
TRAFFIC SAFETY COMMITTEE

*HIS WORSHIP, THE MAYOR
AND COUNCILLORS*

SUBJECT: CANADA WAY & SPROTT STREET ROAD SAFETY REVIEW

RECOMMENDATION:

1. THAT the road safety improvements at Canada Way & Sprott Street, including street lighting, a traffic island, signs and road markings as discussed in this report be approved.

REPORT

The Traffic Safety Committee, at its meeting held on 2007 June 12, received and adopted the *attached* report responding to an RCMP report reviewing recent accident history and examining possible safety improvements for the Canada Way & Sprott Street intersection.

Respectfully submitted,

Councillor N. Volkow
Chair

Councillor S. Dhaliwal
Vice Chair

Councillor G. Evans
Member

Copied to: City Manager Director Engineering

TO: CHAIR AND MEMBERS
TRAFFIC SAFETY COMMITTEE

DATE: 2007 May 15

FROM: ASST. DIRECTOR ENGINEERING,
TRAFFIC & ENGINEERING SYSTEMS

FILE:
Reference:

SUBJECT: **Canada Way & Sprott Street Road Safety Review**

PURPOSE: To respond to an RCMP report reviewing recent accident history and examine possible safety improvements for the Canada Way & Sprott Street intersection.

RECOMMENDATION:

1. **THAT** the road safety improvements at Canada Way & Sprott Street, including street lighting, a traffic island, signs and road markings as discussed in this report be approved.

REPORT**1.0 Introduction**

An investigation of the intersection of Canada Way & Sprott Street was conducted by the Burnaby RCMP Traffic Section due to a number of recent traffic accidents. In the report, causal factors were summarized to ascertain collision patterns and look for possible safety improvements to the roadway. This report considers that information and suggests several treatments.

1.0 INVESTIGATION

The six crashes documented in the RCMP report all involve eastbound Canada Way vehicles crossing the centre line where the road curves at Sprott Street. Five of those crashes involved collisions with westbound Canada Way vehicles. Reduced visibility of the road from time of day and weather were cited as possible contributing factors.

2.0 STREET LIGHTING

A survey of the street lighting in the area shows the City's finished standard in place along Canada Way consisting of staggered alternating 250 Watt high pressure sodium vapour lights spaced at approximately 32 metre intervals. There is also finished standard lighting along Sprott Street and on Douglas Road south of Sprott. Lighting on Douglas Road north of Sprott is serviced by interim standard leased lights on BC Hydro utility poles.

On Sprott between Douglas and Canada Way there is currently one light located on the south side. There is room to install one additional light on the north side of Sprott adjacent the east

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property line of 5573 Sprott, and there is capacity available on the existing Canada Way light system to accommodate the increased load. The estimated cost to install this light, which includes a 9m pole and 150 Watt luminaire to match the Sprott Street lighting, connecting wiring conduit and junction box is approximately \$15,000.

3.0 LUMINAIRES

To reduce glare or flaring from the existing street lighting and better focus lighting coverage on the roadway, it is recommended to update the existing drop glass style luminaires with “cut-off” or flat lens luminaires. Flat lenses are the City’s current standard for all new or repair/replacement installations and allow driver’s eyes to better adjust by eliminating “hot points” above the roadway.

4.0 PAVEMENT MARKING

Reflective “raised pavement markers” (RPM’s) or “cat-eye reflectors” are placed along the centre-line on Canada Way as part of the annual maintenance program. High traffic volumes, trucks and snowplowing dislodge many during the course of a year. Generally reflectors are placed at 30 metre intervals, decreasing to 15 metre spacing around sharp curves.

As part of this year’s annual maintenance program for pavement marking, the spacing of the RPM’s along the centre line at Canada Way & Sprott will be decreased from the typical 15 to 20 metre spacing used around the corner, to 5 metres for the 100 metre section at this intersection to increase visibility and allow for greater chance of retention over the winter.

There is also a break in the centerline (typical at all street intersections) which is at the beginning of the curve for eastbound drivers; a dashed continuity line will be added through the intersection as part of the annual maintenance.

