

**Job Class Profile: Engineering Technician III****Pay Level: CG-35 Point Band: 766-789**

Factor	Knowledge	Interpersonal Skills	Physical Effort	Concentration	Complexity	Accountability & Decision Making	Impact	Development and Leadership	Environmental Working Conditions	Total Points
Rating	5	4	2	5	4	5	5	3	4	
Points	233	67	13	24	120	108	103	64	43	775

**JOB SUMMARY**

The Engineering Technician III performs sub-professional engineering and administrative work in a variety of field and office engineering assignments usually involving large and complex projects ensuring that contracting firms adhere to the approved specifications, requirements, construction schedules, progress reporting, safety measures and related details for the proper construction of complex government construction projects.

**Key and Periodic Activities:**

- Carries out project supervision and administration of complex construction projects to ensure that work is carried out on budget, on time and quality and quantity control are maintained. Signs off on contract progress payments. Supervises subordinate project staff including assigning and scheduling work, checking and signing off on payroll, recommending leave, conducting jobsite meetings, safety talks and orientations.
- Conducts periodic inspections on work in progress and final inspections on complex capital and maintenance projects to ensure adherence to plans, specifications and standard engineering practices, resolves technical problems and approves changes within limits.
- Prepares engineering design plans and technical specifications for various construction and renovation projects utilizing computer software.
- Conducts site assessments for construction projects.
- Prepares pre-tender cost estimates and tender packages for capital projects which include scope of work and supplementary conditions. Acquires permits from appropriate regulatory agencies as required.
- Conducts inspections/investigations related to Referrals for Crown Lands and Development Control applications for development near provincial highways and completes Approval in Principle for Access and Development Inspection Report forms.

**SKILL****Knowledge****General and Specific Knowledge:**

- Knowledge of various software for spreadsheet, database and design applications
- Knowledge of construction contracts, specifications and standards

- Knowledge of various construction methods and practices

**Formal Education and/or Certification(s):**

- Minimum: 3-year Diploma in Engineering Technology

**Years of Experience:**

- Minimum: 4-5 years

**Competencies:**

- Strong computer skills.
- Project management skills.
- Ability to communicate with others.
- Ability to investigate/inspect applications for development.

**Interpersonal Skills**

- A range of interpersonal skills are mainly listening to receive instructions and obtain guidance, and asking questions to gain information for work processes, to report routine information, communicating complex ideas to others, gaining the cooperation of others to complete work and address issues, and dealing with conflict or contentious situations with contractors, staff and the general public.
- Communication occurs with co-worker/employees in the department, supervisors/manager, contractors and general public.
- Most significant interactions are daily with contractors during construction season, co-workers/employees in the department to assign and review work or provide advice and immediate Supervisor to report on projects and get direction, advice and consultation.

**EFFORT**

**Physical Effort**

- Work occasionally results in considerable fatigue requiring periods of rest.
- Work also requires occasional lifting of equipment, tools, and construction materials.
- Requires standing and walking for extended periods when on construction sites or conducting site investigations, regular driving, and fine finger work when at the computer and using measurement instruments.

**Concentration**

- **Visual** concentration, the need for **exact results and precision, alertness for the health and safety** of self and others is a regular requirement and **higher than normal levels of alertness** may be required when working on construction projects, working around heavy equipment, inspecting operating waste and water treatment facilities and industrial sites, pressure testing of systems and/or in the field.
- **Auditory** concentration is required when working and listening to conversation on noisy work sites and listening for problems with equipment or leaks in water systems.
- Field work involves the use of precision technology and measuring instrumentation that requires **visual concentration, eye/hand coordination and exactness**. Preparing tender documents with designs and specifications with AutoCAD, updating databases, using GIS software to produce maps all require high levels of concentration.

- There are also occasionally **other sensory demands** such as: olfactory/smell concentration for odours from gases, water quality, petroleum products; tactile/touch when testing soils, welds, plastering.
- There are **time pressures and interruptions** which vary from moderate to significant depending upon activity. With construction work it is critical to meet timelines and budgets; inspections must be carried out efficiently so as not to interrupt progress and get payments to contractors; tender documents must be prepared quickly to get contracts awarded.

### Complexity

- Tasks typically range from regularly repetitive/well defined to different and unrelated.
- Typically, work is performed with defined and standard work processes, have obvious or limited solutions and/or can be addressed by following procedures or guidelines. The most typical issues to solve are: Determining if work completed by a contractor meet specification, standards and code; resolving a dispute regarding interpretation of contract language; troubleshooting a leak within a water treatment system; and to provide a plan and cost estimate to repair or construct highway infrastructure within a defined budget.
- Occasionally there are challenges or problems that must be defined and practical solutions found as well as challenges with limited opportunity for standardized solutions. Less frequently there is a requirement for creative problem definition and development of complex solutions.
- There are high technical tasks or problems as a result of project supervision and administration of complex construction projects.
- Departmental field manuals, Department Specifications and design standards, National Codes and regulations, OHS regulations, precedents and professional Engineering and other expert staff are available as references or resources.

## RESPONSIBILITY

### Accountability and Decision-Making

- Work tasks are moderately prescribed or controlled.
- There are various decisions that can be made without written or verbal approval such as those concerning project budgets and changes to the scope of work within predetermined limits and approval or rejection of contractor's work.
- Work is performed under general direction. Independent discretion, judgement and latitude are exercised in managing projects, solving technical problems and carrying out activities.

### Impact

- Results are directly felt within the immediate work area, department, within and outside the organization and by clients and the general public.
- Results directly impact equipment, processes, finances, material and human resources, contractors, the general public, and health and safety.
- Consequences of errors could be significant and felt outside the department by clients and the public.

### Development and Leadership of Others

- May provide project supervision to various staff engaged on maintenance, renovation and/or

construction projects and/or serve as project leader or act as a technical advisor/ subject matter expert to departmental staff and external clients.

## **WORKING CONDITIONS**

### **Environmental Working Conditions**

- Work tasks require protective gear and precautions.
- The likelihood of minor injury is moderate; major injury limited.
- Exposed to a variety of undesirable environmental conditions and hazards such as dust, fumes, wet or slippery surfaces, and temperature extremes, isolation, dangerous heights, and heavy machinery when on construction sites and performing inspections.