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Halifax Regional Council
July 3, 2007

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY: 

Ken Reashor, P.Eng., Traffic Authority

DATE: June 15, 2007

SUBJECT: Councillor Murphy - North Barrington Street

INFORMATION REPORT

ORIGIN

Item 11.4 raised at the April 3, 2007 meeting of the Halifax Regional Council.

BACKGROUND

Moved by Councillor Murphy, seconded by Councillor Sloane, that staff examine a strategy for North Barrington to include crosswalks, better lighting, bus stops, and traffic calming.

Councillor Murphy outlined the area of North Barrington on a map, noting that this motion is supported by a petition with approximately 500 signatures requesting crosswalks, better lighting, bus stops, and traffic calming in the area of North Barrington Street/Devonshire Avenue/Richmond Street.

DISCUSSION

The problem of meeting demands for the control and protection of pedestrians (particularly children and senior citizens) is complex. Understandably, considerable public pressure is exerted from various organizations and individuals for the installation of signs, signals, and pavement markings for these purposes.

Although the safety of the pedestrian must have the highest priority, the extent to which it is feasible to protect pedestrians with traffic control measures has a definite limit. There is no indication that marked crosswalks are necessarily safer than unmarked crosswalks. Several surveys have determined that marked crosswalks are statistically less safe than unmarked ones, possibly because of the false sense of security the markings convey to pedestrians which leads them to be less cautious.

Because of the numerous requests for the marking of crosswalks and the installation of overhead crosswalk lights to supplement them, it has been necessary to establish criteria which provide an objective basis for evaluation as to where marked crosswalks and signs are installed on HRM roadways. The attached "Traffic Control Practices and Warrants" sheets explain the rationale for the criteria. Given that it is not practical to mark crosswalks at every intersection and bus stop, most jurisdictions use some form of evaluation criteria to determine which crosswalks will be marked and which will not.

The Transportation Association of Canada (TAC) guidelines for marked crosswalk installation have been adopted for use in HRM. The TAC guidelines require that the volume of traffic results in fewer than 120 crossing opportunities per hour and there be a minimum of 20 pedestrians per hour crossing.

Pedestrian counts were recently conducted at intersections along Barrington Street where marked crosswalks were requested and the results are summarized below.

PEDESTRIAN COUNTS CROSSING BARRINGTON STREET				
Location	Date	Time	# of Crossings	Equivalent Adult Units
at Duffus Street	May 15, 2007	8:00 - 9:00 a.m.	2	2
at Duffus Street	May 14, 2007	4:30 - 5:30 p.m.	4	4
at Richmond Street	May 15, 2007	8:00 - 9:00 a.m.	7	13
at Richmond Street	May 14, 2007	4:15 - 5:15 p.m.	15	17
at Young Street	May 16, 2007	8:00 - 9:00 a.m.	4	5
at Young Street	May 15, 2007	4:30 - 5:30 p.m.	3	3

It should be noted that all pedestrians who crossed within visibility of an intersection were counted as if crossing at that intersection. The results indicate that the number of pedestrians crossing Barrington Street in this area is relatively low. This is consistent with other pedestrian counts done in the same area in past years.

Metro Transit daily bus load counts from Fall 2006 indicate that not more than 50 people get on or off at any of the north bound bus stops on the east side of Barrington Street (the only bus stops requiring anyone to cross the road).

Pedestrian collision report information provided by the Registry of Motor Vehicles indicates that of the 29 total pedestrian related collisions for all of Barrington Street since 2001, only two were reported to have occurred on the section of Barrington between Devonshire Avenue and Duffus Street.

In view of the high volume of traffic and the low number of pedestrian crossings, marked crosswalks would not necessarily lead to an improvement in safety at these locations. Even equipped with overhead flashing lights it would likely result in a false sense of security for pedestrians and a potential increase in rear-end vehicle collisions at the various intersections.

Given the new residential development on the southwest corner of Barrington and Richmond with the possibility of additional Transit usage at this intersection, HRM Traffic Services will continue to count pedestrian crossings at this location periodically and will install a marked crosswalk if the required criteria is met.

