

MANHATTAN BEACH UNIFIED SCHOOL DISTRICT

BUILDING TRADES TECHNICIAN

Plumber

Electrician

Heating/Ventilating/Air Conditioning

DEFINITION - Under general supervision, to perform skilled work in one or more of the technical building and equipment trades classes listed above; to perform skilled, semi-skilled, and unskilled work in other building trades, as assigned; and to perform related work as required.

CLASS CHARACTERISTICS - Positions assigned to these classes spend the majority of their working time performing journey-level work in one or more of the technical building trades listed above. Positions are assigned to perform duties independently or as a team member in other trades in these classes in the Building Trades Specialist classes and in the Building Maintenance Worker class, as the need arises. Incumbents at this level have a significant role in planning work, estimating labor and materials requirements, and in identifying material sources and costs. Positions at this level perform work which has considerable variation and which requires the application of judgement in the selection of appropriate work methods, material, procedures, and safety precautions. Incumbents receive general instructions when tasks are assigned and are expected to inspect the work site and complete the project in a safe workmanlike manner, which complies with district and regulatory standards unless significant unanticipated problems are encountered. Incumbents are expected to refer to their supervisor matters, which would create an unsafe environment for students, staff, and themselves and/or would be perceived as deviation from policy and procedure. Incumbents designated as a project team leader are assigned to assign, check, guide, and correct work, and train team members.

EXAMPLE OF DUTIES* - The tasks listed in this section are representative of duties assigned to positions in this class. This list is not intended to be an exhaustive list of all of the tasks assigned to positions in the class, and it is not expected that all of the tasks listed are necessarily assigned to all positions in the class.

All Positions:

- Examine work orders to assess priority, estimate materials, tools, and amount of time; enter information to complete work orders. E
- Confer with supervisor on scheduling and technical problems of jobs and obtain approval to purchase tools, materials, and parts. E
- Confer with school site personnel to schedule work projects and report to work location. E
- Use tools of the trade with skill, observing safety precautions; operate testing and measuring instruments. E
- Select tools, materials, and equipment needed to complete assigned projects and work orders. E
- Research operating and technical manuals, follow drawings, and locate parts and tools in catalogs. E
- Load and unload tools and materials and transport to and from job sites. E
- Communicate with school personnel in person and by telephone to resolve and troubleshoot routine operational problems. E
- Contact vendors by telephone and in person to order and pick up parts and materials. E
- Brainstorm with departmental staff, users and vendors to obtain information and problem solve.

- Maintain tools and equipment in secure and working condition. E
- Recommend and plan and design new construction and system replacement projects.
- Perform semi-skilled and unskilled duties as a team member or independently in other trades and general maintenance areas, as the need arises. E
- Schedule and perform preventive maintenance.
- Perform daily preventive and safety inspection and operate district vehicle to and from school sites and vendor locations obeying traffic laws and observing defensive driving practices; wash and fuel vehicles. E
- Use rope, chain, hoists, dollies, and prime movers to handle equipment, tools, and materials.
- Wear identification, safety, and protective clothing and equipment. E
- Perform related duties as assigned. E

Plumber:

- Perform skilled work in the repair, alteration, construction, installation, and maintenance of plumbing systems and equipment. E
- Inspect, repair, test, service, troubleshoot, diagnose, and repair problems such as no water pressure, no hot water, toilets and urinals not flushing, water cannot be shut off, water will not circulate, sinks and toilets flooded, no steam, boiler problems, and other kinds of plumbing problems. E
- Operate power tools, pipe threading machine, large and small sewer gear, saws, drills, motors, OHM meter, jackhammer and electric equipment. E
- Dig hole manually to reach broken gas line, water line, and sewer line. E
- Test, repair, and replace back flow devices. E

Electrician:

- Perform skilled work in the repair, alternation, construction, installation, and maintenance of electrical systems and equipment. E
- Test, troubleshoot, and repair office machines and appliances; inspect new equipment for conformance with standards and operation; instruct staff in operation of equipment. E
- Inspect, repair, test, service, and maintain electrical systems including conduit and duct systems, light and power circuits, motors, appliances, generators, control equipment, switches, switchboards, fans, bell and buzzer systems, clocks, fire alarm and security systems. E
- Install interior and exterior wiring; assemble and install lighting systems. E

