

## **CITY OF NANAIMO**

### **BUSINESS CASE - Engineering Projects Section: Project Engineer**

#### **CURRENT OVERVIEW**

The Engineering Projects Section is responsible for the delivery of capital projects within the Engineering Department. A dedicated project manager oversees all projects and projects are delivered in several different ways, with both internal and external engineers, inspectors, contractors and contract administrators.

Engineering consultants complete the majority of the engineering design work, with a few small projects designed by city staff. External contractors construct the majority of projects, some of the contracts are administered and inspected by the consulting engineer and staff complete some. The City also has a small construction crew, which constructs a portion of the capital projects.

#### **BUSINESS ISSUE**

In 2017, the Manager of Construction retired, and the group was restructured to bring the construction and design groups together into one section. The plan was to convert the Manager of Construction position to a Project Manager; however, the position was instead converted to a Director of Engineering and Public Works, thereby reducing the available resources within the Engineering Department.

Departmental workloads exceed capacity and in the spring of 2018, a contract project manager was retained to supplement current staff resources. Since 2018, the workload has remained steady and it is expected that the workload will continue to exceed the department's resources as:

- The City is growing, resulting in the expansion of the City's roads, water and sewer infrastructure. The asset management plan shows substantial renewal of infrastructure, with increases every year.
- The City's commitment to efficient and well thought out projects, has led to projects, which are more complex to design and manage. The demand for consultation and communication on projects from the public, and City Council, is increasing. Effective public consultation, and communication with the public, can be complex, and requires a significant amount of time.
- The City's commitment to best practices in project management with the Project Management Framework requires additional work to be completed by the Project Manager.

#### **EXPECTED OUTCOME**

The addition of another project engineer is anticipated to:

- Allow all City projects to be managed by a City staff member. City staff have a greater understanding of the City's processes and infrastructure and in-house project management increases the City's pool of resources and knowledge.
- Eliminate the cost of the contractor consultant.
- Allow for a better distribution of management responsibilities within the section.

### **Option #1 –Additional Project Engineer Position**

Create a second full-time Project Engineer position, reporting to Manager of Engineering Projects to replace the contract project manager.

#### Benefits:

- The projects in the financial plan would be able to be managed with in house staff project managers.
- An additional engineer will share, with the other managers in the group, the management of design and inspection staff, and design for projects undertaken by city staff.
- City staff have a greater understanding of the City's processes and infrastructure, to facilitate more efficient decision-making and design. They have a better understanding of community expectations, and are more responsive to the community.
- Engineering staff can build long-term relationships with operations and construction staff, and other departments, to better understand their issues and challenges. It increases the City's pool of resources and body of knowledge.
- Having staff project managers will retain knowledge of the infrastructure projects within the organization.
- Lower cost - the effective "in house" hourly rate is \$88. The City is currently paying \$132.50 per hour for a contracted project manager.

#### Weaknesses:

- Permanent increase to the operating budget of the Engineering Projects section. However, it should be noted that the contracted project manager is being funded by increasing capital costs of projects.

#### Financial Analysis:

- The position is anticipated to be a professional engineer, at a management level 6, with an annual salary of \$117,675 plus benefits for an estimated total of \$145,920.
- Additional annual cost are anticipated at \$4,570 for membership, professional development, smart phone and computer charges.
- One-time cost upon the creation of the position is projected at \$7,300. This includes the purchase of phones (smart and desk), workstation, desktop computer and laptop.
- The contracted project manager is charged directly to the projects they manage. Between March 1, 2018 and April 30, 2020, \$495,000 has been spent on external project management. A staff position is anticipated to result in an overall savings to the City versus an external contractor.
- The resulting net cost savings is estimated at \$27,000 in year one and \$34,000 for the following years.

## **Option #2- Status Quo**

### Benefits:

- Flexibility of contract hours.

### Weaknesses:

- Project budgets have been adjusted upwards by 10% to allow a contract project manager to be charged to the project. Typically, these adjustments are an addition of 10% of the construction value to the project.
- Contracts are generally short-term assignments; significant time is expended during on-boarding when a seconded project manager is hired and during project handovers when seconded project managers leave. The current contract expires at the end of 2020, continuing with the secondment would require posting a request for proposal and could result in a different firm.
- Contracted staff are not able to build long-term relationships with the operations and construction staff, and other departments, to effectively understand their issues and challenges.
- Contracted staff have the potential to negatively affect relationships with the City's partners.
- Flexibility and the ability to respond to emergencies would be reduced.
- That institutional knowledge built up during the process of delivering the project is lost when the contracted staff leaves.

### Financial Analysis:

- The cost of the Contract Project Manager is \$132.50 per hour, 8 hours a day, which is equivalent to \$1,060/ day. This is funded out of project budgets instead of the department's operating budget.

## **RECOMMENDATION**

Option #1 is recommended.