

BURNABY BICYCLE ADVISORY COMMITTEE

*HIS WORSHIP, THE MAYOR
AND COUNCILLORS*

RE: CYCLING ISSUES ON IMPERIAL STREET

RECOMMENDATION:

1. **THAT** Council forward the attached report to both divisions of the Traffic and Transportation Committee for information.

REPORT

The Burnaby Bicycle Advisory Committee, at its meeting held on 1999 May 27, received and adopted the attached report responding to a request to examine east/west cycling options in the south west portion of the city, specifically in relation to Imperial Street.

Respectfully submitted,

Mayor D. Drummond
Chair

Councillor D. Lawson,
Vice Chair

<p>:COPY - CITY MANAGER - DIRECTOR ENGINEERING - DIRECTOR PLANNING & BUILDING - DIRECTOR PARKS, RECREATION & CULTURAL SERVICES</p>
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TO: CHAIR AND MEMBERS
BICYCLE ADVISORY COMMITTEE

1999 May 17

FROM: DIRECTOR PLANNING AND BUILDING

SUBJECT: CYCLING ISSUES ON IMPERIAL STREET

PURPOSE: To respond to a request to examine east/west cycling options in the south west portion of the city, specifically in relation to Imperial Street.

RECOMMENDATION:

1. That a copy of this report be forwarded to both divisions of the Traffic and Transportation Committee for information.

R E P O R T

1.0 BACKGROUND

At the regular 1998 November 28 meeting of the Bicycle Advisory Committee (BAC), correspondence was received regarding the recent peak period parking restrictions on Imperial Street between Kingsway and Boundary Road and the subsequent negative impact upon the cycling environment. Additional correspondence regarding this issue was received at the 1999 January 28 meeting of the BAC. Members of the BAC have reviewed the situation in the field and, at the 1999 January 28 meeting, requested that a report be written exploring suggested options for a safe east/west cycling amenity through this area of the city.

2.0 CONTEXT

Imperial Street is identified in the Burnaby Transportation Plan as both a Primary Arterial and a Cycle Road. For both vehicle and bicycle traffic, Imperial Street offers a convenient link between Kingsway and Vancouver, bypassing the congested Metrotown core. West of the Metrotown area, Imperial is effectively the only means of reaching Vancouver as it passes between Central Park and the Oceanview Cemetery.

From a cyclist's perspective, Imperial Street is a desirable east-west route as it is generally flat, direct, and provides connections to 49th Avenue and the cyclist friendly environment of Vancouver's Ridgeway/Greenway on 45th Avenue. East of Kingsway, Imperial Street has one travel lane and one parking lane in either direction, lower traffic volumes (12,000 vehicles daily east of Kingsway versus 20,000 vehicles daily west of Kingsway). West of Patterson, Imperial has four lanes and provision for cyclists consisting of a wider (4.0m) curb lane. This report recognizes Imperial Street's value as a cycle road and specifically addresses the cycling environment on Imperial Street between Kingsway and Boundary Road where parking has been removed during peak periods in the peak direction and curb lane width issues have arisen.

Arising out of the minutes of the 1998 November 28 BAC meeting was a request for staff to pursue a designated bicycle route connecting both Imperial Street and the Metrotown area with Vancouver's Ridgeway/Greenway at Boundary and 45th Avenue, bypassing Central Park. Discussions with Parks staff indicate a desire to route cyclists generally around Central Park rather than through it, and as such are encouraging the development of an Urban Trail around the periphery of the park. Although this park related Urban Trail project would be pursued with the interdepartmental Urban Trail Committee and the Parks Commission and likely developed as a phased project, priority would be given to an Urban Trail generally along the Boundary Road frontage of Central Park connecting to Imperial Street to the south and to the existing Urban Trail associated with the BC Parkway to the north. This would provide a convenient connection to Vancouver's Ridgeway/Greenway at 45th Avenue. Such a project would be a timely and appropriate project related to the Imperial Street cycling environment as well as other local bicycle transportation issues.

3.0 IMPERIAL STREET CURRENT SITUATION

In response to vehicle demand, peak travel time/peak direction parking restrictions were placed upon Imperial between Kingsway and Patterson in 1998 February to essentially allow for two continuous travel lanes and improved signal coordination. The road surface was re-stripped between Patterson and Boundary to provide as wide a curb lane as possible in an attempt to meet Cycle Road Network requirements.

The existing curb to curb width of Imperial Street between Kingsway and Patterson is 14.0 metres where each side of Imperial is striped for a 3.0 to 3.3 metre wide centre lane and a 3.4 to 4.0 metre wide curb lane. Imperial west of Patterson to Boundary has been developed closer to full cycle road standards and curb lane width concerns are less pressing.

The curb to curb road width for a Primary Arterial Cycle Road is identified in the Burnaby Transportation Plan as 26.8 metres allowing for 3 moving lanes of traffic per direction and providing a 5.5 metre shared curb lane for cyclists. Thus the present lane widths are a compromise as the centre lane width is less than ideal for a truck route and the 4.0 metre curb lane represents a reduction in the minimum standard width provided for cyclists on a Cycle Road. This condition exposes the cyclist to a greater hazard and leaves the cyclist with little room for manoeuvrability in the case of an emergency. In addition, the substandard width requires drivers to exert more care in "sharing the road". Often, drivers are reluctant to adequately share as it means merging into centre lane traffic in order to pass a cyclist. The result is that vehicles are "squeezing" past cyclists without changing lanes, and creating an unsafe environment for both cyclists and drivers.