Heating/Venting/Air Conditioning:

- Troubleshoot, diagnose, repair and/or install air conditioning, ventilating and heating systems, thermostats, refrigerators, freezers, fan motors, relays, safety controls, compressors, freon leaks, heating equipment, check burners, gas valves, boiler water pressure, and pumps. E

* **Tasks statements coded with the letter “E” are essential elements of positions in this class pursuant to the Americans with Disabilities Act, 1990.**

LICENSE REQUIRED - Possession of a valid and appropriate California Driver's License is required as a condition of continued employment.

QUALIFICATIONS

<p>Knowledge of:</p> <ul style="list-style-type: none">• English usage;• Proper methods, terminology, materials, tools and equipment used in the designated trade(s);• Shop math applicable to the trade(s);• Appropriate safety precautions and procedures;• Applicable codes and regulations;• Routine record keeping methods	<p>Ability to:</p> <ul style="list-style-type: none">• Perform journey-level work in the designated trade(s);• Use with skill and precision the tools, equipment and materials of the designated trade(s);• Perform accurate measurements and shop mathematics;• Maintain accurate records;• Maintain tools and equipment used and assigned in clean working order, provide proper security in accordance with established departmental guidelines;• Plan and layout assigned work;• Read and work from technical manuals, shop drawings, blueprints, specification and catalogs;• Communicate effectively orally and in writing;• Operate a vehicle observing legal and defensive driving practices;• Understand and carry out oral and written instructions;• Establish and maintain effective relationships with those contacted in the course of work.
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TRAINING AND EXPERIENCE

Any combination of training, education and experience which demonstrates possession of the knowledges and abilities stated above, and the ability to perform the duties of the position. A typical qualifying entrance background is journey-level experience performing work in the designated trade(s) area; and completion of training and/or course work in theory and practice of the trade(s); or two years of experience as a Building Maintenance Worker in MBUSD wherein the applicant has learned and performed skilled level work in the designated trade and demonstrated possession of the required knowledges and abilities listed above.

PHYSICAL ABILITIES AND WORKING CONDITIONS OF CONTINUED EMPLOYMENT

The Physical Abilities and Other Conditions of Continued Employment and the Associated Tasks listed in this section are representative of, but are not intended to provide an exhaustive list of Physical Abilities and Other Conditions of Continued Employment and Associated Tasks which may be required of positions in this class. Manhattan Beach Unified School District encourages persons with disabilities who are interested in employment in this class and need reasonable accommodation of those disabilities to contact the Personnel Department for further information.

PHYSICAL DEMANDS	ASSOCIATED TASKS
<p>Vision: (which may be corrected)</p> <p>Read small print</p> <p>See small objects at a distance of 3 feet (Electrician and HVSC)</p> <p>Distinguish shades of color (Electrician and HVAC)</p> <p>Use peripheral vision</p>	<p>To perform tasks such as to:</p> <p>Read and research manuals and catalogs for maintenance and repairs</p> <p>Troubleshoot safety controls and relays</p> <p>Distinguish between color coded wires</p> <p>Operate district vehicle in keeping with defensive driving practices</p>
<p>Hearing: (which may be corrected)</p> <p>Hear sounds which warn of potential danger</p> <p>Analyze sounds of equipment operation</p> <p>Have tolerance to be expose to noisy conditions</p>	<p>To perform tasks such as to:</p> <p>Use and maintain power equipment and identify malfunctions</p> <p>Determine operating efficiency and need of repair</p> <p>Perform duties in equipment rooms; operate saws and drills for extended periods</p>
<p>Speech:</p> <p>Speak with a level of proficiency and volume to be understood in face-to-face public contact</p>	<p>To perform tasks such as to:</p> <p>Coordinate activities, maintain safety, confer with site staff, and contact vendors</p>
<p>Upper Body Mobility:</p> <p>Use hands and fingers to feel, grasp, and manipulate small objects, manipulate fingers, twist and bend hands at wrist and elbow</p> <p>Extend arms to reach outward and upward, use hands and arms to lift objects</p> <p>Turn, raise, and lower head, twist and bend at torso</p>	<p>To perform tasks such as to:</p> <p>Install, repair, operate, and maintain equipment and manipulate necessary tools and hoists</p> <p>Load and unload, and transport necessary tools and materials</p> <p>View machinery, equipment and fixtures from different angles, and work in small spaces</p>
<p>Lower Body Mobility:</p> <p>Walk on uneven terrain, walk on even surfaces</p> <p>Climb stairs/ladders</p> <p>Bend at waist</p> <p>Crawl</p>	<p>To perform tasks such as to:</p> <p>Transport equipment, material and tools to and from vehicle</p> <p>Troubleshoot electrical, security, plumbing, heating, and air conditioning systems on rooftops and above arm's reach</p> <p>Lift and transport tools and materials</p> <p>Crawl in attic space and around equipment</p>

