



CLASSIFICATION NO. 446

Established: 12/93

Archived: 4/99

Reactivated, Revised and Retitled: 11/17

FLSA: Non-Exempt

EEO: 7

TRAFFIC SIGNAL ELECTRICIAN, LEAD

CLASS CHARACTERISTICS

Under direction, to perform skilled electrical work in the installation, maintenance and repair of traffic signals, electrical systems, and equipment; to oversee County and contracted personnel performing electrical installation, maintenance and repair; and to do other work as required.

DISTINGUISHING CHARACTERISTICS

The Traffic Control Section within the Transportation Engineering and Surveying Maintenance Division of the Department of Transportation and Development is responsible for the construction, maintenance and placement of traffic control devices on County roads. This Section performs activities involved in the design, layout, construction, installation and maintenance of all traffic control devices including traffic signs, traffic signals, traffic control lines and symbols, pavement marking and channelization.

The Traffic Signal Electrician, Lead is responsible for leading and coordinating the installation of electrical systems, fixtures and equipment. Most assignments involve traffic control signals and street lighting systems, however, the incumbent is also responsible for County facility projects the electrical system of the Canby Ferry and other electrical systems as required. The incumbent will also design and install electrical circuitry and perform preventive and corrective maintenance on electrical equipment and systems.

The Traffic Signal Electrician, Lead is distinguished from the Traffic Signal Electrician which performs skilled electrical work in the installation, maintenance and repair of traffic signal and lighting systems, but does not have lead work responsibilities.

TYPICAL TASKS

Duties may include but are not limited to the following:

1. Leads the work of assigned staff in the installation and maintenance of traffic signal equipment, street lighting systems and building electrical systems in the field or shop; plans, schedules, assigns and reviews completed work; provides technical assistance and training to assigned staff.
2. Obtains required electrical installation permits and inspects all installations performed under incumbent's supervising electrician's license; Evaluates quality and safety of subcontractor and general installations and repairs of traffic signal equipment, street lighting systems, building electrical systems electrical systems of the Canby Ferry and other electrical systems.

3. Installs, alters and maintains interior and exterior wiring systems, electrical circuits, fixtures and equipment; interprets electrical schematics, sketches and specifications; tests continuity of circuits to ensure electrical compatibility and safety of components.
4. Diagnoses malfunctioning electrical equipment; tests circuits and electric components to locate broken connections and defective current-control mechanisms; detects, replaces and repairs defective parts or modules and electronic relays, switches and circuits to the modular and/or component level.
5. Conducts preventive maintenance of electrical equipment and systems; inspects signals for proper operation; tests and adjusts timing functions of traffic signal controllers emergency preempt systems and auxiliary components.
6. Evaluates subcontractor installations and repairs of traffic signal equipment and street lighting systems; inspects quality and safety of work for compliance with specifications and local electrical codes.
7. Prepares and maintains accurate electrical repair and maintenance records and report Orders and/or purchases necessary repair materials, parts and components; documents compliance with local and national electrical codes.

REQUIRED KNOWLEDGE AND SKILLS

Thorough knowledge of: Standard practices, methods, tools and materials of the electrical trade; local, state and national electrical codes; occupational hazards and safety precautions involving electrical work and exposure to moving traffic.

Working knowledge of: Traffic signal and lighting construction and maintenance techniques; electrical, electromechanical practices and theory, including solid-state circuitry as applied to traffic signal maintenance and repair; basic techniques of supervision.

Skill to: Oversee, train and lead the work of assigned staff; maintain and repair wiring and electrical systems and equipment; operate electrical testing and measuring devices; operate power and manual tools standard to electrical trade; use pole and line construction equipment; understand and interpret drawings and specifications; prepare and maintain accurate records and reports, understand verbal and written instructions; communicate effectively both orally and in writing; establish and maintain effective working relationships with County staff, other agency personnel, subcontractors and the public.

WORKING CONDITIONS

Duties require squatting, kneeling, bending, balancing, climbing, digging, fine motor control, accurate color perception, and the ability to lift and carry up to 60 pounds, push 50 pounds, and pull 90 pounds. Duties also involve frequent exposure to electrical hazards, confined spaces, loud noises, exhaust fumes and dust, moving traffic, slippery and/or uneven surfaces, working at heights, and adverse weather conditions.

Must be available for after hours on-call emergency response to traffic signal and intersection warning beacon failures.

MINIMUM QUALIFICATIONS

Minimum qualifications are used as a guide for establishing the minimum experience, education, licensure, and/or certifications required for employment in the classification. The following minimum qualifications are established for this classification. Additional minimum qualifications and special conditions may apply to a specific position within this classification and will be stated on the job announcement.

Experience: A minimum of two (2) years of related experience that would provide the required knowledge and skills to perform the responsibilities of this position.

Licenses/Certifications:

The following licensure/certifications are required at the time of hire.

- General Journey Level Electrician's License issued by the State of Oregon.
- Certification at Level 1 Traffic Signal Field Technician issued by International Municipal Signal Association (IMSA).

PRE-EMPLOYMENT REQUIREMENTS

Driving is required for County business on a regular basis or to accomplish work. Incumbents must possess a valid driver's license. Incumbents must possess and maintain an acceptable driving record throughout the course of employment.

Must pass a pre-employment drug test (DOT Regulations for CDL).

Employment is contingent upon passing a post-offer physical assessment. Accommodation requests will be reviewed on an individual basis in compliance with State and Federal legislation.

POST-EMPLOYMENT REQUIREMENTS

Certification at Level 2 Traffic Signal Field Technician issued by IMSA within one year of hire.

Valid Class B Commercial Driver's License (CDL) with no restrictions in order to drive manual transmission and full air brake vehicles and Hazardous Materials endorsement required within 6 months of hire.