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B3J 3A5 Canada

Halifax Regional Council
December 16, 2003

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY:

A handwritten signature in black ink, appearing to read "Rick Paynter". The signature is written over a horizontal line that extends across the page.

Rick Paynter / P.Eng., Traffic Authority

DATE: December 5, 2003

SUBJECT: RA-5 Overhead Crosswalk Signs with Flashing Lights

INFORMATION REPORT

ORIGIN

November 24, 2003 Western Region Community Council meeting, item 13.3.

BACKGROUND

The following motion was made re a request for a report to go to Regional Council:

THAT the Traffic Authority be requested to investigate and provide a report to Regional Council, since it will encompass all areas of HRM, as to whether or not the colour of the RA-5 Overhead Flashing Crosswalk Signs can be changed from amber to red or blue and further that a 2-3' square black background be put around the lights to enhance the contrast of the light against the background.

DISCUSSION

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 to the "Regulations Respecting Traffic Signs" made by the 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 forth 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 10 year study project recommended adoption of a uniform "special crosswalk" system comprised of side-mounted signs, overhead internally illuminated signs with pedestrian activated flashing amber beacons, and pavement markings.

Amber flashing beacons were approved in the MUTCD for use with RA-5 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 when safe, 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 street 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 establish potentially dangerous driving habits. After several years of experience in Calgary and Regina, the use of flashing red lights at crosswalks was discontinued. To the best of our knowledge, there are presently no Canadian cities using flashing red lights (or blue lights) at crosswalks.

The attached diagram shows the standard specifications for RA-5 crosswalk signs used in HRM which conform to the Province of Nova Scotia Schedule of Official Highway Signs. It should be noted that the Province does not require that RA-5 signs be equipped with flashing amber lights; the RA-5 signs may be supplemented by pedestrian actuated flashing lights and the flashing lights are normally reserved for crosswalks located on multi-lane roadways.

Use of a backboard around the flashers is not recommended or required by either the MUTCD or the Province. A major consideration with overhead signs is wind load, which is why the RA-5 signs themselves are relatively small: 60 x 75 cm (2'x2.5'). Adding 60x60cm backboards to each flashing light would almost triple the amount of surface area of the sign and cause significant problems in trying to keep the signs properly oriented to traffic under windy conditions.

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.

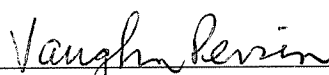
ALTERNATIVES

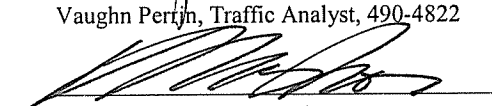
There are no recommended alternatives.

