

## **ENGINEERING TECHNICIAN 1**

### **1. Nature and Scope of Work**

This position provides technical support across a wide range of municipal engineering functions. It involves the application of municipal bylaws and fee schedules in the calculation of servicing estimates, along with the application of standard costing principles and methods to the development of estimates for custom servicing and public works projects. There is a significant field work component which involves tasks such as layout and grade setting for public works crews, along with data collection for municipal records.

### **2. Illustrative Examples of Work**

- Processes applications for municipal services (storm sewer, sanitary sewer, water supply, main extensions, driveway crossings, hydrants, sidewalk); develops cost estimates for payment by applicant.
- Performs survey work required for the installation and maintenance of municipal infrastructure; maintains field notes and sketches; reduces field notes to cross sections and profiles; uses available technology such as GPS or other portable devices suitable for field work.
- Collects and records survey information relative to municipal infrastructure; uploads to central database.
- Guides auxiliary seasonal employees in tasks such as survey layout, field data collection, cross-connection investigation and public relations.
- Under supervision, designs and prepares cost estimates for public works projects, typically related to the servicing of real property.
- Responds to inquiries from and provides information to contractors, homeowners, municipal employees, utility companies and others regarding municipal services and other issues within the jurisdiction of the Engineering Department.
- Generates routine work orders for Public Works Department.
- Uses video equipment to inspect condition of sewer and storm drain mains; maintains and analyzes video inspection records.
- Performs routine engineering data input for geographic information system; generates reports from GIS database.

- Maintains a variety of records, including as-built drawings, related to municipal infrastructure and traffic data.
- Sets up and downloads information from traffic counters and similar devices for inclusion in traffic speed and volume reports.
- Maintains contacts, attends meetings and interacts with personnel in other local governments on a variety of engineering matters.
- Checks for cross-connections and other potential environmental hazards.
- May carry out drafting tasks such as plotting profiles and cross-sections; design drawings for roads and other public works projects.
- Performs other related duties arising out of the functions of the Engineering Department.

### **3. Required Knowledge, Abilities and Skills**

- Thorough working knowledge of the full range of work carried out by an Engineering Department in an urban municipality.
- Strong aptitude for learning new procedures and making effective use of changing technology affecting the engineering field.
- Facility with standard GIS programs at the user, data-entry and basic report generation levels; basic working knowledge of manual and computer-aided drafting techniques and programs, along with standard office spreadsheet, database and word processing software.
- Thorough working knowledge of basic surveying principles and methods, with ability to apply with accuracy in the field using standard survey tools and technology.
- Good working knowledge of municipal bylaws and regulations relating to engineering issues.
- Ability to apply municipal engineering technical and mathematical principles, formulas, techniques and concepts to the resolution of concrete technical issues and problems.
- Ability to interpret and apply engineering technical data, plans, specifications and data.
- Ability to deal with contractors, homeowners, municipal employees, utility companies and others with professionalism, courtesy, tact, while maintaining independence and objectivity in the application of regulations and bylaws.

- Ability to work cooperatively and productively with municipal employees inside and outside the Engineering Department, and to provide timely and accurate engineering technical support when required.
- Ability to communicate clearly and professionally orally and in writing.
- Sufficient physical stamina and general health to carry out light manual work outdoors in a variety of conditions.

#### **4. Required Training and Experience**

- Graduation from a two year diploma program in civil engineering technology offered by an institute of technology or equivalent post-secondary institution, augmented by four years' experience directly related to the core work of the position.

#### **5. Required Licences, Certifications and Registrations**

- Valid and subsisting British Columbia drivers' licence (use of personal vehicle for municipal business is required).