City of Bellingham
Classification Specification

CLASS TITLE	**Traffic Signal Technician I, Traffic Signal Technician II, Traffic Signal Technician III**
DEPARTMENT	**Public Works\Operations**
UNION:	**1937**
SG:	**111/113/114**
CS:	**Yes**
FLSA:	**Y**
EE04CODE:	**TE/53-6040**

NATURE OF WORK:

This series performs progressively responsible and skilled work in the installation, maintenance and repair of a variety of electrical and electronic systems including traffic controllers, fiber optic networks, street lighting, video surveillance systems, parking controls and other electrical and electronic equipment as assigned by the supervisor. Work includes physical modification and installation of traffic signal, closed circuit television (CCTV) and street lighting systems, parking control systems, which involves electrical/fiber optic cabling and associated network equipment. Responsible for the repair and maintenance of the City's intelligent transportation systems (ITS) in the transportation infrastructure including traffic control devices and street lights.

All technicians in this job classification are responsible for assuring the technical correctness of their own work; scheduling work priorities; determining materials and equipment requirements; maintaining related work records; implementing field changes as necessary; and assist with necessary training for lower classified staff.

DISTINGUISHING CHARACTERISTICS:

Traffic Signal Technician I is the entry journey-level position in the Traffic Signal Technician series and performs uncomplicated to moderately complex work. A person hired into this position will receive additional training in the installation, maintenance and repair of traffic signals, parking controls, and various electrical systems and equipment. An individual in this position will move to the Traffic Signal Technician II level in a non-competitive promotion upon completing 2 years as a Traffic Signal Technician I and obtaining an International Municipal Signal Association (IMSA) Traffic Signal Technician Level I certification.

Traffic Signal Technician II is the journey level position in the Traffic Signal Technician series. In accordance with the principals, theories and practices in the electrical and/or electronics field, the Traffic Signal Technician II is expected to perform the full range of routine to complex installation, maintenance, and repair of electrical and electronic equipment and fixtures for the city's signal systems and parking control equipment. This work includes the installation, maintenance, and repair of all traffic control equipment and parking controls equipment. An individual in this position will move to the Traffic Signal Technician III level after completing two (2) years as a Traffic Signal Technician II and obtaining International Municipal Signal Association (IMSA) Traffic Signal Field Technician Level II certification. Note: A person with the requisite experience and training may be hired in at the Traffic Signal Technician II level.

Traffic Signal Technician III is the advanced journey-level classification in the series. This position performs more complex installation, maintenance and repair work on a variety of electrical and electronic systems. This work includes routinely addressing higher level maintenance, troubleshooting, repair, installation, and technical tasks. The Traffic Signal Technician III is distinguished from the Traffic Signal Technician II by the degree of technical expertise, knowledge, skills, and abilities both possessed and used to accomplish work. Traffic Signal Technician III shares knowledge and teaches necessary skills to co-workers. An individual in this position must possess or obtain an International Municipal Signal Association (IMSA) certification as a Traffic

Signal Technician Level III within two (2) years of hire or promotion. Note: A person with the requisite experience and training may be hired in at the Traffic Signal Technician III level.

SUPERVISORY RELATIONSHIPS:

Reports to the Traffic Operations Engineer. Works independently under general supervision in accordance with applicable City and departmental policies, procedures and standards. Traffic Signal Technician I and Traffic Signal Technician II receives work direction and training from the Traffic Signal Technician III. Works independently under the guidance of National Electric Code (NEC), National Electrical Manufacturer Association (NEMA) codes and standards, Manual on Uniform Traffic Control Devices (MUTCD), State and local traffic laws and ordinance, as well as City and departmental policies, procedures and safety rules.

ESSENTIAL FUNCTIONS:

1. Installs, maintains, operates, and repairs all new and existing traffic signal equipment including controllers, CCTV camera communications systems, school zone management systems, automated street light management equipment, parking control equipment and other electrical systems as required.

2. Installs and maintains fiber optic cable, switches, auxiliary components, pay station controllers, and payment processing hardware.

3. Installs signal timings, parking zone timings, and coordination and time of day plans.

4. Troubleshoots traffic signal controllers, automated street light equipment, parking control equipment, related equipment and facilities, and diagnose malfunctions.

5. Observes traffic signal and parking components to ensure reliable and efficient operations of the signal and parking payment systems.

6. Performs quarterly preventative maintenance on all traffic signals, school zone systems, camera control systems and automated street lighting system. Checks equipment and diagnoses faulty equipment by examining for signs of damage or wear, analyzes symptoms and performs tests using standard diagnostic electronic tools. Replaces defective components and wiring and adjusts or repairs any mechanical parts.

7. Assists in investigating and responding to complaints and requests related to the traffic signal or street light maintenance and repair.

8. Establishes and maintains detailed maintenance and repair records. Keeps accurate work records; orders supplies, parts and materials.

9. Operates lift equipment including, but not limited to, the boom truck and the bucket truck.

10. Tests the operation of new equipment in the workshop prior to installation; constructs special equipment; modifies existing equipment as necessary to meet unique situations.

11. Provides technical expertise, assistance, and guidance to staff.

ADDITIONAL WORK PERFORMED:

1. Provides training and shares knowledge in the installation, maintenance and repair of traffic signals, parking controls equipment and various electrical systems and equipment.

