

Engineering Technologist II

DEFINITION

This is complex and independent technical or supervisory level work involving a variety of field and office engineering programs and projects of moderate size and scope.

The work involves the application of quasi-professional engineering knowledge gained through education and work experience. Work covers a variety of complex technical field and office assignments. Incumbents perform complex technical and/or supervisory duties in a significant component of engineering related planning, forecasting or modelling, design; construction; project control; estimating or costing, maintenance projects or programs; or specialized programs such as private development agreements, local improvements or land documentation. The projects are such that they require the employee to consider a range of variables to solve problems and complete projects. Employees exercise initiative and work independently with contractors, field crews, draftsmen and other technical and professional employees. Employees verify the work of others as to adherence and accuracy of work to plans, schedules and specifications.

Incumbents may supervise entry level technologists, clerks or other employees as well as give guidance and direction to contractors or field crews. Normally a professional or technical supervisor assigns work and reviews; results via status reports, inspections or final results achieved. A technical or professional supervisor is available to give guidance and approve decisions not included in original instructions or program/project parameters.

The work of this class is distinguished from that of the Engineering Technologist I class by the greater scope and complexity of work, the impact of decisions or program, the independence exercised and the degree of supervision received or exercised. Work of this class often takes the form of total project involvement from initiation to completion whereas work at the Engineering Technologist I class is more fragmented and routine in nature. Where there is total project involvement at the Engineering Technologist I level, project variables are more routine and standardized and usually relate to the installation or modification of residential servicing.

TYPICAL DUTIES*

Assigns, supervises and checks the work of subordinates, as required.

Reduces field notes and prepares preliminary design and construction plans, utilizing all available field and recorded data; established alignment and grades.

Recommends specifications for tenders; prepares tenders and initiates work orders; determines construction requirements and estimates costs; determines size and location of services required; arranges for land easement.

Collects technical data for project design, analyzes data and recommends course of action, as well as alternative.

Designs and provides layouts for surface, underground and serial systems; proposes design revisions and prepares working drawings.

Prepared scaled and detailed plans, maps and charts using a variety of material such as photographs, site inspections and survey notes.

Corresponds with contractors and the general public; advises of work procedures, requirements and costs; prepares contractor periodic progress payments.

Directs and inspects the work of departmental crews or contract crews engaged in maintenance and construction projects; establishes lines and grades for routine projects.

Interprets specifications and design requirements for subordinates or contractors representatives; checks for quality, material and workmanship on City and contract work.

Develops and/or uses complex computer models to forecast the level of required services and the cost of such services under different scenarios.

Specifies the detailed scheduling of projects performed by in-house construction crews, monitors progress and reviews as necessary. Range of projects scheduled will span an entire department of a significant component of a department.

Applies knowledge of computer applications in the development and enhancement of engineering models; applies computer applications in the design, scheduling and costing of projects.

Performs related work as required.

KNOWLEDGE, ABILITIES AND SKILLS

Considerable knowledge of the technical and engineering principles and practices related to the work assignments.

Considerable knowledge of applicable bylaws, standards and regulations pertaining to work.

Considerable knowledge of the engineering terminology and techniques related to the work assigned.

Ability to plan, assign and supervise the work of subordinates.

Ability to meet and deal effectively with contractors, developers and the general public, and to enforce rules and regulations with firmness, impartiality and good judgement.

Ability to communicate verbally and in writing with preciseness and accuracy.

Ability to operate instruments and equipment related to the work assignments.

Ability to read, interpret and design advanced plans, specifications, diagrams and charts of a complex technical nature.

Physical ability to perform outside work in all types of weather and areas related to the work assignments.

Ability to apply current computer software to a wide variety of applications including the design, costing and scheduling of projects, as well as the development of models and generation of reports.

TRAINING AND EXPERIENCE REQUIREMENTS

Job Level

Completion of a two (2) year diploma in an appropriate Engineering technological program and a minimum of five (5) years' experience related to the work assigned. Applicant(s) must be eligible to be recognized as a Certified Engineering Technologist (C.E.T.) with ASET and must possess a valid Alberta Driver's License.

** This is a class specification and not an individualized job description. A class specification represents and defines the general character, scope of duties and responsibilities of all positions within a specific job classification. It is not intended to describe nor does it necessarily list the essential job functions for a specific position in a classification. Positions may perform some of the duties listed above but this does not necessarily qualify for placement into this classification.*

Salary Plan	<u>21M</u>	<u>21A</u>	<u>21B</u>	<u>21C</u>
Job Code	0679		0680	
Last Updated:	1989-01			
Previous Updates:				
Originated:				