

CITY OF BELMONT

MAINTENANCE ELECTRICIAN

Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job.

DEFINITION

This is a journey-level electrician classification that works independently with minimal supervision completing a variety of skilled electrician tasks. This position performs a variety of complex and skilled work in electrical operations, maintenance, alteration and repair of electrical systems and equipment; installs, maintains, troubleshoots, and repairs street lighting, traffic control devices and pump station electrical components; locates, tests and repairs malfunctions of sanitary and storm pumping stations, underground cables and other electrical systems and equipment. This position also performs skilled electrical work on municipal buildings and facilities and other general maintenance duties as required.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the Public Works Field Supervisor. May provide technical supervision or assistance on related electrical work.

ESSENTIAL AND MARGINAL FUNCTION STATEMENTS – *Essential and other important responsibilities and duties may include, but are not limited to, the following:*

Essential Functions:

1. Inspect, diagnose, and repair faulty electrical wiring systems.
2. Perform electrical maintenance for pump stations, traffic signals and street lights, both underground and aerial.
3. Install new traffic signals, repair, maintain and program existing traffic signals.
4. Repair, service and maintain street lighting, pump station and communication systems.
5. Repair, install and make additions to existing installations of electrical systems in City buildings.
6. Provide technical assistance on complex electrical maintenance and repair projects.
7. Perform necessary construction work relative to electrical maintenance including use of all necessary light and heavy equipment.
8. Troubleshoot, repair and replace electrical components.
9. Keep accurate time and work records.
10. Perform skilled electrical maintenance and repair work involving street lighting systems, traffic signals, pump stations and municipal facilities and buildings.
11. Repair and replace defective or worn electrical parts in motors, generators, pumps, controllers, switches, and other facilities and equipment.

Essential Functions (cont'd):

12. Test, locate and repair damaged electrical circuitry.
13. Inspect newly installed electrical equipment and lighting to ensure safe and satisfactory functioning.
14. Assist and participate in the design of electrical systems as necessary.
15. Observe safe driving and work practices; use safety equipment and devices; secure work site from traffic and other hazards.
16. Install roadway banners on a weekly basis.

Marginal Functions:

1. Perform general maintenance work as required.
2. May direct the work of an assistant on assigned projects.
3. Respond to emergency calls during off-hours as required; participate as assigned or required in normal sewer stand-by rotation.
4. Perform other related duties and responsibilities as assigned or required.

QUALIFICATIONS

Knowledge of:

- Techniques, tools, equipment, and materials used in the diagnosis and repair of electrical and mechanical devices.
- Fundamentals of electricity, particularly as it relates to the operation of traffic signals and street lighting systems.
- Components and parts used in modern facilities lighting, pumping stations (sanitary sewer and storm), street lighting and traffic signals.
- Operation, maintenance, and repair of electrical meters, motors, testing devices and manual automatic electronic control equipment.
- Occupational hazards and standard safety precautions required in the course of work.
- Principles and procedures of record keeping.
- Basic mathematical principles.
- Pertinent federal, state and local codes, laws and regulations.
- Provisions of applicable local, state and federal electrical codes.
- OSHA rules and regulations.
- Basic computer skills relevant for the position including Microsoft Outlook, Word and Excel and other work related programs.

Ability to:

- Properly place cones, barricades and warning devices at job site.
- Prepare and maintain accurate records, reports and work estimates
- Work independently and make decisions relative to work methods and tools in the absence of supervision.
- Understand and follow oral and written instructions.
- Read, understand and interpret electrical blueprints, wiring diagrams and color-coded schematics.
- Work under emergency and hazardous conditions.
- Communicate clearly and concisely, both orally and in writing.
- Establish and maintain effective working relationships with those contacted in the course of work.
- Maintain physical condition appropriate to the performance of assigned duties and responsibilities.

Experience and Training Guidelines

Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Experience:

Three years of increasing responsible journey-level experience in the installation, repair, troubleshooting, replacement and maintenance of electrical equipment, systems and components found in waster, storm or potable water pump stations, plant maintenance or equivalent experience.

Training:

Equivalent to the completion of twelfth grade.

License or Certificate

Possession of, or ability to obtain, an appropriate, valid California commercial driver's license.
Possession of a CWEA Grade II PM Electrical/Instrumentation Certificate highly desirable.

WORKING CONDITIONS

Environmental Conditions:

Field environment; travel from site to site; exposure to noise, dust, grease, smoke, fumes, gases, potentially hazardous chemicals, high voltage, heavy traffic; inclement weather conditions; work around heavy construction equipment; work in an aerial lift at various heights up to 50 feet.

Physical Conditions:

Essential and marginal functions may require maintaining physical condition necessary for climbing, walking, standing or sitting for prolonged periods of time; heavy, moderate or light lifting and carrying; operating motorized equipment and vehicles; mid-range to distant visual acuity for operating equipment.