



CITY OF
PRINCE GEORGE

JOB DESCRIPTION

<u>JOB TITLE:</u>	ENGINEERING TECHNOLOGIST PROGRESSION	<u>SCHEDULE:</u> B
<u>DIVISION:</u>	VARIOUS	<u>PAYGRADE:</u> 19-22
<u>DEPARTMENT:</u>	VARIOUS	(UNDER REVIEW)

JOB SUMMARY:

The Engineering Technologist is responsible for administering the delivery of projects including initiation, detailed design, construction administration, inspection, project management and project close out. The incumbent will coordinate a portfolio encompassing one or more of the following areas: Utilities - Project Delivery, Parks & Solid Waste, Roads and/or Infrastructure.

The work is similar for the Engineering Technologist 1 and Engineering Technologist 2 but as incumbents transition to the higher classification, the work becomes increasingly complex and there is a heightened expectation in regards to working independently, communication skills, prioritizing workload, taking on additional responsibilities, project management of larger and more complex projects, showing leadership and increased quality of work. Performs related duties.

MAJOR RESPONSIBILITIES:

Under the general direction of the Supervisor or Manager:

Completes design and technical activities such as:

- delivering all aspects of municipal infrastructure projects from concept through post-construction documentation;
- identifying and resolving issues such as property acquisition, conflicts with other infrastructure, and topographical, geotechnical, and environmental constraints;
- conducting, assisting with, or ordering surveys, field investigations and inspections, and other data collection;
- performing analysis such as life cycle costing, risk assessments, cost-benefit analysis;
- using modelling software to analyze capacity and identify necessary upgrades of City infrastructure;
- developing both planning-level and detailed design-level cost estimates for engineering projects, and assisting in the preparation of the City's Capital Expenditure Program and related budgets;
- assembling and undertaking analyses of data from infrastructure management systems to support design and project decisions;
- assessing, monitoring and updating the City's Infrastructure Design Guidelines and related bylaws for infrastructure standards and specifications as required;
- assisting in the preparation of technical reports and studies and assisting with review of engineering designs, reports, and specifications; and
- providing technical support, advice and supervision to contractors and staff as required.

Manages projects by:

- developing and obtaining approvals for the project charter, scope statement, deliverables, project plans, schedules, risk management plans and budgets;
- utilizing project management expertise to coordinate and support projects including strategic plans, asset management lifecycle activities and long term capital improvement plans;
- monitoring risk and implementing mitigation strategies, as required;
- preparing, reviewing and writing a variety of reports and documents;
- assessing and rating proposals/tenders received, and recommending awards;
- ensuring contract and project documentation is completed and filed in accordance with City practices;
- recommending methods of project construction that will optimize services with costs based on knowledge of current technology and practices;
- identifying, applying for, and securing the necessary permits from other governments and agencies in a timely fashion to successfully deliver assigned projects, and ensuring any conditions required to satisfy the terms of the permit(s) are in place;
- planning for and acquiring project resources while adhering to project schedule and budget;
- preparing and issuing work orders;
- facilitating discussions with various stakeholders to resolve any issues which may arise;
- overseeing the project budget, setting up and maintaining job costing, reviewing, approving and monitoring invoices, progress claims, contracts, estimates with consultants or contractors;
- liaising with stakeholders and providing budget and status updates;
- assessing contractor and consultant performance, addressing issues as they arise and enforcing terms of contracts;
- ensuring that work is performed in compliance with WorkSafe regulations and the City's Health and Safety policies and procedures;
- collaborating with internal corporate services, where required, to facilitate the implementation, transition, training, sustainment and communication plans; and
- performing site inspections to ensure quality control and assurance.

Undertakes administrative and other related duties including:

- providing task assignment/prioritization, training, technical guidance, and performance monitoring to drafting staff assigned to assist in the execution of the above duties;
- developing and delivering presentations to various audiences, as required;
- identifying and working to develop process and procedural improvements to support work plan priorities
- building internal awareness and lead or participate in cross-functional teams to achieve work plan objectives;
- assisting with review of referrals for proposed new development, and identifying off-site works required to mitigate the impact(s) of that development;
- representing the division's function to other municipal employees, external agencies, utility companies, consultants, contractors, committees, the media, developers, and members of the general public, and participating on various committees;
- maintaining and assisting in the development of the municipal infrastructure inventory and maintenance of the inventory based asset data management system; and
- performing related duties and working on special projects, as required.

ENGINEERING TECHNOLOGIST 1 (Paygrade 19 UNDER REVIEW)

At this level, the incumbent provides technical expertise to assist the Project Manager and acts as a project inspector and /or project manager for smaller/less complex engineering, operational and capital projects as required. Independent judgment and action are exercised in the technical aspects of the work, and errors in the work could have serious impact on project delivery.

ENGINEERING TECHNOLOGIST 2 (Paygrade 22 UNDER REVIEW)

At this level, the incumbent provides an advanced professional level involving a high level of initiative and independent judgment. The focus of the position is on all stages of project management from concept to completion. The incumbent works on projects of all sizes and levels of complexity. The incumbent completes modeling of infrastructure condition ratings and carries out life cycle costing to develop multi-year capital programs. The incumbent must be able to deal with stressful situations, tight deadlines and a considerable workload.

This position works with a high level of self-direction while leading a project team comprised of internal staff/stakeholders, technical consultants, contractors, construction workers and other agencies including provincial and/or Federal government representatives. There is a high level of independence required at this level as there are few internal staff to refer problems and tasks to. The incumbent acts as a mentor to junior staff for technical issues. Strong problem solving skills are required to manage and support the City's Capital, Infrastructure and Engineering Projects. Careful analysis, timely communications and detailed planning and implementation is required. The work is highly complex and errors in the work could have a serious impact on project delivery.

