20 to 30 degrees) will occur routinely when accessing various areas, tools/equipment, and etc. and fluid torso movement is required to perform quick actions. Twisting up to 45 degrees occurs as necessary to access areas from a stationary position, such as from a ladder, or when seated on equipment.

KNEELING: *Bending legs at knees to come to rest on knee or knees.*

Up to Occasionally. Kneeling on one or both knees occurs to perform work tasks on lower levels where a steady or prolonged position is required to complete work. This commonly occurs to repair electrical outlets or plumbing, or lower wall surfaces, or lower cabinets/shelves, etc.

CROUCHING/SQUATTING: *Bending body downward and forward by bending legs and spine.*

Crouching- Infrequently to Occasionally. Crouching occurs when lifting heavier or large objects to load or unload service truck or hand truck, etc.

Squatting- Rarely to Infrequently. Squatting usually occurs at discretion and in situations where inspecting or accessing a lower object or area is for a short duration. This includes inspecting plumbing or electrical to assess needed repair, or working condition.

CRAWLING: *Moving about on hands and knees or hands and feet.*

Rarely to Infrequently. Crawling is required to access confined areas, such as attics or interstitial spaces to access HVAC apparatus, change filters, etc. Crawling occurs to enter or exit such areas requiring moving distances up to approximately 30 feet. Multiple trips may be necessary to perform necessary repairs or maintenance, but is usually not required on a daily basis.

NECK POSITIONS:

Extension: 0 - 70 degrees: Occasionally to Frequently. Looking upward as a glance to inspect or view upper level areas and as a sustained neck extension is required. The nature of work performed requires fluid neck movement to full range. Sustained neck extension is required to repair ceilings, install or repair light fixtures, change light bulbs or tubes, repair clocks, paint upper surfaces, to routinely climb ladders, and similar job tasks.

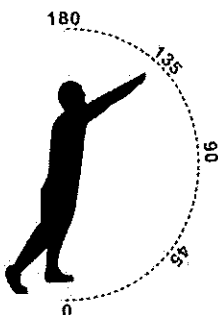
Flexion: 0 - 80 degrees: Occasionally to Frequently up to 70 degrees. Looking downward occurs to view immediate surroundings, perform routine work tasks, pick up and move items, etc. Neck flexion will occur as a quick glance as well as a sustained position to perform maintenance tasks.

Left/Right Lateral Rotation: 0 - 45+ degrees: Occasionally. Glancing left and right will occur when driving or operating vehicles and equipment. When backing up, looking over shoulder will be required. Generally, left or right rotation will occur as brief glances or sustained period less than 1 minute.

Left/Right Lateral Flexion: 0 – 45 degrees: Infrequently. Tilting the head left or right will occur when viewing from behind an obstacle (tall load on hand truck), or as necessary to perform a maintenance/repair task when a change of stance is not expedient or convenient to the situation.

REACHING: *Extended hand(s) and arm (s) in any direction.*

Forward: Forward reaching occurs routinely to access items and perform routine tasks. Full forward and partial forward reaching occurs bilaterally and unilaterally left or right to the frequencies indicated below:



135 to 180 Degrees - Infrequently

90 to 135 Degrees - Infrequently to Occasionally

45 to 90 Degrees - Frequently to Constantly

Below 45 Degrees - Infrequently

Abduction (Side reaching 0 - 180 Degrees): Rarely. Signaling to others when assisting others backing up or moving equipment through school yards is required. This may require abduction with either right or left arm.

Horizontal Abduction (0 -90 Degrees)/Horizontal Adduction (0 - 45 Degrees): Occasionally to Frequently.

Horizontal abduction or adduction will be necessary when transferring tools or materials in the course of performing a maintenance task, or to moving equipment/tools. Range varies significantly according to each situation, but in general full range is required to perform work safely.

HANDLING: *Seizing, holding, grasping, turning, or otherwise working with hand or hands. Fingers are involved only to the extent that they are an extension of the hand, such as to turn a switch.*

Frequently to Constantly. Holding, gripping, turning with one or both hands is required to use hand and power tools, remove and replace items in need of maintenance or repair, to drive or operate small and large equipment.

