



City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** July 30, 2004
From: Victor Wei, P. Eng. **File:** 10-6340-20-P.01202/Vol
Acting Director, Transportation 01
Re: **GREAT CANADIAN WAY (GARDEN CITY ROAD EXTENSION) – TRAFFIC
FLOW CHANGES AND PROPOSED CITY CENTRE ROAD SIGNAGE PLAN**

Staff Recommendation

That the attached report on traffic pattern changes as a result of the opening of the Great Canadian Way (former Garden City Road extension) between Sea Island Way and Bridgeport Road be received for information.

Victor Wei
for: Victor Wei, P. Eng.
Acting Director, Transportation
(4131)

Att. 2

FOR ORIGINATING DIVISION USE ONLY					
ROUTED TO:		CONCURRENCE		CONCURRENCE OF GENERAL MANAGER	
Engineering		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		<i>Victor Wei</i>	
REVIEWED BY TAG		YES	N/A	REVIEWED BY CAO	
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Staff Report

Origin

Great Canadian Way, formerly known as the extension of Garden City Road, from Sea Island Way to Bridgeport Road has recently been completed in November 2003. Since it's opening, staff have assessed the traffic pattern change on adjacent roadways in the area, particularly No. 3 Road. The further extension of this roadway to River Road has recently been opened in late June this year.

This report highlights the traffic volume and pattern changes observed to date as well as presents a proposed road guide signage plan in the City Centre area with the objective of providing motorists alternative routes to use to access the No. 3 Road core area.

In addition, at the July 12, 2004 regular Council meeting at which the renaming of the section of Garden City Road north of Sea Island Way to Great Canadian Way was approved, staff were directed to report on:

- *The lack of adequate road signage at the ingress/egress of Sea Island Way, Garden City Way and the Great Canadian Way; and*
- *the possibility of erecting orange pylons or other appropriate pillars to prevent extreme lane changes in this area.*

This report also presents staff's assessment and recommendation to Council on the above.

Analysis

One of the key objectives of the *City Centre Transportation Plan* is to sustain No. 3 Road as the city's main street by encouraging through traffic not destined for the City Centre to use the bypass route via Garden City Road. Since the opening of Great Canadian Way between Sea Island Way and Bridgeport Road, the road improvement has triggered notable diversions of traffic volumes from No. 3 Road to this new extended roadway.

1. Observed Diversion of Traffic from No. 3 Road to Great Canadian Way

To determine the traffic impacts of the opening of Great Canadian Way between Sea Island Way and Bridgeport Road, the average daily traffic volumes in February/March on both No. 3 Road and Garden City Road just north of Capstan Way were compared before (2002) and after (2004) the new road opening. The findings indicate that the No. 3 Road traffic volumes have dropped by approximately 10% or 3,000 vehicles per day in both directions, while the Garden City Road traffic volumes have increased by an average of 26% or 5,500 vehicles per day in both directions, with the southbound direction greater at 33% or 3,300 vehicles per day.

Comparing average Saturday traffic volumes for the afternoon peak hour (typically an hour between 2 pm and 4 pm) before and after the new road opening, the findings indicate that the No. 3 Road traffic volumes have dropped 15% or 180 vehicles per hour in the northbound direction with negligible change in the southbound direction. In the same time period, Garden City Road traffic volumes have increased 25% or 250 vehicles an hour in the northbound and 47% or 380 vehicles an hour in the southbound directions.

These changes to the traffic patterns suggest that the new Great Canadian Way extension is very successful in attracting traffic to use it, with most of the traffic coming from westbound Bridgeport Road, Costco and diversion of traffic from No. 3 Road.

2. On-going Monitoring

Staff have requested relevant traffic data from the Ministry of Transportation for Bridgeport Road and Sea Island Way but were advised that none was unavailable. Staff are expecting accident statistics from ICBC within the next several months in order to assess the impacts of the opening of Great Canadian Way on accident rates.

3. Proposed Signage Plan for City Centre

To further complement the intended function of Garden City Road south of Sea Island Way in providing alternative access routes to the No. 3 Road core area, staff propose a comprehensive guide signage plan, which would help facilitate improved vehicular circulation in the City Centre. The proposed new guide signs, would also address the concerns of existing congestion on No. 3 Road by providing motorists alternatives to travel on Garden City Road. Specifically, the new signs are aimed to provide improved guidance to motorists approaching Great Canadian Way and Garden City Road on the following arterial roads in the westbound direction:

- Bridgeport Road
- Sea Island Way
- Alderbridge Way
- Westminster Highway

For example, a motorist travelling westbound on Sea Island Way after exiting southbound Highway 99 would be made aware of the alternative to turn left to travel on Garden City Road southbound to access the No. 3 Road core area via one of the east-west arterial roads. The proposed guide signs, along with the location of placement, are shown in Attachment 1. The new signs will be mounted on existing streetlight and traffic signal poles to minimize costs.

The implementation of the proposed signs on Bridgeport Road and Sea Island Way is subject to the approval of Ministry of Transportation. Staff will carry out a before-and-after traffic pattern analysis to determine the effectiveness of the new signs in reducing the congestion on No. 3 Road once the new signs are put in place.

