



JOB DESCRIPTION

TITLE: ENGINEERING PROJECTS TECHNOLOGIST

DEPARTMENT: Engineering

LEVEL: 12

Position Last Evaluated: Dec 2014
Job Desc. Last Updated: Mar 2018

JOB SUMMARY

Under the general direction of the Manager, Engineering Projects, the incumbent carries out the engineering design for streets, traffic signals, street lighting, road drainage, sanitary sewer works, storm sewer works, water works, and other civil works. The incumbent also prepares contract drawings for engineering projects, directs and monitors the work of other staff and consultants, compiles and reviews cost estimates, terms of reference, proposals, designs, studies, and specifications, and provides assistance in the development of procedures and policies.

TYPICAL DUTIES AND RESPONSIBILITIES

1. Prepares preliminary and detailed computer aided designs and drawings, quantity calculations, cost estimates, and specifications for road works, storm sewer works, sanitary sewer works, water works, and other civil works giving thorough consideration in the design to construction, operation, and maintenance costs. Designs and construction are guided by the City of Nanaimo Standards and Specifications, good engineering practice, and budget considerations. All duties necessary to bring a project to a construction-ready state are performed.
2. Distributes preliminary designs to applicable staff to review and provide comment. Receives and evaluates comments and proceeds as deemed appropriate.

TYPICAL DUTIES AND RESPONSIBILITIES

3. Prepares terms of reference for projects, issues calls for expressions of interest and calls for proposals, makes recommendations on the hiring of consultants, monitors consultants' progress and provides direction to consultants to ensure goals and objectives are accomplished. Reviews consultants' progress payment requests and makes recommendations on payment of invoices.
4. Prepares reports to the Manager, Engineering Projects, senior management, Council, and others on engineering related issues.
5. Provides engineering input (on behalf of the City's interests) on engineering standards and the projects of other jurisdictions and the public.
6. Clarifies engineering project goals and objectives, scope, budget, site details, environmental concerns, construction concerns, and operational concerns, and recommends a course of action and design to address the issues in the most efficient, cost-effective way.
7. Organizes and directs field activities to support project design including but not limited to utility locates, survey, geotechnical investigations, soil sampling, site investigation, and other tasks as required.
8. Performs project management duties to ensure the design and construction of projects meets the goals and objectives.
9. Determines the priorities for design work, integrates the work with other priorities, establishes deadlines, prepares schedules for the completion of the work, and monitors the design work to ensure work is completed efficiently and that deadlines are met.
10. Meets with the public, consultants, utility companies, and other government agencies to determine and address their concerns and requirements related to design work. Participates in formal public consultation where required.
11. Coordinates and organizes the design work on larger projects with the work of other engineering staff to ensure that related design work is completed concurrently.
12. Co-ordinates and organizes the work of drafting and survey staff assigned to assist the incumbent on projects, including the allocation of work, monitoring of work and work load, and participates in the annual performance evaluation and makes specific recommendations on training and development.
13. Performs other duties as required.

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES

Thorough knowledge of engineering practices, methods, standards, techniques, and equipment specifically related to civil engineering design, layout, and construction of roads, water systems, sanitary sewer systems, and storm sewer systems.

Thorough knowledge of municipal engineering design and drafting practices.

Thorough knowledge of estimating project costs for municipal construction.

Working knowledge of the methods, materials, and equipment used in the layout and construction of municipal works.

Knowledge of procurement of engineering services and the ability to prepare Request for Proposals and Request for Statements of Qualifications.

Knowledge of civil engineering surveying, design, construction, operation, and maintenance terminology, methods, techniques, practices, and equipment.

Excellent organizational skills and the ability to self-organize work and priorities and to work independently with only general supervision.

Expert knowledge in AutoCAD and Civil 3D.

Proficient computer skills in spreadsheet programs (such as Excel) and word processing programs (such as Word).

Ability to make calculations rapidly and accurately.

Ability to read, interpret, and prepare municipal engineering plans, specifications, contract documents, and related material.

Ability to research, collect, manage, analyse, and synthesize technical data and information.

Ability to interact effectively with people in a team environment.

Ability to seek input from other staff on designs. Ability to clarify such comments and respond to input from other staff objectively.

Ability to communicate with tact and discretion when dealing with or settling requests, complaints or clarifying information to customers.

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES cont.

Ability to effectively chair meetings and organize groups of multidisciplinary team members to accomplish project objectives.

Ability to prepare and maintain concise records, reports, and correspondence.

MINIMUM TRAINING AND EXPERIENCE REQUIRED

A diploma in Civil Engineering Technology from an accredited Technical Institute, plus specialized courses related to engineering design, software, and project management.

A minimum of 5 years' related experience.

Or an equivalent combination of education and experience.

Possession of a valid Class 5 BC Driver's Licence.

Membership in, or eligible for membership in, the Applied Science Technologists and Technicians of British Columbia as an Applied Science Technologist.

GENERAL STANDARDS

All employees shall take reasonable care to protect their health and safety, and the health and safety of other persons by becoming familiar with the Occupational Health & Safety (OH&S) Program, following established safe work procedures, using protective equipment, and asking for training if unfamiliar with work requested to perform.

Contributes in maintaining a respectful, safe, and supportive work environment that embraces diversity and where everyone is treated with courtesy, dignity, and fairness.

Adheres to City policies and objectives.