Maintenance work will involve lateral grasping, hook grasping, tip-pinching, spherical grasping, and power grasping with full fluidity of wrists. A three-point pinch is required to write and use some hand tools. Handling involves intermittent repetitive and short cycle actions.

FINGERING: *Picking, pinching, touching, feeling or otherwise working primarily with fingers rather than with the whole hand or arm as in handling, and key-stroking.*

Infrequently to Occasionally. Fine finger tasks involve separating (wrapping or wires, etc.), pinching (setting a screw or holding nail), using keys or fingers to twist or sort parts, and similar tasks. Maintenance work involves interchangeable handling to fingering actions throughout the course of the work day; and will include using touch pads or dials, switches, and other miscellaneous actions. Repetitive fingering is intermittent, usually for less than a minute.

TALKING: *Expressing or exchanging ideas by means of the spoken work.*

Speaking is required in order to effectively communicate with co-workers, supervisions, and school site personnel on a regular basis, and anyone with whom contact is made during the course of work. Speaking in a normal volume to be understood using communication devices is required, and also in situations where there is loud background noise from operating tools and equipment.

HEARING: *Perceiving the nature of sounds by ear.*

Normal, near normal, or corrected to-hearing is required to detect unusual sounds and noises from operating equipment, or malfunctioning equipment. This will include identifying hissing sounds, as well as normal speech communication in-person or over a communication device. The ability to identify and correctly and efficiently respond to alarms and warning signals is required.

SEEING:

Normal, near normal or corrected to-vision is required in order to effectively and accurately performs all job tasks. The ability for near acuity (< 20 inches), far acuity (> 20 feet), depth perception, field of vision, accommodation (adjusting focus), and color identification is required. Maintenance tasks involve using tools and parts in close proximity, driving and judging distances involving far acuity and field of vision, and depth perception for operating specialized equipment such as various lifts, ladders/steps, backhoe, etc. Accommodation is required when assisting others and operating heavy equipment, and color identification for identification of wiring, or color coded parts or mechanisms, etc.

ENVIRONMENTAL CONDITION - EXPOSURE TO: (Checked items apply)

- ☒ Weather - Approximately 50 % inside 50 % outside Varies considerably on seasonal basis, as well as with location of maintenance task.
- ☐ Extreme Cold - no non-weather related
- ☐ Extreme Heat - no non-weather related
- ☒ Wet and/or Humid - only when cleaning parts/equipment
- ☒ Noise intensity level - Varies low to loud with hearing protection required
- ☒ Vibration - operation of power tools, or vibration from operating heavy equipment on uneven terrain
- ☒ Atmospheric Conditions - all ambient conditions, dust, odors, etc.
- ☒ Electrical Shock - potential from malfunctioning equipment
- ☒ Work in High Exposed Places - performs work from ladders, scissor lift, on roof tops, etc.
- ☐ Radiation (i.e. X-ray)
- ☐ Explosives
- ☒ Toxic or Caustic Chemicals - potential leakage from solvents
- ☒ Proximity to Moving Mechanical Parts - close to mechanical lifts, drills, etc.
- ☒ Other Environmental Conditions - Air and blood borne pathogens, biological spills.

PSYCHOLOGICAL FACTORS:

1. **ABILITY TO COMPREHEND AND FOLLOW INSTRUCTIONS:** *The ability to maintain attention and concentration for necessary periods. The ability to understand written and oral instructions, and the ability to do work requiring set limits, tolerances, or standards.*

100% of job functions are dependent upon clear understanding of methods and procedures and the exact nature of the work assignment. Periods of concentration are required to complete tasks in a timely and accurate manner and to achieve proper set limits, tolerances and/or standards due to the purpose and function of the position.

2. **ABILITY TO PERFORM SIMPLE AND REPETITIVE TASKS:** *The ability to ask simple questions or request assistance; the ability to perform activities of a routine nature; and the ability to remember locations and work procedures. The ability to obtain information and answer questions regarding company procedures, or standards for immediate staff is required.*

Approximately 60% of maintenance tasks involve routine tasks that are performed over the course of the work day, or are repetitive in nature. Scheduled maintenance tasks may be repeated throughout work day, such as changing HVAC filters at one or more school sites, relocating furniture from one classroom to another, or painting. As tasks are performed at any one of the District's facilities, the location of these sites, where materials are stored, and who responsible parties are must be remembered, as well as the critical factor of remembering and applying routine work procedures. On occasion general information will be provided regarding procedures or policies to co-workers, and the asking of simple questions or requesting assistance.

