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Item No. 2

Halifax Regional Council
October 2, 2007

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY:

A handwritten signature in black ink, appearing to read "Ken Reashor".

Ken Reashor, P.Eng., Traffic Authority

DATE: September 18, 2007

SUBJECT: **Traffic Signals at Bedford Highway and Mount Saint Vincent University**

INFORMATION REPORT

ORIGIN

Item 13.4 raised at the August 7, 2007 meeting of Halifax Regional Council.

MOVED by Councillor Hum, seconded by Councillor Walker, that Regional Council request a staff report for the September 4, 2007 Council meeting, to consider the installation of half lights at the crosswalk at the Bedford Highway and Mount Saint Vincent University, to include discussion on alternative options, consideration of future development of the Mother House lands, traffic signalization at Seton Road, exploration of Mount Saint Vincent University paying any or all costs toward any traffic signalization, and consideration of a review that was undertaken last year on this matter. MOTION PUT AND PASSED.

BACKGROUND

The main pedestrian entrance to Mount Saint Vincent University is located at the intersection of the private road "College Road" and Bedford Highway. To assist pedestrians crossing Bedford Highway mostly going to and from a Metro Transit bus stop at this location is a marked crosswalk supplemented with pedestrian actuated flashing lights (known as an RA-5 crosswalk). The administration and students of Mount Saint Vincent University have requested a higher level of control at this location.

DISCUSSION

This Information Report is divided into sections corresponding to the various items requested in Council's motion.

1. ...to consider installation of half lights [half-signals] at the crosswalk at the Bedford Highway and Mount Saint Vincent University.

There are two forms of pedestrian-activated signals that are used in HRM. There are the overhead pedestrian-actuated flashing amber lights similar to those that are now installed at Mount Saint Vincent University and the pedestrian activated half signals like those at the intersection of Broadholme Lane, Castle Hill Drive and Kearney Lake Road. Both the overhead flashers and half signals are supplemental devices that are used at warranted crosswalk locations on wide, multi lane streets where it is more difficult for a pedestrian to make eye contact with drivers or to signal his/her intention to cross by raising a hand. Neither are legally required at any marked crosswalk and are basically supplementary traffic control devices designed for more complex locations where a driver's attention may be more difficult to obtain than with a simple marked crosswalk.

Prior to considering either device the locations must first meet the requirement for a marked crosswalk. The Traffic Authority has adopted the Transportation Association of Canada (TAC) warrants for marked crosswalk installations. There only has to be sufficient traffic and pedestrian volumes to justify a crosswalk. The Mount Saint Vincent University location has more than sufficient pedestrian volume to satisfy the criteria.

There is not a warrant point rating system for pedestrian half signals similar to the warrant used for full traffic signals. When it is necessary to install a warranted crosswalk or there is an existing one which is within ± 200 metres of other traffic signals we consider half signals similar to those at Broadholme Lane, Castle Hill Drive and Kearney Lake Road. This allows us the opportunity to cycle the half signals in sequence with the adjacent full signals to ensure optimum traffic progression along the corridor and still provide adequate pedestrian crossing opportunities. Any of the locations where we have half signals are adjacent to or between other nearby traffic signals. The pedestrian-actuated flashing amber lights at Mount Saint Vincent are about a half kilometre from the nearest traffic signal at Flamingo Drive. Pedestrian half signals are not appropriate for this location because the distance from the nearest traffic signal does not enable progression to be maintained.

2. ... to include discussion on alternative options:

There seems to be very few alternatives to assist pedestrians across the Bedford Highway here. A pedestrian overpass or underpass would not likely be used very much and would be expensive.

Full traffic signals could be installed if the warrants were satisfied for the location. Analysis done in previous years showed that for motor vehicle traffic alone the warrant was far from being met. Pedestrian traffic is being handled well by the crosswalk and overhead pedestrian flashers. A traffic signal is not automatically the best choice for a location even if a warrant is met because while a traffic signal can improve safety at an intersection in some ways, a signal can also increase rear-end collisions. Traffic signals will also increase delay and emissions for main street vehicles and vehicle occupants. The TAC signal warrant procedure manual includes a recommendation that appropriate alternate forms of traffic control or other design and operational changes be evaluated and applied before traffic signals are installed. Traffic signals at College Road could potentially increase shortcutting through Skylark Street, Melody Drive and the church property to College Road.

HRM evaluates many locations for the possible installation of traffic signals and each year, depending on availability of funding, a few intersections with the highest need (usually those with the highest warrant points) are converted to signals. Locations which are at private driveways are not constructed at HRM's cost.

3. ... to include consideration of future development of the Motherhouse lands:

Future development of the Motherhouse lands is expected to have only minor consequences for traffic on the driveway at this location. The Motherhouse lands would be accessed by Seton Road and by a new roadway connecting to Lacewood Drive.

4. ... traffic signalization of Seton Road:

When at least a portion of the Motherhouse lands are redeveloped it is likely that traffic signals will be warranted at the Seton Road at Bedford Highway intersection. The cost of the signals would likely be paid for by the developer(s) at the time. Seton Road is significantly more than 200 metres from College Road so half-signals at College would still not be appropriate. The effect on traffic operations at College Road of a future signal at Bedford Highway and Seton Road would be evaluated sometime after the signal was in place.

5. ... exploration of Mount Saint Vincent University paying any or all costs toward any traffic signalization:

If traffic signals were to be approved for this location, HRM would require the private land owner of the driveway to pay the full cost of signalization. HRM would have to assume the ongoing maintenance costs of the signal in perpetuity. Traffic signals will only be allowed where warranted.

6. ... consideration of a review that was undertaken last year on this matter:

The review done last year recommended against changing the RA-5 crosswalk to any higher level of control because the location was determined to be functioning properly, with good visibility and few problems. Half signals were not appropriate because of the distant spacing to any adjacent traffic signals. For motor vehicle traffic alone the warrant was far from being met. Pedestrian traffic is being handled well by the crosswalk and overhead pedestrian flashers.

As mentioned previously, when alternate controls are in place traffic signals are not recommended first choice. At this location, the in-place RA-5 crosswalk is working well notwithstanding some pedestrians' complaints. The Transportation Association of Canada signal warrant procedure does not include a method for evaluating an RA-5 location against potential signalization beyond the recommendation to consider other methods first. HRM has other locations where the signal warrant is met, including locations with considerably more traffic than the Mount Saint Vincent location, yet where traffic signals are not needed because the RA-5 works well.

Installation of a traffic signal would not necessarily prevent all auto-pedestrian collisions. In addition, traffic signals could potentially increase shortcutting through Skylark Street, Melody Drive and the church property to College Road.

Therefore, the analysis from last year about this location is confirmed and installation of a traffic signal, even if the university would pay, will not be approved by the Traffic Authority unless warranted.

BUDGET IMPLICATIONS

There are no capital budget implications.

FINANCIAL MANAGEMENT POLICIES / BUSINESS PLAN

This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, Capital and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Capital and Operating reserves, as well as any relevant legislation.

A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/cagenda.html> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

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