

LEAD TRAFFIC SIGNAL TECHNICIAN

DEFINITION

To supervise, oversee, and perform a variety of skilled maintenance duties involved in the repair, maintenance and inspection of streetlight and traffic signal systems and components; and to install and modify traffic signal systems.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from higher level staff.

Exercises functional and technical supervision over lower level technical staff.

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

Examples of Essential Functions:

Lead, supervise and review the work of staff responsible for performing installation, repair, replacement and maintenance of all components of streetlight and traffic signal systems including poles and bases, mast arms, span wires, guy wires, signal and streetlight fixtures, controller cabinets and bases, conduit, junction boxes, and related wiring and circuitry in compliance with manufacturer's guidelines and state and federal regulations.

Receive work orders and allocate work to appropriate staff in the area of work assigned; instruct staff on technical aspects of work and sufficient information for work to be accomplished efficiently and to appropriate specifications.

Train assigned employees in their area of work in maintenance and repair methods, techniques, and installations and in the set-up and use of equipment.

Perform a full range of duties in assigned area of work when not engaged in supervisory activities.

Operate a variety of circuit testing and related tools and equipment to perform complex electrical and electronic repairs; operate a variety of power and hand tools including drills, drill press, wrenches, sockets, pliers, and screwdrivers.

Operate ladder truck to install, maintain and repair traffic signal systems; set wood poles and guy anchors; install guy cables, span cables, and service and controller cabinets; wire in pavement cuts and underground conduits and wire; construct and install signal induction loops; assist in digging ditches and pole bases as required.

Locate streetlight, signal, VMS, and traffic signal wiring for contractors and utility companies; interpret maps and drawings; operate electronic locator.

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Examples of Essential Functions:

Coordinate, review, and inspect the work of contractors installing traffic signal systems.

Maintain traffic signal and maintenance records; input data into computer.

Respond to traffic signal and street lighting emergency repairs as required.

Examples of Other Functions:

Calculate and change signal timing as needed to improve traffic flow and safety.

Prepare list of materials needed and recommend the purchase of tools and equipment needed for current and future signal maintenance and operation; locate and compile list of vendors and pricing information.

Answer questions and provide information to the public and City employees concerning traffic signal and street lighting activities.

Perform related duties and responsibilities as required.

QUALIFICATIONS

Knowledge of:

Electronic systems, including solid state component systems, digital electronics, and integrated circuits.

Principles of lead supervision and training.

Microprocessor technology as utilized in traffic signal systems.

Methods, materials and techniques used in the construction of traffic control system construction and maintenance projects.

Operational characteristics of mechanical and hydraulic equipment used in the installation and repair of electrical and electronic systems.

Electronic systems repair and preventative maintenance techniques and procedures.

Tools and equipment used in the maintenance and repair of electronic systems.

Uses and purposes of general construction tools and equipment.

Safe work practices.

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Basic principles of mathematics.

Ability to:

Perform the most difficult skilled maintenance and repair work related to traffic signal electronic systems and components and street lighting.

Lead, organize, and review the work of technical and maintenance staff in the area of work assigned.

Interpret and explain Department policies and procedures.

Operate a variety of vehicular and stationary mechanical equipment in a safe and effective manner.

Use and operate hand tools, mechanical equipment, and power tools and equipment required for the work in a safe and efficient manner.

Read and interpret electronic schematics, diagrams, drawings and plans.

Troubleshoot and solve electronic system defects.

Understand and follow oral and written instructions and sketches.

Work independently in the absence of supervision.

Apply good judgment and practical knowledge to resolve unusual or irregular problems in the area of work assigned.

Represent the Operations Superintendent in his/her absence.

Use a personal computer and basic software.

Communicate effectively, both orally and in writing.

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

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:

Six years of responsible experience in the electrical and electronic fields.

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Training:

Equivalent to the completion of the twelfth grade supplemented by specialized training in the electrical and electronic fields. College level course work in electronics or in electricity is desirable.

License or Certificate

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

Possession of, or ability to obtain, a flagging card within six months of hire.

Possession of, or ability to obtain, a valid CPR/First Aid card within three months of hire.

Possession of, or ability to obtain, an IMSA Level I traffic signal technician certification within six months of hire.

Possession of, or ability to obtain, an appropriate journey level electrician's certificate or IMSA Level II traffic signal technician certification within two years of hire.

Special Requirements

Successfully pass a city-paid medical evaluation.

WORKING CONDITIONS

Travel from site to site; some exposure to dust and noise; some heavy lifting, standing, climbing; may work at heights; work in inclement weather conditions; work in traffic.

OPERATING PRINCIPLES

Individuals are expected to work in a manner consistent with the City of Vancouver's Operating Principles; specifically: Work and act as a team player in all interactions with other city employees; provide a high level of customer service at all times; project and maintain a positive image with those contacted in the course of work; develop and maintain collaborative and respectful working relationships with team members and others; and, consistently provide quality service.

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