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Halifax Regional Council
November 14, 2006

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY: 
Ken Reashor, P.Eng, Traffic Authority

DATE: October 26, 2006

SUBJECT: **Councillor McInroy - 2006 Crosswalk Education and Public Awareness Program**

INFORMATION REPORT

ORIGIN

Item 7.2 raised at the April 25, 2006 meeting of Halifax Regional Council.

BACKGROUND

At the April 25, 2006 meeting of Halifax Regional Council, it was moved by Councillor McInroy and seconded by Councillor Hendsbee, that staff provide a report on the following concerns and issues:

- replacement of amber flashing lights with red lights,
- placement of a pole mounted flashing light at roadsides to supplement the overhead light,
- use of ladder type cross hatch or zebra design to paint the crosswalks versus the two white lines,
- the installation of a high visibility fluorescent yellow/green crosswalk sign at these locations similar to the signs that have replaced the school zones,
- consultation be undertaken with the Province with regards to an amendment to Section 125(1) of the Motor Vehicle Act to prohibit drivers from proceeding through a crosswalk while pedestrians are still in the crosswalk,
- examine the possibility of an annual Crosswalk Awareness Week around Labour Day.

In addition, Councillor Hum suggested the visibility of the crosswalks may be enhanced by placement of a centre line post cautioning that there is a crosswalk.

Councillor Sloane suggested the report examine busy urban streets such as North and Maynard.

Councillor Adams suggested staff examine an education awareness program for the walking public as well, such as the placement of black or contrasting background on the RA-5 lights.

Councillor Murphy suggested four way stop signs be made more visible in some way.

Councillor Kent suggested the report also examine an educational component for crosswalk guards as they are in a vulnerable position.

Councillor Wile noted that Dunbrack and Lacewood have six lanes and requested the timing of the crosswalk lights be examined to allow more time for pedestrian crossing. She noted that due to the number of lanes there should be a way that once a pedestrian arrives at the centre median the traffic on the side just crossed should be permitted to proceed.

DISCUSSION

Replacement of Amber Flashing Lights with Red Lights:

Flashing red lights for pedestrian-activated overhead RA-5 crosswalk signs have been suggested as more effective than flashing amber lights, but HRM is required to comply with Provincial regulations for traffic control devices. The Province has adopted the national standards established by Transportation Association of Canada (TAC) in the Manual of Uniform Traffic Control Devices for Canada (MUTCDC) which specify amber flashers for overhead pedestrian crosswalk signs.

Amber flashing beacons were approved in the MUTCD for use with RA-5 overhead crosswalk signs

instead of red flashing beacons because some cities in Canada (mainly in the western provinces) had experimented with the use of flashing red beacons with less than desirable results. Since flashing red lights tell a motorist to stop then proceed after having yielded, there was confusion as to what was required when the pedestrian had completed the crossing but the lights continued to flash. There were instances of motorists ignoring the flashing red lights when they saw no need to stop. The flashing red lights also changed the perception of the right-of-way at intersections with motorists on the side streets theoretically having the right-of-way over motorists stopped for the flashing red lights on the main street. The confusion surrounding flashing red lights at crosswalks was believed to create potentially dangerous driving practices at locations where drivers were required to stop and remain stopped while red lights flash, such as at railway crossings or at fire stations.

The few jurisdictions still using flashing red lights that we are aware of (Regina, Moose Jaw and Red Deer for example) are not in compliance with national standards and are definitely among the minority across Canada.

Pole Mounted Flashing Light at Roadsides to Supplement the Overhead Light:

Overhead illuminated crosswalk signs with pedestrian-activated flashing amber beacons (commonly referred to as RA-5 signs) are regulatory traffic control devices and therefore must conform in size, shape, colour and design to the "Regulations Respecting Traffic Signs" made by the NS Minister of Transportation pursuant to the Motor Vehicle Act. The RA-5 sign was adopted for use in Nova Scotia in 1988 after it had been put forward as a national standard for overhead illuminated crosswalk signage in the Manual of Uniform Traffic Control Devices for Canada (MUTCD). The RA-5 sign was approved for use in Canada after a nearly ten year study project by the Chief Engineers Council of the Transportation Association of Canada (TAC) recommended adoption of a uniform "special crosswalk" system comprised of side-mounted black on white pedestrian symbol signs; overhead internally illuminated white on black pedestrian symbol signs (with optional pedestrian activated flashing amber beacons); and pavement markings.

The overhead crosswalk signs with flashers, like overhead traffic signals, must be positioned high enough to provide clearance for trucks (minimum 5.1 meters and maximum 6.0 meters, according to the MUTCD specifications) and therefore cannot be lowered. Before and after testing of additional flashing lights mounted on poles at the side of the road has been conducted at various crosswalk locations in HRM and other jurisdictions around the Province. Results to date have been disappointing in that the level of driver compliance does not seem to increase.