<p>Lower Body Mobility: (cont.) Stoop</p> <p>Stand for prolonged periods of up to one hour</p> <p>Sit for periods of 15 minutes or longer</p> <p>Step over objects</p>	<p>To perform tasks such as to: Transport and lift equipment; service appliances</p> <p>Make heating and cooling repairs; dig ditches and trenches</p> <p>Travel to work sites; make repairs at or near floor area</p> <p>Make equipment accessible</p>
<p>Strength:</p> <p>To lift, push, pull, and/or carry objects which weigh as much as 80 pounds on a frequent basis</p>	<p>To perform tasks such as to:</p> <p>Move and replace compressors, motors, and fans, move and replace fixtures, lift and carry AV equipment, lift and carry materials</p>
<p>Stamina:</p> <p>Run quickly for brief spurts</p> <p>Climb flights of stairs</p>	<p>To perform tasks such as to:</p> <p>Shut off equipment in an emergency</p> <p>Reach work site, tools, and material locations; make numerous trips from roof to ground levels</p>
<p>Smell:</p> <p>Distinguish strong odors which may warn of equipment malfunction or danger</p>	<p>To perform tasks such as to:</p> <p>Check for freon and gas leaks</p>
<p>Environmental Requirements:</p> <p>Frequent extreme changes in temperature/temperature extremes (HVAC)</p> <p>Exposure to sun, rain, and wind without effective protection</p> <p>Exposure to harsh chemical/toxic conditions</p> <p>Work performed at considerable heights above the ground</p> <p>Work performed in confined spaces</p> <p>Work around dirt/dust</p> <p>Work independently</p> <p>Work cooperatively with others</p>	<p>To perform tasks such as to:</p> <p>Work in coolers, freezers, and boilers rooms</p> <p>Work on rooftop units</p> <p>Work with fiberglass insulation</p> <p>Repair rooftop systems and units</p> <p>Troubleshooting air conditioning, heating, and boiler units in equipment rooms</p> <p>Work in enclosed, dusty environments when installing and repairing ducting</p> <p>Complete most tasks where two workers are not required</p> <p>Coordinate tasks with other trades</p>

Mental Requirements:	To perform tasks such as to:
Read, write, understand interpret, and apply moderately complex information	Read and interpret technical manuals and catalogs
Math skills at high school proficiency level	Plan installations, understand technical manuals, and make measurements
Judgement	Work around students and handle equipment in a safe manner
Learn quickly and follow verbal procedures and standards	Comply with district standards for safety
Decision-making	Choose a proper solution amongst a range of possible solutions

Other Conditions of Continued Employment:

- Speak English at a conversational level
- Wear protective clothing/safety gear in accordance with established standards
- Conform to a uniform code or dress standard
- Obtain and maintain in current status the licenses and certificates required by the district
- Participate in employer mandated training and re-training programs
- Comply with rules and regulations of the Classified Service and provisions of labor agreement

Adopted: 10/26/96