2. Assists with the procurement of equipment, maintenance parts and supplies for the Traffic unit.

3. Performs related duties within the scope of the classification.

KNOWLEDGE AND SKILLS:

Knowledge of:
- Solid state electronics repair practices, standards and methods.
- Manual on Uniform Traffic Control Devices (MUTCD).
- National Electric Code (NEC)
- National Electrical Manufacturer Association (NEMA).
- Knowledge and understanding to install, test, and repair fiber optic cable, switches and auxiliary components.

Skills in:
- Good oral and written communication skills.
- Diagnosing, repairing and maintaining a variety of electrical and electronic systems.
- Using and caring for the tools, equipment and materials of the electrical trade.
- Reading and understanding electrical and electronic schematics, engineering plans, specifications, and wiring diagrams.
- Establishing and maintaining cooperative and effective working relationships with coworkers, supervisors, other city staff, and the public.

Ability to:

- Operate a laptop and a variety of testing software for diagnosing and troubleshooting;
- Work safely around high voltage circuits; ability to apply proper safety procedures when working in traffic; ability to work from boom trucks at a height of up to 50 feet; willingness and ability to climb communications towers.
- Support diversity and multi-cultural understanding in the workplace.
- Adapt and flex to schedule changes as necessary, and willingness to accept "call out" status for emergency situations.
- Maintain consistent and punctual attendance.
- Ability and willingness to demonstrate the Public Service Competencies of Service Orientation, Results Orientation, and Teamwork and Cooperation.
- Physically perform the essential functions for the job including:
    - Adequate hearing to effectively hear voice radio and telephone conversations, road way traffic, and alarms in a noisy environment;
    - Manual and finger dexterity sufficient to manipulate small objects;
    - Adequate vision to view computer terminals, perform close work and distinguish between color-coded electronic parts;
    - Climb ladders and lift/carry bulky, heavy objects such as signal heads (approximately 60 lbs.).

WORKING ENVIRONMENT:

May work indoors or out of doors up to 100% of the time (depending upon assignment). Indoor work in performed in an office setting, using computers, phones and other office equipment. Out of doors work is performed on the site of electrical and electronic work projects and the hazards normally associated with electrical and electronic work are present, such as the exposure to high voltage equipment, working from heights, and exposure to vehicular traffic while working in streets. Lighting may be limited, movement may be restricted, loud noises may be present, and terrain may be rugged. Sites may be wet and slippery. All weather conditions should be expected. Technicians should expect to perform tasks requiring some strenuous physical effort such as lifting heavy objects, including signal heads.

EXPERIENCE AND TRAINING REQUIREMENTS:

TRAFFIC SIGNAL TECHNICIAN I:

- Two (2) years of related experience in the installation, maintenance and repair of traffic signals or street lighting including the electrical, electronic and mechanical components of traffic signal systems, solid state devices, or related electronics including electronic meters and automated pay stations.

OR

- Successful completion of a two year electronics degree or certificate program from an accredited community college, technical or trade school or military electronics school.

AND

- Possession of a current International Municipal Signal Association (IMSA) Work Zone Temporary Traffic Control Technician certification is desirable at entry and required within one (1) year of hire. Must obtain IMSA Traffic Signal Technician Level I Certification within two years of hire.

TRAFFIC SIGNAL TECHNICIAN II:

- Four (4) years of experience in the installation, maintenance and repair of traffic signals and street lighting including the electrical, electronic and mechanical components of traffic signal systems, solid state devices, or related electronics including electronic meters and automated pay stations

OR

- Successful completion of a two year electronics degree or certificate program from an accredited community college, technical or trade school or military electronics school.

- Two years of experience in the installation, maintenance and repair of traffic signals and street lighting including the electrical, electronic and mechanical components of traffic signal systems, solid state devices, or related electronics including electronic meters and automated pay stations.

AND

- Possession of a current International Municipal Signal Association (IMSA) Traffic Signal Technician Level I certification. Must obtain IMSA Traffic Signal Field Technician Level II certification within two years of hire or promotion into the Traffic Signal Technician II position.

TRAFFIC SIGNAL TECHNICIAN III:

- Six (6) years of experience in the installation, maintenance and repair of traffic signals and street lighting including the electrical, electronic and mechanical components of traffic signal systems, solid state devices, or related electronics including electronic meters and automated pay stations

OR

- Successful completion of a two year electronics degree or certificate program from an accredited community college, technical or trade school or military electronics school.

- Four years of experience in the installation, maintenance and repair of traffic signals and street lighting including the electrical, electronic and mechanical components of traffic signal systems, solid state devices, or related electronics including electronic meters and automated pay stations.

  AND

- Possession of a current International Municipal Signal Association (IMSA) Traffic Signal Field Technician Level II certification.

- Possession of a current IMSA certification as a Traffic Signal Technician Level III is desirable at entry and required within two (2) years of hire or promotion into the Traffic Signal Technician III position.

NECESSARY SPECIAL REQUIREMENT:

- Employment contingent upon passing a criminal conviction and local background check.
- Valid Washington State driver's license and good driving record. Candidate considered for hire must submit an abstract of his/her driving records for the past three-years; with biennial submission of driving abstract (Policy ADM 10.03.02.4).
- Ability to secure a Commercial Driver's License within six months of hire, and to maintain a valid CDL during the length of employment.
- Must secure a Certificate of Completion for Paystation Software & Hardware Training within 6 months of hire.
- Must secure minimum 5 clock hours of current International Parking Institute (IPI).
- Willingness to work varied shifts including evenings and weekends as assigned.
- Must be able to report to Operations Division for emergency call out within one (1) hour response time.
- Failure to secure required certification or skill standards within established time limits will result in dismissal.

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COMMISSION ADOPTION: September 14, 2016