



CITY OF RICHMOND

REPORT TO COMMITTEE

TO: Public Works and Transportation Committee **DATE:** June 23, 2000
FROM: Gordon Chan, P. Eng.
Manager, Transportation **FILE:** 6450-17-02
RE: ENHANCED AUDIBLE TRAFFIC SIGNALS – PROPOSED IMPLEMENTATION PROGRAM

STAFF RECOMMENDATION

1. That the enhancement of the City's current audible traffic signals with a "pole locator" feature be introduced on a trial basis as part of the City's regular Traffic Signal Maintenance Program.
2. That staff continues to consult the Richmond Committee on Disability and the visually impaired community to monitor the performance and effectiveness of the enhanced audible signals and to identify further modifications if necessary.

Gordon Chan, P. Eng.
Manager, Transportation

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STAFF REPORT

ORIGIN

At the June 23, 1999 Public Works and Transportation Committee meeting, a delegation from the Richmond Committee on Disability (RCD) addressed the Committee on the use of “audible signal indicators” as a traffic safety tool for both the legally blind and the hearing impaired community. The delegation presented a device manufactured by “Polara” which has multiple functions such as build-in sign, pushbutton, speaker, and sign vibration. The delegation proposed a pilot project using this device instead of the current devices used by the City. At the same meeting, staff were directed by Council to report back on:

- a) The feasibility of undertaking a pilot project using “audible signal indicators”;
- b) The intersection at which the project would be undertaken; and
- c) The cost implications of such a project.

Over the past year, staff have been working with representatives of the RCD and the manufacturer of the City’s current audible signal devices on the proposed pilot project. These joint efforts have involved the development of additional features that could be introduced to enhance the existing audible signals to meet the needs of the visually impaired community. This staff report presents a proposed pilot project of audible traffic signals.

ANALYSIS

1. Comparing the City’s Audible Signal Device and the “Polara” Design

Since 1990, the City of Richmond has put audible traffic signals in place at seven intersections to assist the visually impaired community in crossing major intersections safely. Three more installations will be completed in 2000. There are three main components that make up an audible signal, i.e. push button/sign, walk and don’t walk sounds or voice synthesizer, and pole locator. The first two components are part of the City’s current audible signal standards. The visually impaired community would like to see the third feature (pole locator) introduced to assist in locating the pole where the button is attached. The “Polara” equipment suggested by the RCD provides this “pole locator” function by means of a 24-hour sign vibration feature. The following is a comparison of the City’s current audible signal standards and the “Polara” equipment suggested by the RCD.

City’s Current Audible Signal Device - Richmond’s standard for pushbuttons and signs are superior to the equipment used in most other jurisdictions. The existing pushbutton signs are twice as large as the national standard and have a yellow background (yellow being the most visible colour of the visually impaired). Public feedback on the City’s current device has been very favourable. The device used by Richmond is designed and manufactured locally. It is also the most common device used in North America.

“Polara” Device – The Polara device has basically the same features as the new version of the City’s audible device with the exception that it is available with a vibrating sign feature. To utilize this device, the existing sign, button, and audible device must be removed as the City’s device is not compatible with the Polara “all in one” design. The “Polara” design also requires the placement of all of the signal components within reach on the pole. The location of the device is of concern in terms of exposure to vandalism and the elements.

2. Pilot Project of Enhanced Audible Signals

Based on industry experience and standards, the approach of enhancing the City's current inventory of audible signals instead of dismantling the existing signals and introducing the "Polara" design is proposed. This proposal is based on factors including: favourable feedback from users, spare parts requirements, conformance to established standards and practices, implications on capital/operation/maintenance costs, vandalism concerns, etc.

Staff recommend that the existing audible signal units at the following locations in Richmond be retrofitted with the pole locator and push button confirmation features on a trial basis:

- No. 2 Road (Blundell Shopping Centre driveway) pedestrian signal (2 units);
- No. 2 Road and Blundell Road (all directions - 8 units); and
- No. 3 Road and Westminster Highway (all directions – 8 units).

These locations have been chosen because installation was previously planned or maintenance was required. In staff's assessment, these three intersections will allow a high level of public feedback on the new features being tested.

3. Further Consultation

Staff will continue to work with visually impaired community representatives and the RCD to monitor the performance and effectiveness of the modified audible signals and identify further enhancements if necessary.

FINANCIAL IMPACT

No additional cost to the City. The pilot project will be undertaken as part of the regular Traffic Signal Maintenance Program.

CONCLUSION

Staff are seeking Council's approval of a pilot project for the installation of audible signals with the additional features of pole locators and push button confirmation sound at three locations in Richmond. The recommendation of retro-fitting the City's current device as opposed to adopting a new standard is based on reasons of cost, user acceptance, and consistency with industry standards and practices. Staff will continue to work with the visually impaired community and the RCD to monitor the effectiveness of the enhanced audible signals and to identify further modifications as required.

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Traffic Signal Systems Technologist

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