This condition does not support Policy 21 of the Burnaby Transportation Plan which states... "That a safe and convenient cycling facilities be provided as an alternative to the use of private vehicles". To address the above concerns, staff has reviewed a number of options as discussed in the following sections.

4.0 OPTIONS

4.1 Option A: Remove Parking Restrictions and Return Imperial to Pre-existing Condition

Allowing parking during peak periods would effectively reduce traffic flow to one lane and provide a safer cycling environment as moving cars would be restricted to one lane and travelling at a slower speed. Cyclists could comfortably ride in the now widened curb lane and coexist with parked cars providing vehicles are parked within the minimum distance of the curb as identified by the Motor Vehicle Act. This would effectively reduce the capacity of Imperial Street to that of a Major Collector Secondary and this is not recommended. It is noted that although parking on Imperial Street is allowed most of the time (and in this case is considered beneficial to cycling), it has little positive impact for cyclists. This is because the majority of cycle use on Imperial is of commuter nature whose travel demands coincide with commuter motorists and parking restrictions.

4.2 Option B: Widen Imperial Street to the Standard Identified in the Burnaby Transportation Plan

Widening of Imperial Street to standard would address the concerns raised in this report, however, widening would require significant road works, property acquisition including road dedication off Central Park, removal and replacement of the concrete curb and sidewalk on one or both sides of Imperial, as well as relocating above ground utilities. The cost associated with this option would be prohibitive at this time, and must be considered as a very long term option if feasible at all.

4.3 Option C: Bike Lane Striping

Striping a bike lane and providing signage indicating bike use would help define the cyclist's realm and further legitimize cyclists' right to the road. Experimental applications of narrow lanes in Toronto on roads of a similar nature to Imperial suggests that such bike lanes may be an effective means of increasing safety, short of physically separating the cyclist from the roadway.

However, the resultant one metre wide cycle lane (which on part of the route would include the gutter pan) is woefully shy of accepted national design standards (which in this case would require a bike lane width of 1.5m minimum to 2.5m preferred depending on interpretation). Similarly the vehicle lane adjacent to the bike route would be 3 metres or less in width which again is significantly substandard. This raises concerns for traffic safety. Until this approach now being tested in Toronto is proven out and becomes more widely accepted, there would be a safety concern and possible liability exposure to the City in implementing this option at this time. Designating a bike lane could also create a false impression of safety thus encouraging less experienced recreational cyclists to use the route.

4.4 Option D: Alternative Cycle Road on Victory Street

Providing an Alternative Cycle Road is a strategy used in Burnaby and Vancouver (eg. Adanac/Francis Bike Route, North/South Bike Route). Alternative Cycle Roads are well utilized when they are in close proximity to the original or desired alignment. In this particular location the only alternative (Victory Street) would require the user to travel 400 metres to get to this route and another 400 metres to return to Imperial in order to utilize existing crossings at either Kingsway or Boundary on Imperial. A case could be made that the Frances - Union Bike Route is a successful alternative cycle road alignment offset a similar distance from the original desire line (Hastings Street), however, it connects directly to the Adanac Bike Route in Vancouver and does not "double back" on itself as does the more cautious route on Victory Street. In addition the neighbourhood through which Victory Street traverses has been "calmed" through use of alternating stop control. To develop Victory as an Alternative Cycle Road would require extensive consultation and alternate traffic calming strategies in order to integrate "through" cycling but not "through" vehicular traffic.

4.5 Option E: Improved Driver Awareness Signage

Alerting motorists to the presence of cyclists would be seen as a positive step in addressing the concerns raised in this report. Engineering staff have placed standard (diamond) shaped warning signs showing the bicycle silhouette logo on a background of high intensity yellow sheeting. The sign sheeting material is a new development and offers improved daytime visibility due to its fluorescent quality. A "share the road" tab sign has been placed under the warning signs. Initial installation will be four signs, two per direction of travel. Westbound signs would be generally located between Kingsway and MacPherson, and just west of Central Boulevard. Eastbound signs would be located just east of Patterson and east of Nelson. Final location was determined by Engineering after field review.

5.0 EVALUATION OF OPTIONS

Option A is not considered a practical solution as traffic volumes on Imperial prior to introduction of parking restrictions were high enough to warrant removal of parking in one direction during peak periods. Also, volumes are only expected to increase over time.

Option B is not considered feasible due to the high cost of rebuilding a portion of the road and sidewalk. Additional costs may be incurred in the form of property acquisition and infrastructure service relocation. Feasibility is also subject to road dedication from Central Park.

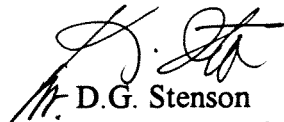
Option C could be considered in the future although it is substandard in terms of lane widths for cyclists and pedestrians, and safety issues remain a concern. The outcome of the Toronto experience will be useful in this regard.

Option D may be a feasible solution however there is concern regarding its usefulness to the cycling public due to the Alternate Cycle Road being offset 400 metres from Imperial.

Option E, the recommended option, is both feasible and implementable, and is of minimal expenditure. The added signing will be beneficial both locally on Imperial and as a wider consciousness raising message for motorists. If monitoring confirms, more signs will be deployed elsewhere.

Staff have installed the signs pertaining to Option E and will monitor its effectiveness. Option C and D will be further explored in a study of cyclist travel needs in south Burnaby bearing in mind the results of the Toronto study.

This is for the information of the Bicycle Advisory Committee.


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cc: Director Engineering - Traffic

Director Parks, Recreation and Cultural Services