ATTACHMENTS

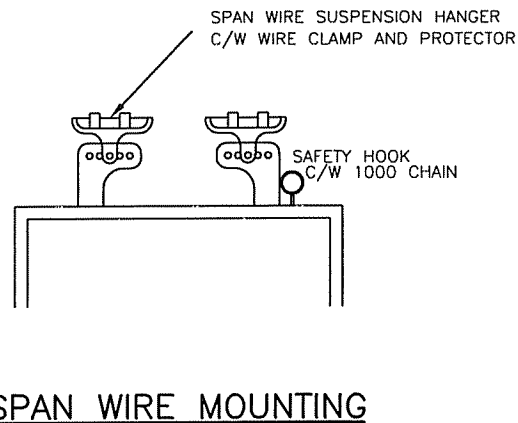
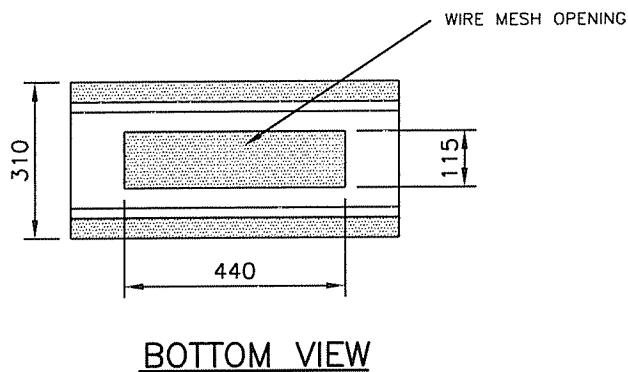
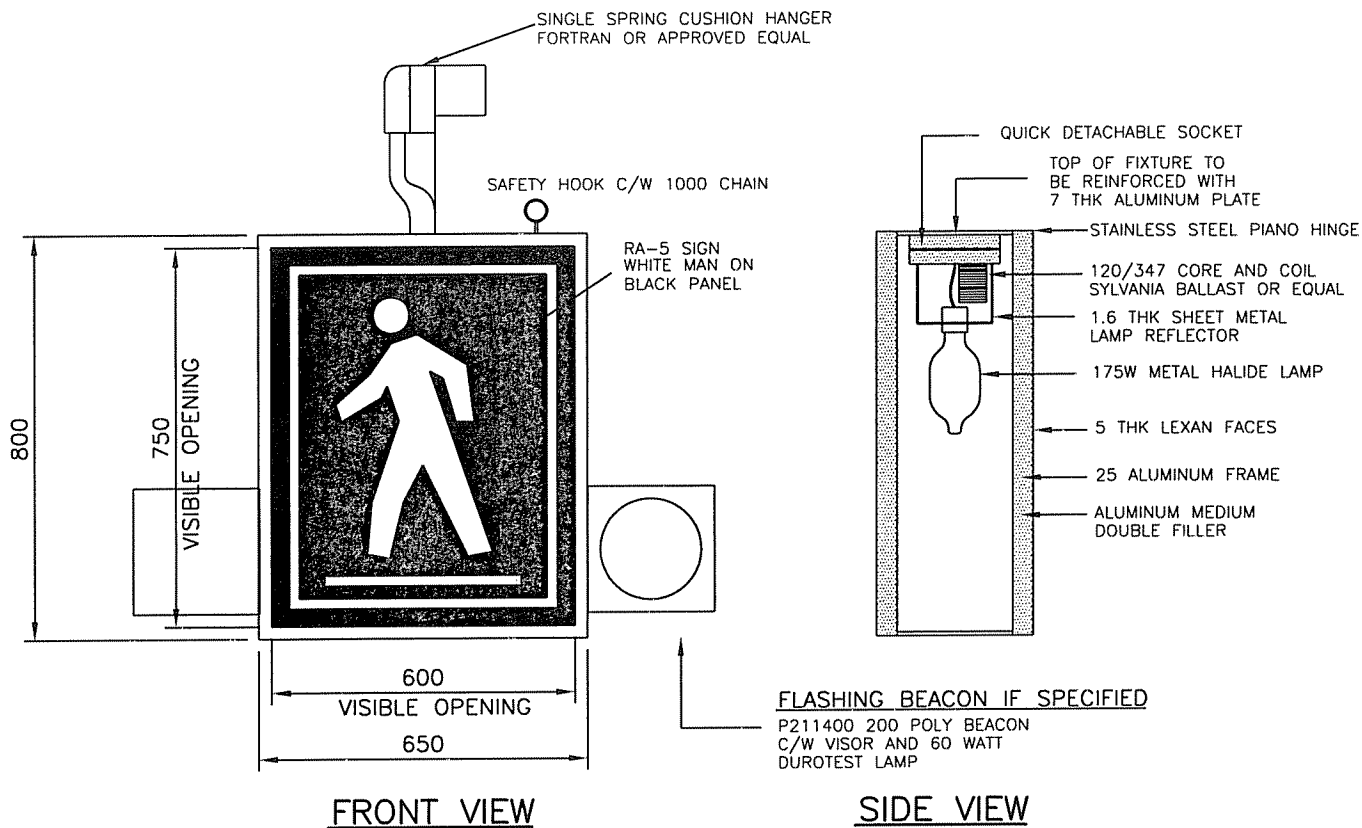
Standard Detail - RA-5 Crosswalk Sign
Copy of (RA-5) Overhead Crosswalk Signs Policy

Additional copies of this report, and information on its status, can be obtained by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Report Prepared by: 
Vaughn Perrin, Traffic Analyst, 490-4822

Report Approved by: 
Ken Reashor, P.Eng., Acting Manager
Traffic & Transportation Services

VP/bmh



NOTES

1. BODY: WELDED ALUMINUM FRAME TREATED TO PREVENT PREMATURE PEELING WITH 5519 ETCH PRIMER, 519 CONVERTER AND PAINTED 514 CROSSWALK YELLOW
2. TOP AND SIDE PANELS - 3.2 THK
3. STAINLESS STEEL HINGES WITH REMOVABLE PINS TO HOLD DOOR FACES OF SIGN TO MAIN SIGN AND STAINLESS LATCH TO ENSURE CLOSE DOOR FACES TO MAIN SIGN
4. NO EXPOSED WIRING EXCEPT FOR TERMINAL ENDS IN BOTTOM OF SPRING CUSHION HANGER
5. SIGN ASSEMBLY TO BE PRE-WIRED AND CSA CERTIFIED
6. INSIDES TO BE COVERED WITH WHITE REFLECTIVE MATERIAL
7. ALL DIMENSIONS IN MILLIMETRES

<h1 style="margin: 0;">HALIFAX</h1> <p style="margin: 0;">REGIONAL MUNICIPALITY PUBLIC WORKS AND TRANSPORTATION DESIGN AND CONSTRUCTION SERVICES</p>		
<p style="margin: 0;">STANDARD DETAIL</p> <p style="margin: 0;">RA-5 CROSSWALK SIGN</p>		
DATE: OCT 2003		DESIGN: pVB
SCALE: NTS		FIG NO.:

(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 lights. 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 lights are intended for use on multi lane roadways.