QUALIFICATIONS:

ENGINEERING TECHNOLOGIST 1:

Education: Completion of a two-year post-secondary diploma in Civil Engineering Technology from an accredited post-secondary institution recognized in the BC Transfer Guide. Certification as an AScT within the Province of British Columbia is required. Preference will be given to candidates with project management courses.

ENGINEERING TECHNOLOGIST 2:

Education: Completion of a two-year post-secondary diploma in Civil Engineering Technology from an accredited post-secondary institution recognized in the BC Transfer Guide. Certification as an AScT within the Province of British Columbia is required. Certificate of completion as identified by the Project Management Institute (PMI) is preferred. Preference will be given to candidates with a Certificate in Project management (CPM) or a Professional Project Management Designation (PMP) or equivalent recognized project management designation.

Knowledge & Skills: Considerable knowledge of survey requirements for design and construction activities; municipal infrastructure design; inspections and testing for municipal construction projects; budget tracking; cost estimating; project scheduling, procurement process, and contract law. Strong knowledge of municipal engineering operations. Strong project management skills. Ability to prepare, read and interpret plans, specifications, contract documents and ability to interpret and provide recommendations on professional reports, designs, City bylaws, and technical specifications. Demonstrated ability in the development, monitoring and/or implementation of master plans and strategies. Demonstrated ability with data

collection, data entry and analysis. Strong influencing and negotiation skills and the ability to build trust. Demonstrated knowledge and proficiency with computer software related to the work. Strong knowledge of science and mathematics as applied to design and engineering. Ability to obtain accurate and complete information from staff to identify their needs and develop responses and solutions. Ability to work effectively on a self-directed basis in a changing environment and make timely and technically-sound decisions under pressure. Strong time management, organization, prioritization skills to effectively handle multiple tasks and projects and meet deadlines under a demanding workload. Demonstrated problem solving skills. Strong attention to detail. Ability to communicate openly, effectively, and respectfully, both orally and in writing. Ability to maintain effective and positive working relationships with others to create a proactive and motivated team environment. Demonstrated commitment to quality service with a strong customer orientation. Knowledge of related legislation and regulations. Ability to learn and remain current. Knowledge of WorkSafe BC regulations, occupational hazards and safe work procedures as it relates to the position, including but not limited to: bullying and harassment, working alone and other significant hazards.

PORTFOLIOS:

UTILITIES / PROJECT DELIVERY

The incumbent is responsible for the delivery of capital projects and technical support for operational aspects related to utilities (District Energy system, water, sanitary and storm sewer). Technical support may include computer modelling (water/sewer/storm), pressure testing, flow monitoring/testing, product research and selection, development investigations and inspections, CCTV review, asset management documentation, CMMS maintenance and technical support for operations staff and other duties as assigned.

ENGINEERING TECHNOLOGIST 1:

Experience: A minimum of five (5) years of progressive experience with survey, design and management of municipal construction projects, preferably in the municipal or municipal consulting field.

ENGINEERING TECHNOLOGIST 2:

Experience: A minimum of seven (7) years of progressive experience with survey, design and management of municipal construction projects, preferably in the municipal or municipal consulting field.

INFRASTRUCTURE PLANNING & ENGINEERING

The incumbent is responsible for engineering design, analysis, advice, and technical support in the management and administration of strategic infrastructure projects that inform capital and operating projects for municipal infrastructure and operational needs. The incumbent leads, coordinates and supports the development, delivery, monitoring, and administration of infrastructure related plans, bylaws, policies, procedures and capital planning program. This incumbent is exposed to a wide range of asset categories and functional areas in order to strategically align a number of capital and operating initiatives and projects. The incumbent is exposed to all stages of projects from conception to construction including investment planning, concept development, feasibility and preliminary design.

ENGINEERING TECHNOLOGIST 1:

Education:

Experience: A minimum of five (5) years of progressive experience with engineering and design or operations and design, in addition to project management in the municipal or municipal consulting field.

ENGINEERING TECHNOLOGIST 2:

Experience: A minimum of seven (7) years of progressive experience with engineering and design or operations and design, in addition to project management in the municipal or municipal consulting field.

ROADS

The incumbent is responsible for transportation project designs, developing and coordinating projects and budgets, administering programs, liaising with construction crews, processing/approving and inspection of various permits, writing reports/correspondence, and other related duties.

ENGINEERING TECHNOLOGIST 1:

Experience: A minimum of five (5) years of progressive experience with survey, design and management of road construction projects.

ENGINEERING TECHNOLOGIST 2:

Experience: A minimum of seven (7) years of progressive experience with survey, design and management of road construction projects.

PARKS & SOLID WASTE

The incumbent is responsible for capital/park project designs, developing and coordinating projects and budgets, administering programs, liaising with and/or supervising consultants and construction crews (City or contractor), coordinating/processing subdivision referrals on behalf of the Parks & Solid Waste Division, writing studies/reports/correspondence, supervising others involved in the collection of data and other related duties. The incumbent will be responsible for assisting in the overall operation and maintenance of parks, cemetery, and facilities and providing engineering services on City infrastructure.

ENGINEERING TECHNOLOGIST 1:

Experience: A minimum of five (5) years of experience with design and administration of parks and cemetery projects, preferably in the municipal or municipal consulting field. Previous experience in landscaping or landscape architecture would be considered an asset.

ENGINEERING TECHNOLOGIST 2:

Experience: A minimum of seven (7) years of experience with design and administration of parks and cemetery projects, preferably in the municipal or municipal consulting field. Previous experience in landscaping or landscape architecture would be considered an asset

Valid BC Driver's license: Yes. BC Driver's License, full privilege Class 5.
Vehicle Usage: City owned vehicles
Police Information Check: No.
Baseline Hearing Test: Yes.

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