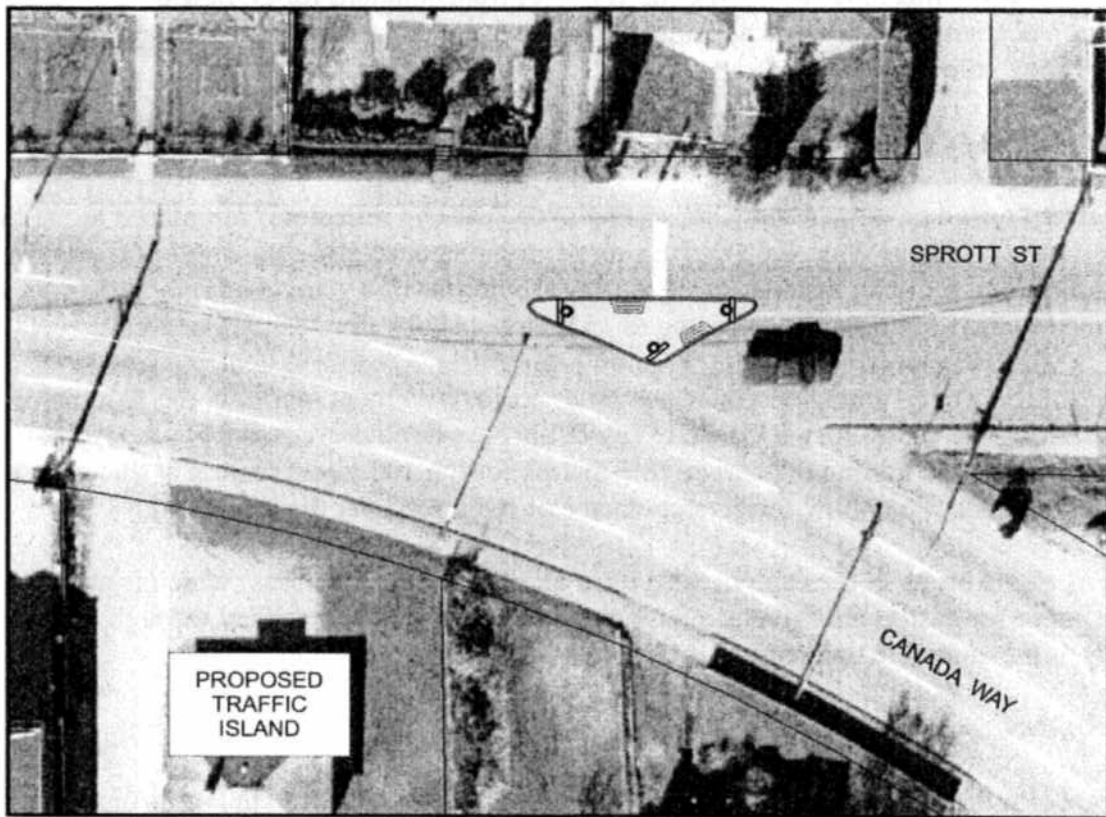
5.0 SIGNS

The problem described in the RCMP report relates to eastbound drivers not recognizing the Canada Way road alignment, therefore the intent of any advisory signs should focus on the curve. While a curve warning sign is expected to have only a minimal impact, it is a low cost item and can be installed quickly. Technically, a specially designed warning sign depicting an intersection with the main road curving would be the normal application here, but adding elements showing the intersection could dilute the main message to advise drivers of the change in road alignment.

Installation of a speed advisory sign for the curve is not recommended. Speed warning signs are only appropriate where the safe driving speed falls below two thirds of the speed limit or design speed of the road, and for corners of 90 degrees or more. With a safe driving speed of 50 km/h and relatively modest curve, a speed warning sign is not warranted.

6.0 ROADWORKS

In order to further define the road alignment, creation of a small delta island is proposed as described in the following diagram. The island adjacent the stop bar on Sprott Street will allow for installation of signs, and the curbing being raised will further delineate the travel path on Canada Way. An added benefit will be the more formalized “left turn” required for eastbound vehicles leaving Canada Way onto Sprott.



Ultimately, Canada Way designated as a Primary Arterial roadway, will be built with a cross section that includes a raised centre median thereby mitigating much of the hazard from centerline crossover accidents. The existing right-of-way and available road width do not permit the installation of a median or barriers to separate the opposing travel lanes at this time. Staff have been proceeding with right of way acquisition as adjacent properties redevelop, but this is a long term process and it will be many years before the centre median can be realized. In the near term, the suggested signs, markings, lighting and traffic island listed in this report should provide for improved driver safety at this intersection.

7.0 TRAFFIC SIGNAL

Visibility of the eastbound primary traffic signal head at Douglas Road & Sprott Street from Canada Way was mentioned as a possibly misleading element for drivers. Installation of

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louvered visors is a quick and low cost update which will shield the signal display view from Canada Way.

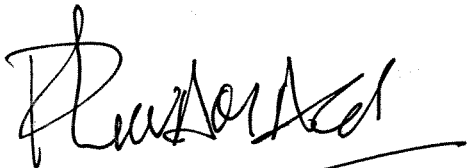
8.0 CONCLUSION

Resulting from this review, a curve warning sign will be installed on Canada Way eastbound prior to Sprott Street, the centre line will be augmented with a dashed continuity line at the intersection and additional raised reflective pavement markers will be installed at 5 metre intervals through the curve, up from the current 15 to 20 metre spacing. This work will be conducted during annual maintenance.

