BUDGET COMMITTEE - MARCH 9, 2009

NEW CAPITAL PROJECT – LOADER MOUNTED SNOW BLOWERS

Recommendation

The Commissioner of Engineering and Public Works, in consultation with the Director of Reserves and Investments, and the Director of Budgeting and Financial Planning, recommends that:

1. The draft 2009 Capital Budget be amended to include an expenditure of $380,000 for the purchase of two loader mounted diesel powered snow blowers; and,

2. $342,00 to come from City-Wide Development Charges, with the remaining $37,000 to come from the Public Works Winterization Reserve account, and this amount is to be paid back into the account over a 3 year period, starting in 2009, with these funds being generated from reduced contracted expenditures and improved operational efficiencies.

Economic Impact

The cost for each loader mounted snow blower of suitable capacity for Public works is approximately $185,000, with 2 units being requested. Development charges will only cover 90% of the cost. In order to come up with the remaining 10% without impacting taxation, it is recommended that the $37,000 be taken from the Winterization Reserve account when the units are purchased, and these funds be paid back into the fund over a 3 year period, starting in 2009. These funds will come from reduced contracted expenditures, and improved operational efficiencies.

Communications Plan

Once these new units are obtained, staff will prepare an article for inclusion in the winter operations update newsletter.

Purpose

To seek approval to add additional winter maintenance equipment to the 2009 draft capital budget to assist Public Works in improving winter snow removal operations.

Background - Analysis and Options

Vaughan is a growing municipality, with its road network increasing annually. The new urbanism has not only added additional kilometers of road to maintain, but it has resulted in reduced pavement widths and the construction of additional rear laneways. The reduced pavement width means less snow storage space, requiring snow to be removed sooner than on the older, wider, streets. When laneways are built with garages on both sides, other than ploughing the snow against the garage doors, snow removal is the only option to deal with large snow accumulations.

Traditionally, the Public Works Department's snow removal program has been limited to removing the piled up snow from cul-de-sacs, and from rear lanes when snow accumulations reach six inches or more. For the past two years, the City has experienced very heavy snow falls, with total accumulations reaching near record amounts.

The current snow removal program, combined with the large amounts of snow received, has lead to numerous complaints from residents. Issues such as reduced pavement width due to the large snow banks on either side of the secondary roads, and the perceived lack of maintenance in rear laneways are the most common complaints.

Like last year, this winter has been no exception. Due to the amount of accumulated snowfall, the growing road network of the City, and the number of complaints raised about the narrowed pavement width, a much wider-spread snow removal program had to be implemented in February of this year. This revised snow removal program used a combination of front end loaders with buckets and loader mounted snow blowers, as well as numerous tri-axle dump trucks, to remove and haul away snow from various secondary streets and laneways across the City.

Snow removal, using front end loaders with buckets, is somewhat of a slow process. The snow must be scraped up in a pile, and then loaded into the trucks. Depending on the distance to the snow disposal site, a loader can keep 3-5 tri-axle dump trucks working steady.

Snow removal with a loader mounted snow blower is much faster and also results in more payload per truck. A mid-sized snow blower that is mounted on a front end loader is capable of blowing between 1,500 – 1,800 tonnes of snow per hour. When the snow is blown into the back of the truck, it is compacted, resulting in heavier payloads, and therefore more snow is taken in each trip to the snow disposal site. Depending on the distance to the snow disposal site, one such blower can easily keep 10 or more tri-axles working steady.

Cost proposals were recently sought from the City's current winter maintenance contractors to have loader mounted blowers available for the winter period. The proposed daily standby rates to have two rental loaders with snow blowers would result in additional standby costs of approximately $103,500 per winter season. The hourly rental rate for these units runs from $225 per hour, upward.

The life cycle of these large snow blowers is approximately 20 years, depending upon the amount of use they get each year. Based on the need for this equipment to expedite snow removal operations, and comparing the purchase price against the proposed standby and hourly rental rates, it is clear that the purchase option is the most cost effective in the long term. It also provides the Public Works Department with increased flexibility to better manage its snow removal programs.

Capital Project FL-5104-08 has been previously approved for the purchase of 2 front end loaders for the Public Works Department. When preparing the specifications for these specialized pieces of equipment, Public Works will specify that these new units come with quick attach couplers to accommodate the new snow blowers and other attachments. Should Council approve the purchase of these snow blowers, Public Works will also be specifying the blowers have wireless remote controls to ensure the units are transferable from loader to loader, without the need for hard-wiring the controls in place.

Given that the City's Public Works Department does not currently own a loader mounted snow blower, or any snow blower capable of loading the large dump trucks, it is recommended that the 2009 draft capital budget be amended to include two loader mounted snow blowers, at and estimated cost of $185,000 each.

At a recent Environment Committee meeting, Dr. Quentin Chiotti of Pollution Probe indicated that the climate is changing, and we are to expect the new summer and winter weather patterns to become more the "norm'. As such, it is expected that larger scale snow removal operations will occur more often in the coming years, and the addition of two loader mounted snow blowers will assist the Public Works Department in managing these large snow accumulations.

Relationship to Vaughan Vision 2020

This recommendation ties into the Vaughan Vision Goals and Objectives:

Goal: "Service Excellence"
Objective: "Pursue Excellence in Service Delivery."

Goal: "Management Excellence"
Objective: "Plan and Manage Growth & Economic Vitality"
Goal: "Management Excellence"
Objective: "Enhance Productivity, Cost Effectiveness and Innovation"

Regional Implications

N/A

Conclusion

In order to improve the future efficiency of the Public Works Department's snow removal process, it is recommended that the 2009 draft capital budget be amended to include two loader mounted snow blowers at an estimated cost of $185,000 each.

Attachments

N/A

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Respectfully submitted,

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