

## CITY OF BELLINGHAM

### JOB DESCRIPTION

**JOB TITLE:** Traffic Operations Engineer

**UNION:**231

**DEPARTMENT:** Public Works, Operations Division

**SG:**6

**CS:**N

**FLSA:**N

**EEO4CODE:**PR

#### **JOB SUMMARY:**

Responsible for oversight of the Traffic, Signs and Markings section of the Public Works Department. Supports the Superintendent of Traffic in the day-to-day operation of the City's transportation systems. Develops and implements traffic signal timing and coordination plans. Utilizes Intelligent Transportation System (ITS) components such as video surveillance equipment, data collection stations, variable message signs, and closed-loop traffic signal software to remotely monitor and enhance arterial street traffic safety and efficiency. Conducts traffic studies and performs traffic signal warrant and level-of-service (LOS) calculations. Assists in developing proposals and funding applications to enhance traffic safety and efficiency. Provides technical assistance regarding traffic signal and street lighting design. Handles requests for information and resolves complaints. Provides technical support to City managers, consultants and developers.

#### **SUPERVISORY RELATIONSHIPS:**

Reports to the Superintendent of Traffic. Works under general supervision and the guidance of City and Departmental policies and procedures as well as applicable City, State, and Federal laws, regulations, and rules. Supervises and assigns work to lower level employees in the Traffic, Signs and Markings section.

#### **ESSENTIAL FUNCTIONS OF THE JOB:**

1. Plans, organizes and directs the day-to-day operations of the Traffic, Signs and Marking section of the Public Works Department. Participates in the development and implementation of goals, objectives, policies and priorities for the section. Establishes and organizes work priorities, schedules and work assignments; coordinates availability of materials, equipment and personnel. Reviews daily accomplishments and modifies work priorities as necessary. Ensures work standards adhere to regulations, policies and procedures.
2. Effectively hires, trains, supervises, evaluates and manages performance of assigned staff. Recommends and delivers disciplinary action as needed. Reviews and approves employee timesheets and oversees scheduling of staff. Establishes systems and methods for training, motivating and a system of communication and cooperation among staff.
3. Develops and implements signal timing and coordination plans for stand-alone signalized intersections and closed-loop Econolite and PEEK signal systems.

4. Operates ITS equipment and monitors peak traffic congestion. Develops and implements special traffic responsive signal timing parameters to accommodate unusual traffic flows caused by traffic accidents, construction detours, holidays, etc.
5. Coordinates with Washington State Department of Transportation (WSDOT) and other relevant agencies in developing signal timing plans and implementing modifications to traffic signals, street lighting, and channelization plans.
6. Develops plans for improving the safety and efficiency of the City's arterial street system by implementing ITS programs or other improvements to traffic signal operations such as adding protected/permissive or protected only left turn phasing, restricting driveway access, and modifying channelization plans to incorporate new or longer left-turn storage lanes.
7. Assists in the design of traffic signal and street lighting systems.
8. Participates in the development and administration of the section's annual budget; forecasts funds needed for adequate staffing, equipment, materials and supplies. Monitors expenditures and implements adjustments.
9. Conducts traffic studies and evaluates traffic accidents to determine if modifications to traffic signal timing, phasing or operations are necessary.

**ADDITIONAL WORK PERFORMED:**

1. Performs other related work of a similar nature or level.

**PERFORMANCE REQUIREMENTS (Knowledge, Skills, and Abilities):**

Knowledge of:

- Traffic engineering principles, standardized practices, and nationally recognized guidelines related to transportation studies and systems.
- Local, State and federal laws related to traffic and transportation.
- Traffic signal system management, traffic signal controllers and field equipment, closed-loop signal software and signal timing optimization software including Synchro, Aries, and CLMATS.

Skill in:

- Demonstrated skill in using the Manual on Uniform Traffic Control Devices (MUTCD) as it relates to traffic signals, signing and pavement marking.
- Implementing effective programs related to traffic and transportation by conducting studies and analyzing information.
- Demonstrated skill in drafting time-space diagrams, analyzing closed-loop signal system detector information, and implementing coordinated signal timing plans. Skill in uploading and downloading signal timing information in the field via a laptop PC and optimizing signal timing plans for stand-alone intersections.
- Designing traffic signal and street lighting systems and writing specifications for bidding signal construction projects.

Ability to:

- Communicate effectively both orally and in writing, and to foster a team work environment.
- Establish and maintain effective working relationships with diverse groups including fellow employees, City officials, governmental agencies, community groups, developers, transportation consultants and the general public.
- Maintain consistent and punctual attendance.
- Ability and willingness to demonstrate the Public Service Competencies of Service Orientation, Results Orientation and Teamwork and Cooperation.
- Physical ability to perform the essential functions of the job, including:
  - Adequate hearing, correctable vision, and manual dexterity.
  - Frequently operate a computer and read a computer screen or typewritten page;
  - Move between work sites;
  - Ability to occasionally lift light weight (up to 35 lbs.).
  - Occasionally traverse uneven terrain.

**WORKING ENVIRONMENT:**

Works in an office setting with extensive work at a computer work station and occasional fieldwork. Works outside in all weather conditions to observe traffic patterns and adjust signal timing and to conduct traffic studies.

**EXPERIENCE AND TRAINING REQUIREMENTS:**

- Bachelor's degree in civil engineering, transportation planning or related field with special emphasis on transportation. Four years of progressively responsible general transportation planning experience may substitute for bachelor's degree.
- Three years of specialized experience in working with traffic signal and lighting systems.
- An equivalent combination of education and experience sufficient to provide the applicant with the knowledge, skills, and ability to successfully perform the essential functions of the job will be considered.

**NECESSARY SPECIAL REQUIREMENTS:**

- Valid Washington State driver's license and good driving record. Must submit a three-year driving abstract prior to hire.
- Employment contingent upon passing a criminal convictions check and child and adult abuse records check.

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1/01

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