Additional recommendations for road safety improvements are:

- Installation of a 150 Watt HPS street light on the north side of Sprott, adjacent 5573, mounted on a 30 foot pole..
- Replacement of existing street light luminaire lenses with flat "cut-off" lenses to reduce glare and focus light on the roadway
- Installation of a raised island to improve the visual continuity of Canada Way at the intersection of Sprott..
- Installation of louvered visors on the primary signal head at Sprott Street & Douglas Road (eastbound) to limit visibility from Canada Way.

The total estimated cost for these additional improvements is \$30,000. Sufficient funds are available in the Traffic Management budget to carry out this work this year.



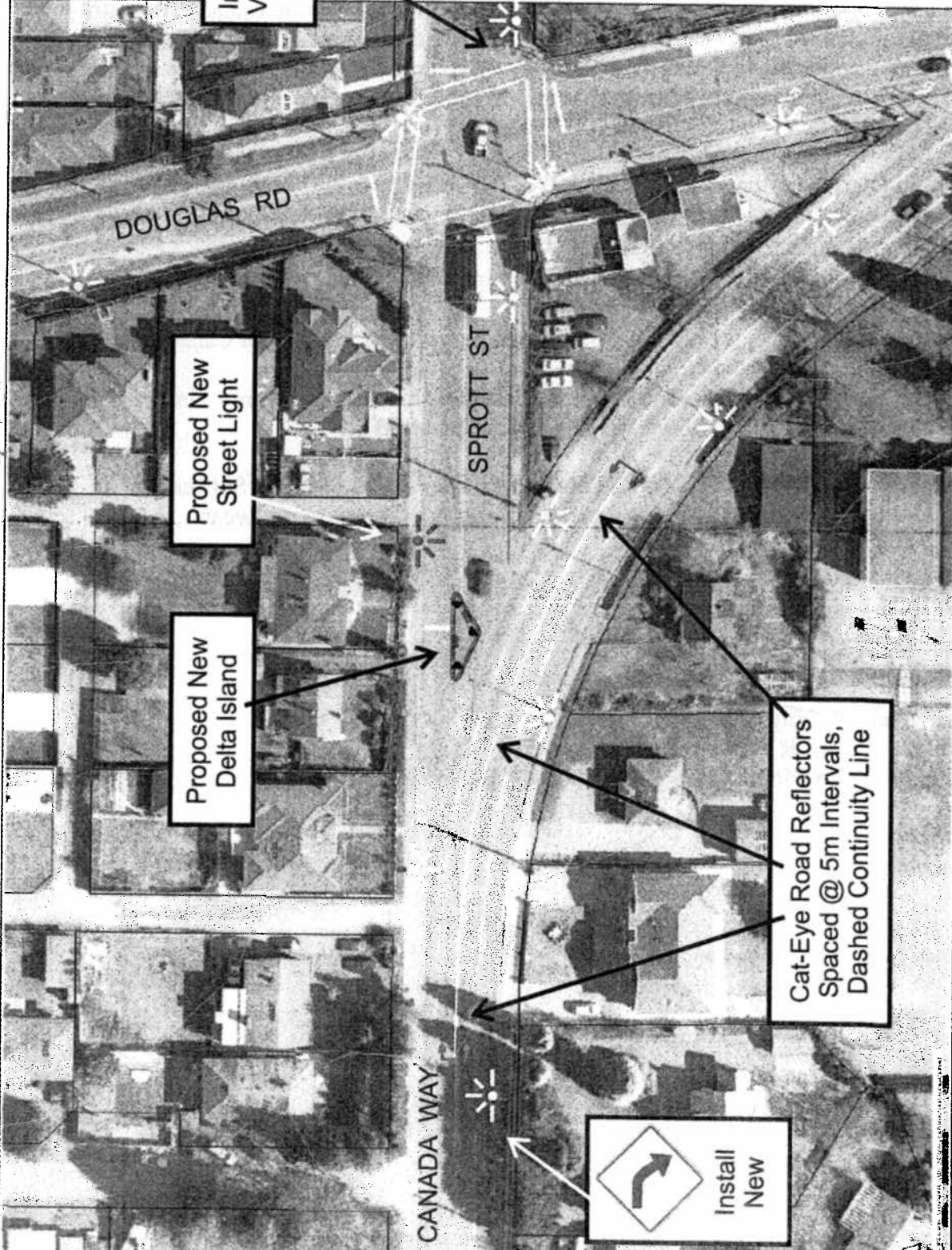
P. Liivamagi, P. Eng.
ASST. DIRECTOR ENGINEERING,
TRAFFIC & ENGINEERING SYSTEMS

MDS:cg
Attachment

Copied to: City Manager

Canada Way @ Sprrott Street

May 03, 2007



Road Layout Showing Existing Street Lights & Proposed Improvements

Map Scale
1 : 1000

This information has been gathered and assembled on the City of Burnaby's computer systems. Data provided herein is derived from a number of sources with varying levels of accuracy. The City of Burnaby disclaims all responsibility for the accuracy or completeness of information contained herein.