

CITY OF ARCADIA
TRAFFIC SIGNAL/STREET LIGHT TECHNICIAN

DEFINITION

Under direction performs skilled electrical work in the installation, repair, and maintenance of City street and parking lot lights, safety lights, and traffic signal systems. Performs predictive, preventative, and corrective maintenance as assigned; performs a variety of semi-skilled and skilled work in the maintenance, repair, alteration and construction of City buildings and facilities; and to do other work as required.

EXAMPLE OF IMPORTANT AND ESSENTIAL DUTIES

Installs, maintains, inspects, diagnoses malfunctions, and repairs City street lights and traffic signal systems including safety lights, traffic sensing mechanisms, traffic signal circuits, controllers, switches, relays, electronic controls, and other electrical apparatus.

Operates an aerial bucket truck and/or crane truck in the performance of a variety of electrical duties including repairing City street lights, safety lights, and traffic signals by replacing bulbs, wiring, fuses, circuit breakers, ballasts, and signal head parts.

Troubleshoots and repairs high voltage street light and electrical and panels; updates street light maps, wattage and voltage for inventory; inputs street light, signal inventory, and usage into computer database.

Inspects the construction and modification of new and existing traffic signal and control systems.

Installs and maintains overhead and underground traffic signal communication cabling; pulls wires and makes electrical connections required to tie in wiring, signals, vehicle detectors, and control cabinets.

Marks out underground utilities and irrigation lines as necessary including connecting and locating lights and lines; replaces underground high voltage cables.

Operates and maintains a variety of hand tools, power tools, pneumatic tools, trucks, and other equipment in the performance of assigned duties.

Prepares and maintains a variety of written records and reports; reads and interprets electrical and mechanical drawings and specifications.

Takes appropriate actions to prepare, maintain, and process daily and periodic logs, inspections, reports, and records.

Meets and works with contractors regarding electrical issues as necessary; responds to questions and inquires.

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Respond to emergencies after hours and perform stand-by duty as part of a regular rotation.

Orders and manages materials, equipment and supplies for the support of the related duties.

Perform related duties as required.

JOB RELATED AND ESSENTIAL QUALIFICATIONS

Knowledge of:

Operational characteristics of electrical systems and internal components.

Methods, practices and equipment used in building maintenance and repair services and activities including a variety of building trade work.

Principles, practices, techniques, tools, and materials used in the installation, maintenance, and repair of electrical or electronic systems and equipment.

Principles of electrical theory as applied to electrical circuits and wiring systems.

Operating characteristics and application of electrical test equipment.

Methods and techniques of troubleshooting and calibrating electric and electronic systems and components.

Preventive and corrective maintenance techniques.

Use and maintenance of a variety of power and hand tools.

Precautions necessary for working with electricity and high voltage.

Blueprint and symbol identification.

Basic principles of mathematics.

Office procedures, methods, and equipment including computers.

Principles and procedures of record keeping.

Occupational hazards and standard safety practices.

Pertinent federal, state and local codes, laws and regulations.

Ability to:

Perform a variety of installation, repair, and maintenance duties on high voltage electrical equipment, traffic signal devices and systems.

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Perform a full range of semi-skilled and skilled building maintenance and repair work.

Inspect, troubleshoot, diagnose, and repair electrical and electronic malfunctions.

Operate a variety of electrical testing, maintenance, repair, and installation equipment in a safe and effective manner.

Operate hand and power tools competently and safely.

Handle a variety of tasks with minimum supervision.

Maintain required work logs, records, and related operational maintenance data.

Prepare clear and concise written reports. Input all maintenance data into Maintenance Management System.

Perform mathematical calculations.

Read, interpret, and work from blueprints, electrical diagrams and schematics, manufacturer instructions, and directions.

Perform assigned work in accordance with appropriate safety practices and regulations.

Operate office equipment including computers.

Communicate clearly and concisely, both orally and in writing.

Establish and maintain effective working relationships with those contacted in the course of work.

Minimum Qualifications

Education/Training:

Equivalent to the completion of the twelfth grade supplemented by specialized training in the electrical trade.

Experience:

Three years of responsible experience in the maintenance and repair of electrical systems.

License or Certificate:

Possession of, or ability to obtain, an appropriate, valid class "A" driver's license.

Ability to obtain Level I Municipal Signal Association (IMSA) Certification.

PHYSICAL DEMANDS AND WORKING ENVIRONMENT

Environment: Work is performed in both indoor and outdoor field environment; travel from site to site; exposure to noise, dust, grease, smoke, fumes, vehicular traffic, electrical energy, and all types of weather and temperature conditions; work at heights in bucket truck and/or crane truck and ladders; frequent exposure to hazardous activities including high voltage electricity.

Physical: Primary functions require sufficient physical ability and mobility to walk, stand, and sit for prolonged periods of time; frequently stoop, bend, kneel, crouch, crawl, climb, reach, and twist; push, pull, lift, and/or carry moderate to heavy amounts of weights; dexterity of hands and fingers to operate specialized hand and power tools and equipment; operate assigned equipment and vehicles; verbally communicate to exchange information.

Vision: See in the normal visual range with or without correction; vision abilities required by this job include close, distance, and peripheral vision, color perception, depth perception, and the ability to adjust focus; and to operate assigned equipment.

Hearing: Hear in the normal audio range with or without correction.

Effective Date: May, 2009