

# **SNOHOMISH COUNTY JOB DESCRIPTION**

## **TRAFFIC SIGNAL TECHNICIAN AND ELECTRICIAN I**

Spec No. 7009

### **BASIC FUNCTION**

To perform journey level electrical and electronic work in the design, inspection and servicing of traffic signal and related data communication networks and in the installation, maintenance and repair of electrical systems, conduit, and equipment.

### **STATEMENT OF ESSENTIAL JOB DUTIES**

1. Installs, maintains and repairs traffic control systems; tests and adjusts signal controllers and auxiliary components including the phasing, sequencing and timing of signal controllers; may assist in testing, adjusting and maintaining auxiliary components including ITS and other technological improvements.
2. Installs, tests, and terminates fiber optic cable and related equipment.
3. Participates in the design and construction of traffic signal systems including laying out signal head conduit runs and conduit size for roadways intersections, wiring, phasing, timing and loops of traffic signals.
4. Reviews traffic systems designed by consultants for technical adequacy; makes periodic inspections of contractor's work to ensure signal installations are constructed according to plans and specifications.
5. Maintains electrical motors and controls for Public Works machinery and equipment, including radio system equipment.
6. Cleans, paints, repairs, installs, and relamps signal heads as necessary; repairs, installs, and relamps pedestrian signal heads as necessary; repairs, installs, and replaces overhead and underground wires and fiber optic cable as necessary; installs overhead street signs as necessary.
7. Installs, maintains and repairs electrical distribution circuits in a variety of structures including all integral parts such as wiring, switch boxes, light fixtures, outlets and distribution panels.
8. Interprets blueprints, sketches and other instructions; may draw or sketch work to be performed.

### **STATEMENT OF OTHER JOB DUTIES**

8. May assist, train, and/or provide guidance to temporary help and/or lower level maintenance personnel as required.
9. Performs related duties as required.

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#### **MINIMUM QUALIFICATIONS**

Technical training in electronics; AND, three (3) years of experience in the installation, maintenance and repair of traffic signals including the electrical, electronic, and mechanical components of traffic signal systems; OR, any equivalent combination of training and/or experience that provides the required knowledge and abilities. Must pass job related tests.

#### **PREFERRED QUALIFICATIONS**

A Commercial Driver's License is preferred.

#### **SPECIAL REQUIREMENTS**

A Washington State Driver's License is required.

A job offer will be conditioned on satisfactory results of a driver's license abstract.

International Municipal Signal Association (IMSA) certification as a Traffic Signal Technician, is required. Must be able to obtain the International Municipal Signal Association (IMSA) Level II Field Certification or Bench Certification within six (6) months of employment.

A valid Washington State Department of Labor Electrician License (EL01), or the ability to obtain one within six (6) months of employment, is required.

Possession of Certification by Fiber Optic Installer Association (FOA) or Building Industry Consulting Services International (BISCI) equivalent, or the ability to obtain one within the first year of employment, is required.

Possession of confined space entry certification and respirator operation certificate, or the ability to obtain one within the first year of employment, is required. Must maintain a valid confined space entry certification while in position.

Possession of or ability to obtain and maintain a valid State of Washington Traffic Flagging card within six (6) weeks of being hired.

Possession of a valid First Aid/CPR Card, or the ability to obtain one within six (6) months of employment, is required.

All Traffic Signal Technician and Electrician I's are subject to random drug and alcohol testing.

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#### KNOWLEDGE AND ABILITIES

Knowledge of:

- the design and construction of traffic signal systems;
- tools, materials, methods and techniques associated with the electrical trade;
- installation, maintenance and repair practices and procedures associated with traffic signal systems;
- relevant electrical codes;
- the hazards associated with the work;
- safety rules and regulations;
- basic first aid methods and procedures;
- principles and practices of personal computer usage, especially traffic signal equipment interfaces, word processing and database entry.

Ability to:

- perform all phases of electrical work;
- diagnose and troubleshoot defects in traffic signal systems and equipment and perform needed repairs;
- design, maintain and repair traffic signal and auxiliary components including various communication and data systems;
- use a wide variety of hand and power tools skillfully and safely under a variety of work conditions;
- perform strenuous physical work;
- establish and maintain effective working relationships with other county employees, representatives of other agencies and with the general public;
- communicate effectively both orally and in writing;
- install, terminate, test and repair fiber optic cable and related equipment.

#### SUPERVISION

Employee reports to an administrative superior as assigned.

#### WORKING CONDITIONS

The work is performed both indoors and outdoors in all types of weather at work sites throughout the county. Employees are exposed to a variety of hazards such as working near traffic, around heavy equipment or high voltage power lines, and are exposed to dust, fumes, grease, inclement weather, etc. This position is on call 24 hours per day, on a rotational basis, responding to traffic signal emergencies and emergencies involving other electrical assets operated and maintained by Snohomish County. The work may involve working at considerable heights, in confined spaces such as crawl spaces and manholes, or from ladders, or a hydraulic boom truck.

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Employees are required to work evenings, weekends and holidays as necessary.

Snohomish County is an Equal Employment Opportunity (EEO) employer.  
Accommodations for individuals with disabilities are provided upon request.

[EEO policy and ADA notice](#)

Class Established: June 1977 as Traffic Signal Technician

Previous Spec No. 810856

Revised: March 1986; February 1993; December 1995; November 2009; May 2019, December 2020

EEO Category: 7 – Skilled Craft Workers

Pay Grade: 240 – Classified Pay Plan

Workers Comp: 1501 Hazardous