The petition refers to residents wanting signs on Devonshire at Richmond to prohibit trucks from turning onto Richmond Street. Devonshire Avenue is a daytime truck route and Barrington Street north of Cogswell Street is a full time truck route. Richmond Street which connects to Devonshire Avenue and Barrington Street is not a truck route. However, truckers servicing the apartment construction site bounded by Barrington, Richmond and Veith Streets are legally permitted to use Richmond Street as long as they take the shortest route to and from the nearest truck route. The HRM Truck Route Ordinance does not provide for the use of prohibitive signage because trucks are prohibited from any non-truck route unless making a pick-up or delivery.

With respect to concerns expressed regarding excessive speeding on Devonshire Avenue, results of periodic speed monitoring by Police have not indicated that the prevailing speeds are any higher than other, similar streets in HRM. As on most streets, the majority of drivers travel within the speed limit with only a very small percentage of violations recorded. Police will continue to target this area periodically for selective speed enforcement and failure to yield to pedestrians at crosswalks.

BUDGET IMPLICATIONS

There are no 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.

ATTACHMENTS

1. Marked Crosswalks
2. RA-5 Overhead Crosswalk Signs

A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/agenda.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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4. PAVEMENT MARKINGS

5.1 MARKED CROSSWALKS

What are they?

A marked crosswalk installation consists of two painted parallel lines across the roadway and four ground mounted pedestrian crosswalk signs, two signs for each direction of travel.



Where are they installed?

The following criteria ensure that marked crosswalks are established only at locations where a need for pedestrian assistance exists and where operation of such an installation will be safe and efficient.

- Crosswalks will not be marked at locations where pedestrian safety may be compromised:
 - because visibility is restricted by horizontal or vertical alignment
 - where stopping sight distance is insufficient due to prevailing operating speeds
 - by complex lane configuration and usage.
- Crosswalks should not be marked at locations within 200 meters of an existing “protected” crosswalk (i.e. equipped with traffic signals or stop signs or RA-5 signs).
- The pedestrian volume must be in excess of 20 pedestrians crossings per hour in at least one hour of the day. Disabled persons, seniors (over 65) and unaccompanied children (under 12) will be factored as 2 crossings.
- Vehicular volume results in fewer than 120 pedestrian crossing gaps per hour during peak traffic times. (A crossing gap is defined as the time needed to cross a roadway at a walking speed of 1.2 metres per second plus 3 seconds of perception/reaction time, and varies from 9 seconds for a typical two lane street to 15 seconds for a four lane roadway.)

What are the issues?

- Since crosswalks exist by legal definition at all intersections whether marked or unmarked, the determination of whether a crosswalk needs to be marked is based primarily on the necessity to create gaps in traffic. At locations with low traffic volume, pedestrians can generally cross a street without difficulty and more safely by waiting a short time for a crossing gap.
- On higher volume streets, pedestrians may experience excessive delays while waiting for acceptable gaps unless drivers stop to permit them to cross. Marked crosswalks are useful in providing notice to drivers that pedestrians are likely to be encountered at a particular location on a regular basis. If the pedestrian activity is minimal and sporadic, however, the marked crosswalk becomes a redundant device and simply becomes part of the background “sign clutter” along the roadside.
- When crosswalk markings are used sparingly, individual locations are more conspicuous. To over-saturate the streets with crosswalk markings would reduce their significance greatly.

SIGNALS

1.5 (RA-5) OVERHEAD CROSSWALK SIGNS

What are they?

The basic marked crosswalk installation (which consists of two painted lines across the roadway and four ground-mounted pedestrian crosswalk signs - two signs for each direction of travel) may be supplemented by overhead illuminated pedestrian crosswalk (RA-5) signs. Two RA-5 signs are required for each crosswalk and are positioned over the centre of the approach lane(s) with the pedestrian symbol oriented to the center of the roadway. As well as helping to indicate the location of the crosswalk at night, the illuminated RA-5 sign provides down-lighting over the crosswalk area.



The RA-5 signs may be supplemented by pedestrian actuated flashing amber signals. Each sign has two flashing light units, one facing in each direction, flashing alternately.

Where are they used?

RA-5 overhead illuminated crosswalk signs may be installed at existing marked crosswalk locations when there is a demonstrated need for nighttime illumination of the crosswalk area which is not provided by existing street lights. RA-5 signs may also be considered for use when vehicular approach speeds are high, when visibility of the crosswalk is limited and/or there is a history of pedestrian related accidents. RA-5 signs with pedestrian actuated flashing amber signals are intended for use on multi lane roadways.