

TRAFFIC SIGNAL TECHNICIAN

DEFINITION

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

SUPERVISION RECEIVED AND EXERCISED

Receives direction from higher level 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:

Install, repair, replace and maintain 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 state and federal regulations.

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

Operate bucket 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; install wire in underground conduits; construct and install signal induction loops; assist in digging ditches as required.

Locate street light, signal, interconnect, and traffic signal wiring for contractors and utility companies; interpret maps and drawings; operate electronic locator.

Install, program, and trouble shoot video detection systems.

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.

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Examples of Other Functions:

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

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

Perform related duties and responsibilities as required.

QUALIFICATIONS

Knowledge of:

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

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 electronic systems.

Electronic systems repair and preventative maintenance techniques and procedures.

Video detection systems.

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

Uses and purposes of general construction tools and equipment.

Safe work practices.

Basic principles of mathematics.

Ability to:

Perform skilled maintenance and repair work related to traffic signal electronic systems and components.

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

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required for the work in a safe and efficient manner.

Ability to:

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.

Participate in and pass job related training identified for the position.

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:

Two years of responsible traffic signal experience.

Training:

Equivalent to the completion of the twelfth grade supplemented by specialized training in the electrical and electronic fields.

License or Certificate

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

Possession of, or ability to obtain, a class "A" commercial driver's license within three months of hire.

Possession of, or ability to obtain, IMSA Work Zone Safety and Traffic Control certification within one year of hire.

Possession of an appropriate journey level electrician's license or IMSA Level II traffic signal technician certification.

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IMSA Level II certification required within two years of hire.

Special Requirements

Successfully pass a city-paid medical evaluation.

WORKING CONDITIONS

Travel from site to site; exposure to dust and noise; some heavy lifting, standing, climbing; work at heights of 30 to 40 feet; work in inclement weather conditions.

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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Rev. 2001 dw
Rev. 1/03 RH/dw