

BUDGET COMMITTEE – MAY 26, 2003

ELECTRONIC SPEED SIGNS

Recommendation

The Commissioner of Engineering and Public Works recommends:

That this report be received for information.

Purpose

To report on the feasibility of purchasing additional electronic speed signs.

Background - Analysis and Options

At its meeting of November 25, 2002, Council approved a recommendation that staff be directed to look at the feasibility of purchasing additional electronic speed signs.

There are currently two electronic speed signs in the City. They were purchased in 2001 pursuant to Council direction at its meeting of December 18, 2000. Each sign is equipped with a radar unit that continuously monitors the speed of oncoming traffic, and flashes the speed reading on an LED message board. The signs are housed in portable trailers for installation at the side of the road.

Staffing Implications for Additional Signs

The two existing signs are rotated as a pair throughout most major streets in the City between the months of April and December. Current practice is for Transportation Section staff to install the signs on a given street at the beginning of the week, and remove the signs at the end of the week and store them at the JOC over the weekend to recharge the batteries. Both signs are installed on the same street, but facing in opposite directions, to monitor oncoming traffic in both directions and to save on staff time. The procedure takes approximately 3 hours for two staff members twice a week, or the equivalent of about 12 hours of staff time per week. During the summer months the Transportation Technician and a summer student install and remove the signs; during the other five months they are in use the Transportation Technician and a Transportation Analyst install and remove the signs.

A minimum time of 24 hours is required to recharge the batteries. However, a two-day recharge time has shown to provide better battery performance over the following week, especially as the weather gets colder.

If two more signs are purchased and used in the same manner as the existing signs, then an equivalent of 24 hours of staff time will be required per week to install and remove all four signs. If eight signs are purchased to allow for two signs per ward, then an equivalent of 60 hours of staff time will be required per week for all ten signs – enough work for two new staff positions for nine months of the year.

The Engineering and Public Works Departments do not have the staff resources to install and remove additional electronic speed signs without impacting the level of service provided in dealing with other matters. Should Council wish to increase the existing program by adding signs, to maintain current levels of service additional staff would be required.

Given the driving and set up time required, a maximum of two to three locations (four to six signs) could be installed in one day. Two staff persons (one technician and one labourer) would be required to perform this work. These persons would be required to remove and return the signs

to storage for recharging after a maximum of five days in place. We expect it would be difficult to hire part time staff on the basis of them working only two days per week. Should a program utilizing a total of ten signs be implemented, two staff could be kept busy for five days per week installing and removing signs on a rotating basis. This activity would be for only nine months of the year.

Storage Requirements for Additional Signs

The two existing signs are stored at the JOC on weekends and during the months of January, February and March. The signs cannot be used during periods of colder weather which causes condensation in the radar units and the batteries to lose their charge. If additional signs are purchased then space for them will have to be provided. There is limited indoor storage at the JOC, especially during the winter months when snow equipment is kept indoors when not in use. There is limited indoor space at the Civic Centre and MNR properties as well.

Outdoor storage during the winter months is not considered to be an option since, even with the batteries removed for indoor storage, radar units stored outdoors would have sensitive electronic components subject to damage from condensation. Condensation and temperature changes tend to shorten the life of such units.

Costs of Additional Signs

In 2001 the electronic speed signs cost \$11,000 each complete with trailers. It is likely new signs would cost about \$15,000 each. To use the previous examples, should two more signs be purchased the total cost would be about \$30,000, and should eight more signs be purchased the total cost would be about \$120,000.

Elements of an Effective Speed Monitoring Program

For additional signs to be used most effectively, it is suggested they form part of a comprehensive City-wide speed monitoring program. This could mean that in addition to dedicated staff persons for installing and removing the signs, there be at least one dedicated staff person that develops schedules for where the signs would be located, records traffic speeds before, during and after the signs are installed, liaises with York Regional Police and perhaps local media to advertise use of the signs, and develops a public education program to raise awareness of the dangers of speeding.

Conclusion

Should Council wish to have additional electronic speed signs purchased then new staff would be required to install and remove the signs. A suitable location will need to be found to recharge the batteries and store the signs in the off season. A source of funding will need to be identified to purchase the signs. Should Council wish to pursue the matter further, direction would be required on the extent of the desired program. Staff would develop a report addressing the associated staffing, equipment and space needs for consideration during the 2004 budget deliberations.

Attachments

N/A

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Respectfully submitted,

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Commissioner of Engineering and Public Works