Ladder Type Cross Hatch or Zebra Design to Paint the Crosswalks Versus the Two White Lines:

Prior to amalgamation, the City of Halifax, City of Dartmouth, and Town of Bedford used "zebra striping" in all marked crosswalks not controlled by traffic signals or stop signs. Twin parallel line design was used at all controlled marked crosswalks. All marked crosswalks maintained by the Province in the remainder of the county, whether controlled or uncontrolled, were painted with twin parallel lines only.

After amalgamation, the decision was made by HRM's Traffic Authority of the time to adopt the

Provincial standard of twin parallel lines, primarily for the sake of consistency, although there were other considerations:

- in wet or snowy weather, large pavement markings can be very slippery and there had been instances of pedestrians falling or vehicles skidding on them;
- there were no conclusive studies indicating that the zebra design was any more effective than the twin lines;
- and the cost of painting the zebra design was more expensive.

Installation of a High Visibility Fluorescent Yellow/Green Crosswalk Sign:

In 2000 the Transportation Association of Canada (TAC) changed the colour specification from blue to fluorescent yellow-green for school area signs in the MUTCD with a five-year phase-in period. Subsequently, Traffic Sign Regulations made under Section 88 of the Nova Scotia Motor Vehicle Act were revised to comply.

The Province of Nova Scotia commissioned a study in 2002 to evaluate whether or not to pursue the use of fluorescent yellow-green sheeting on regulatory crosswalk signs. Motorist and pedestrian behaviours were measured at 24 sites (12 urban and 12 rural) where motor vehicle-pedestrian conflicts had occurred. The fluorescent yellow-green crosswalk signs, although more conspicuous, produced no improvement in yielding behaviour or motor vehicle-pedestrian conflicts. The only fluorescent yellow-green signs currently approved for use in Nova Scotia are WC-1 "School Area" signs and R-102 "End School Area" signs which are installed adjacent to schools.

Amendment to Section 125(1) of the Motor Vehicle Act to Prohibit Drivers From Proceeding Through a Crosswalk While Pedestrians are Still in the Crosswalk:

Section 125(1) of the Nova Scotia Motor Vehicle Act presently states "The driver of a motor vehicle shall yield the right of way to a pedestrian within a marked crosswalk or within an unmarked crosswalk at the end of a block, except at intersections where the movement of pedestrian traffic is being regulated by peace officers or traffic control signs." In the course of consultation with the Province on this item at the request of Council, the following response was received:

"The current Section 125(1) requires a motorist to yield the right of way to a pedestrian lawfully within a crosswalk. It would appear the current language addresses Council's concern; however, we would be prepared to consider any amendment proposal, with background reasons, that would clarify or strengthen this particular law in the interests of public safety."

Although the Province is willing to make changes to the language of the law if there are supporting reasons for such an amendment, the question that remains unanswered is what does the existing wording lack in terms of enforceability? Police have not indicated any particular inability to issue tickets to drivers in violation of Section 125(1), nor have there been any substantive examples of issued tickets unable to be upheld in court because of the present wording of the law.

In order to give the right of way (defined in the Motor Vehicle Act as “the privilege of the immediate use of the highway”) to a pedestrian, a driver must slow down or stop if necessary so that the pedestrian is not forced to slow down, speed up, or stop in order to avoid a collision. Yielding the right of way to a pedestrian in a crosswalk does not presently require a driver to come to a complete stop from the time the pedestrian enters the crosswalk to the time he/she exits it.

Changing the legislation to require a driver to come to a complete stop for the full length of time required for a pedestrian to walk from curb to curb would result in excessive delay and would not necessarily result in fewer pedestrian collisions since the majority of pedestrian injury collisions are the result of inattention of either the driver, the pedestrian, or both. Also, such a radical change would require an extensive re-education of drivers province-wide and would not be consistent with the majority of jurisdictions in the rest of North America.

Annual Crosswalk Awareness Week Around Labour Day:

Police Traffic Services Unit and HRM Traffic & Right of Way Services staff meet regularly to target traffic related safety issues and address them through a coordinated approach of education, enforcement and engineering. A primary focus of education and information campaign efforts has been crosswalk safety. Traffic & Right of Way has been promoting awareness of crosswalk safety through newspaper articles, Metro Transit bus panels and television advertising. HRM teamed with Global Television to produce six Public Service Announcements which aired in Spring of 2005. This series was repeated in the Summer of 2006 along with new Public Service Announcements related to crosswalk and bicycle safety issues.