3. **THE ABILITY TO MAINTAIN A WORK PACE APPROPRIATE TO A GIVEN WORKLOAD:** *The ability to perform activities within a schedule, maintain regular attendance and be punctual; and the ability to complete a normal workday and/or work week and perform a consistent pace.*

100% of job functions involve timeliness to complete tasks or the adherence to a designated schedule. Assignments are made based on priority to the District as they affect the general safety and upkeep of facilities and the effectiveness of educational programs. Maintaining regular attendance and punctuality is important to minimize the effect on other workers and the educational program. Work assignments may be based on a deadline for completion. Work tasks require mental and physical stamina to perform tasks at a regular and/or consistent pace to avoid potential hazards, unfinished or extra work.

4. **ABILITY TO PERFORM COMPLEX AND VARIED TASKS:** *The ability to synthesize, coordinate, and analyze data; and the ability to perform jobs requiring precise attainment of set limits, tolerances and standards.*

Approximately 40% of job tasks involve coordination of activities with other workers, and/or the ability to analyze or troubleshoot systems in the repair or maintenance of facility systems. Work may be assigned based on special skills or abilities of workers, but in any case special circumstances may arise requiring analysis or synthesis of a combination of factors, such as a malfunctioning control panel, electrical, or HVAC system.

5. **ABILITY TO RELATE TO OTHER PEOPLE BEYOND GIVING AND RECEIVING INSTRUCTIONS:** *The ability to get along with coworkers or peers; the ability to perform work activities requiring negotiation with, explaining, or persuading; and the ability to respond appropriately to evaluation or criticism.*

85-90% of job functions involve the ability to get along with coworkers and others encountered in the course of work. Work is performed in or around public school campuses or district offices where a variety of persons will be encountered on a regular basis. Work performed often interrupts normal access to facilities/campus areas, or may affect the well being of users as in the case of heating or air conditioning systems. Workers must possess the ability to establish, foster and maintain effective working relationships by understanding and responding appropriately to others.

6. **ABILITY TO INFLUENCE PEOPLE:** *The ability to convince or direct other; the ability to understand the meaning of words and to use them appropriately and effectively; and the ability to interact appropriately with people.*

10 to 15%, or less of job functions involve directing, or influencing others. In all cases, where interaction with others is required or necessary proper language and word usage is important, especially when dealing with children, or where children are present.

7. **ABILITY TO MAKE GENERALIZATIONS, EVALUATIONS, OR DECISIONS WITHOUT IMMEDIATE SUPERVISION:** *The ability to recognize potential hazards and follow appropriate precautions; the ability to understand and remember detailed instructions; the ability to make independent decisions or judgments based on appropriate information; and the ability to set realistic goals or make plans independent of others.*

100% of job functions involve the ability to recognize potential hazards and follow appropriate precautions, remember detailed instructions, and to use good judgment based on available and appropriate information. Work is performed without the presence of an immediate supervisor at various locations. When using equipment, working from heights and performing work on various facility systems, the ability to make independent decisions is important. This includes the ability to know when the task or situation requires more significant work and a referral to a supervisor for direction. Job functions performed involve moving and using tools and equipment, working from heights, accessing areas where known or potential hazards exist.

8. **ABILITY TO ACCEPT AND CARRY OUT RESPONSIBILITY FOR DIRECTION, CONTROL, AND PLANNING:** *The ability to set realistic goals or make plans independently of others; the ability to negotiate with, instruct or supervise people; and the ability to respond appropriately to changes in the work conditions.*

Job functions do not require the ability to plan for or assume the responsibility for the work of others. Maintenance workers may be required to assist in the training of general procedures or methods to newer employees. However, it is required 100% of the time that the worker respond appropriately to changes in work conditions. This includes changes to a regular daily schedule due to a higher priority, re-routing or re-organizing tasks in order to fill in at another work assignment, etc. Based on the needs of the Maintenance and Operations Department, a worker may be required to assist with custodial or grounds-keeping, or another job function.