4. Proposed Guide and Street Name Signs for Great Canadian Way Intersections

The following sign improvements are proposed to enhance the gateway area of Sea Island Way and Bridgeport Road at Great Canadian Way:

- street name signs indicating the direction of Garden City Road and Great Canadian Way at the approaches on Sea Island Way and Bridgeport Road; and
- information guide signs indicating the direction of the Vancouver International Airport, Vancouver, and Highway 99 for each of the approaches to the intersection of Bridgeport Road and Great Canadian Way, as illustrated in Attachment 2.

5. Proposed Safety Enhancements for Northbound Traffic on Garden City Road

In order to enhance the safety for northbound traffic on Garden City Road approaching Sea Island Way, the following additional traffic control measures, as shown in Attachment 2, are proposed:

- an overhead sign indicating the lane designation for the Vancouver International Airport (YVR), Great Canadian Way, Vancouver and Highway 99 to be located northbound on Garden City Road just north of Capstan Way; and
- flexible delineators to prevent illegal lane change over the gore area on the northbound approach of Garden City Road to Sea Island Way.

There are newly installed banners along Great Canadian Way from Sea Island Way to River Road, which strengthen the streetscape theme and identify the route to the Great Canadian Casino development. Opportunities exist for the Great Canadian Casino Inc. to partner with the City to design and install special banners to guide visitors to the waterfront through the City's established Street Banner Sponsorship Policy 7703.

The installation of the proposed new signs on Sea Island Way and Bridgeport Road will require the approval from the Ministry of Transportation, which will be sought by staff.

Financial Impact

The total cost of materials and installation for the proposed signage and traffic control enhancements (except for the overhead sign and new street name signs) as described in the report, is estimated at \$6,000, which would be funded from the 2004 Minor Capital Budget for Traffic Program.

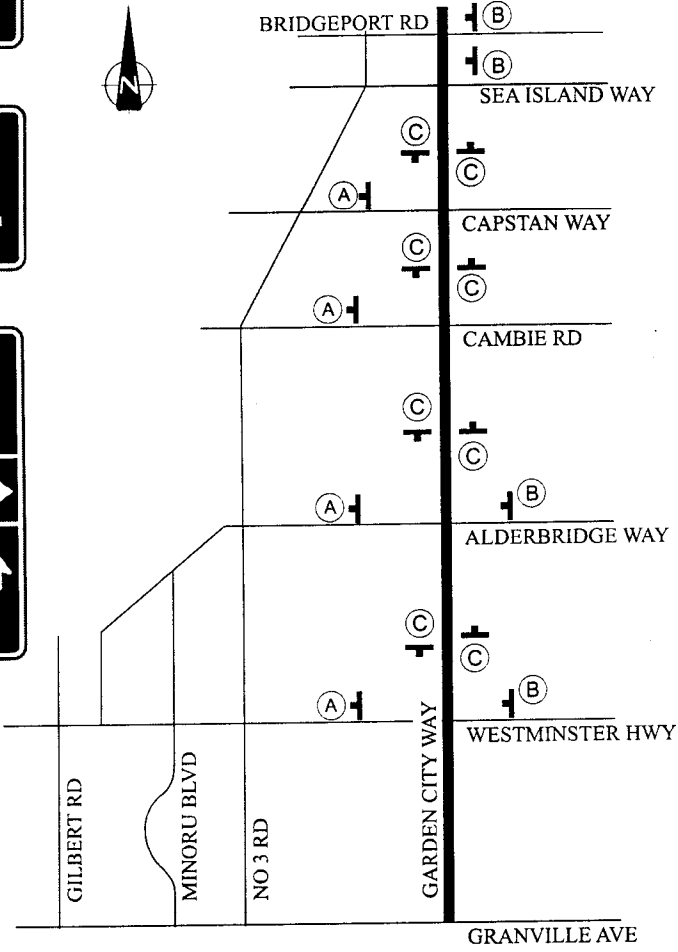
The total cost of materials and installation for the street name signs at the two signalized intersections (at Sea Island Way and at Bridgeport Road) as well as the overhead guide sign is estimated at \$12,000, which would be funded from the Garden City Road Phase 1 project.

Conclusion

The new Garden City Road extension (now renamed as Great Canadian Way) was found to be very successful in attracting traffic to use it, with most of the traffic coming from westbound Bridgeport Road, Costco and diversion of traffic from No. 3 Road. The proposed guide signage plan is a cost effective strategy to facilitate efficient vehicular circulation in the City Centre and address concerns of perceived congestion on No. 3 Road by encouraging motorists to use the alternative of Garden City Road to access the City Centre core area. Improved guide signs at the intersections with Great Canadian Way would further enhance this important gateway to the City. A new overhead guide sign and traffic lane delineators for northbound Garden City Road traffic approaching Sea Island Way are also proposed to address safety concerns related to sudden lane changes at this location.



Donna Chan, P.Eng.
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Proposed City Centre Road Signage Plan