Police Traffic Services Unit has run Crosswalk Safety Theme months during February, July and September of 2006. Their campaign was comprised of monitoring busy intersections, and school, university and hospital areas for crosswalk and speeding violations. Officers set up check points during which traffic safety literature related to crosswalks is distributed while also checking for seatbelt use, expired licenses and various other violations. Media relations are employed in conveying safety messages to the public through radio, television and newspaper interviews, Public Service Announcements and traffic safety tips. Special attention is always given to Back to School, School's Out, Halloween, Winter Driving, and other seasonal pedestrian safety messages. While Crosswalk Awareness Week is a fine concept, crosswalk safety needs to be promoted consistently and relentlessly to keep it in the public's awareness.

Enhance Visibility of the Crosswalks by Placement of a Centre Line Post:

Enhancing the visibility of crosswalks by placing a crosswalk sign on a post in the middle of a roadway is already done where there is a median or a pedestrian refuge island. Use of such a centre line sign post on a two-lane roadway without a median or raised island is not recommended as it would be a traffic hazard and a maintenance problem.

Marked Pedestrian Crossing on North Street at Maynard Street/Fuller Terrace:

The existing marked crosswalk on North Street at Maynard Street/Fuller Terrace is presently equipped with the basic marked crosswalk installation (which consists of two painted white lines across the roadway and four ground-mounted pedestrian crosswalk signs - two signs for each

direction of travel) and is supplemented with overhead illuminated pedestrian crosswalk (RA-5) signs. The two illuminated RA-5 signs which are present at the crosswalk - one sign positioned over the centre of each lane, help to designate the location of the crosswalk at night and provide additional nighttime downlighting over the crosswalk area. Pedestrian-actuated flashing amber lights are intended for use on multi-lane roadways and are not considered necessary at this two-lane crosswalk location.

Pedestrian actuated flashing amber lights are not legally required at any marked crosswalk. They are basically a supplementary traffic control device designed for more complex locations where a driver's attention may be difficult to obtain with a simple marked crosswalk. On wide, multi-lane streets it is often difficult for a pedestrian to make eye contact or to signal his/her intention to cross by raising a hand. Flashers are less useful on a narrower two-lane roadway and can have a negative effect of increasing rear-end vehicle collisions if pedestrians activate the flashers and immediately step into the travelway without first waiting for traffic to slow to a stop.

In the case of the marked crosswalk on North Street at Maynard Street, there is no particular difficulty in conveying a pedestrian's crossing intention to a driver. Some drivers may choose deliberately not to stop and others may be inattentive and fail to stop, but that is not something that flashing lights can overcome.

Education Awareness Program for the Walking Public:

As noted previously, the education awareness program is directed at both drivers and pedestrians. RA-5 overhead crosswalk lights with flashers are in compliance with Provincial specifications.

Four Way Stop Signs:

Stop signs must comply with the official Traffic Sign Regulations pursuant to the Motor Vehicle Act which in turn are pursuant to the Manual of Uniform Traffic Control Devices for Canada. Relatively new retro-reflective sheeting is now being used for stop signs which results in them being brighter and more visible both by day and by night.

Educational Component for Crosswalk Guards:

HRM already has an educational component for crosswalk guards. All new crossing guards are trained with the assistance of the Provincial Crossing Guard Handbook by their respective supervisors. The supervisors ensure that new guards are given proper direction in the conduct of their duties and responsibilities at crosswalks near schools. In addition, a refresher training period is held each year prior to school starting in conjunction with an administration session for all returning crossing guards.

Timing of the Crosswalk Lights to Allow More Time for Pedestrian Crossing:

The pedestrian crosswalk timings at the intersection of Dunbrack Street and Lacewood Drive (as at all signalized intersections in HRM) are calculated according to a formula based on national traffic signal standards used across North America. At signal locations equipped with push buttons, such as Dunbrack/Lacewood, a walk signal is displayed for seven seconds before a Flashing Don't Walk signal is displayed for the remaining length of time necessary for pedestrians to complete their

crossing at a comfortable walking speed. Pedestrians crossing within the crosswalk while the Flashing Don't Walk signal is displayed continue to have the right of way over vehicles and will have sufficient time to complete their crossing. The Flashing Don't Walk feature is intended to warn pedestrians who have not yet started to cross that there may not be enough time left to start and complete their crossing safely at a regular walking speed. Some pedestrians misunderstand the Flashing Don't Walk display and assume that the walk signal should be displayed long enough for them to cross from curb to curb. This is not the case.

As to permitting traffic on the side just crossed to proceed once a pedestrian arrives at the centre median, any legal movements by drivers are permitted after first yielding to pedestrians, ie. drivers facing a red light would be allowed to turn right, but otherwise could not proceed until they received a green light.

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.

ALTERNATIVES

There are no recommended alternatives.

ATTACHMENTS

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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