



## ASSESSMENT RIDE: CORNWALL – POINT GREY CORRIDOR

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November 9, 2012



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## EXECUTIVE SUMMARY

A group of HUB Vancouver/UBC advisory committee volunteers initiated an assessment ride, to assess issues faced by people riding bicycles on the Cornwall Avenue – Point Grey Road. The group evaluated accessibility, to and from the corridor, safety concerns for cyclists, opportunities for safer cycling facilities, and possible conflicts that could arise between bicyclists and the other road users. The volunteers unanimously agreed that the Cornwall – Point Grey Corridor is currently unsuitable to accommodate cyclists of all ages and cycling abilities.

However, the route crosses numerous bike routes, which provide an opportunity for the city to develop a prime cycling route that will connect to Vancouver's extensive bicycle network. This report presents in detail, intersection by intersection, the issues faced by bicyclists, and the recommendations to make the corridor more attractive to bicycle transportation.

## MAIN ISSUES:

The issues most often identified by the assessors:

- Possibility of motor vehicle, pedestrian and bicycle conflicts where no physical separation exists to prevent collision between different modes of transportation
- Intersection design does not accommodate bicyclist safely and limits their access to adjacent destination, at time, forcing them to execute various dangerous manoeuvres to continue on their intended path.
- The signage for cyclists is deficient; consequently, other modes of transportation are unaware of bicycle presence on the route; likewise, cyclists are unaware of potential hazards
- The current bicycle route does not provide a smooth connection between Burrard Bridge and Jericho Park; the route passes through parking lots, pedestrian zones, and forces cyclists to climb unnecessary hills.

## RECOMMENDATIONS:

These issues represent a significant barrier to the development of a bicycle friendly corridor, which cyclists of all ages and cycling abilities (AAA) will safely use in large numbers. Consequently, HUB recommends the following improvements for the safety of people travelling on bicycles:

- Build a two-way separated bike lane on the north side of Cornwall Avenue between Burrard Street Bridge and MacDonald Street; as well, on Point Grey Road between Alma and Jericho Park



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- Add an eastbound one-way separated bike lane on the south side of Cornwall Avenue between Cypress Street and Burrard Street (a seamless connection to the Burrard Bridge is recommended but not included in this report)
- Change Point Grey Road between MacDonald and Alma to a local street with traffic calming measures to interrupt the continuous flow of through traffic
- Modify intersections to add bicycle safety infrastructure such as:
  - Crosswalk at Chestnut Street
  - Bicycle boxes at Cypress Street and Maple Street
  - Advanced bicycle lights at Cypress Street
- Mitigate cyclist and pedestrian conflicts by creating a physical separation in Kitsilano Park
- Improve signage to show that cyclists are road users with internationally recognized symbols:
  - Green carpets at all conflict points like bike boxes, driveways and intersections
  - Warn other road users of the presence of cyclists wherever bicycles interact with other modes of transportation (motor vehicle and pedestrians)
  - Warn cyclists of potential hazards such as pedestrian interface and upcoming driveways
- Move bus-stops to mitigate interference with bicyclists; as well, bus stops should be located outside the bike lanes in such a way that the buses don't get in the cyclists' lane to pick up and drop off passengers.

HUB suggests these recommendations will have little effect to businesses and available parking; and should be implemented in stages in which the easiest and most inexpensive measures may take effect immediately. In addition, we suggest starting the implementation process for the larger and more impactful changes as quickly as possible, so the Cornwall – Point Grey corridor will soon become the next Vancouver bicycle route safe to use by cyclists of all ages and cycling abilities.



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## ASSESSMENT RIDE CORNWALL – POINT GREY CORRIDOR

### INTRODUCTION

On October 17, 2012 a group of volunteers from HUB Vancouver/UBC Committee (for this report, referred to as “HUB”), and Point Grey residents performed an assessment ride along Cornwall Avenue and Point Grey Road between Burrard Street and Jericho Park. The group assessed the route for its safety and accessibility issues, and took notes of recommendations to improve cyclist utilization of the corridor.

This corridor was important for HUB to assess because a May 2012 survey of Vancouver HUB contacts revealed that the highest priority routing for a new protected bike route in the city was the Cornwall/Point Grey route.

### ACKNOWLEDGEMENTS

The author wishes to thank several people who were instrumental to the writing of this report. Clark Nikolai co-organized the event and contributed to the review of this document; Lisa Slakov from HUB provided valuable background information and contributed to the review of the document. Ken Ohrn provided the majority of the pictures. Assessment ride participants, Richard Campbell, Peter Ladner, and Tom Nichols all have provided important input to this document.

### BACKGROUND

Cornwall Street and Point Grey Road form an east-west corridor, which links downtown Vancouver to Jericho Beach, via the Burrard Street Bridge bikeway. The route services numerous community services and leisure destinations. Elementary schools, daycare centers, health care facilities, and public parks are scattered along this corridor. The best-known destinations on this route are Kitsilano Beach and Jericho Beach, which attract thousands of visitors annually. A consequence of the popularity of the area is the amount of traffic using this route on a daily basis.

Up to 3500 cars per day travel either direction along the 3700 block of Point Grey Road (1); conversely, up to 30,000 cars per day utilize either directions of 2200 block of Cornwall Avenue (2). The automobile traffic utilization of the area represents a challenge for people who want to cycle this corridor. A survey conducted by HUB in May 2012 revealed that existing cyclists identify this route as the top priority route for separated lanes (3). In addition, City of Vancouver staff brought this route to a recent Active Transportation Policy Council meeting as being one of the first to be considered as a route designed for cyclists of All Ages and Abilities (AAA) (4).



The former Vancouver Area Cycling Coalition (VACC now HUB) did an assessment of the area in 2004. At that time, VACC’s recommendation was for a separate bike lane on the north side of the corridor, which would start at Jericho Beach and terminate at Kitsilano Beach. Other recommendations included an improved access to Jericho Beach Park with the creation of “No Parking” zones at the entrance of the paths; a paved, separated path through Jericho Beach Park; and, improvement to the 4<sup>th</sup> Avenue and S.W. Marine Drive Seaside Bypass route with the establishment and maintenance of clean bike lanes (3).

### THE CORNWALL – POINT GREY ROUTE

#### CORNWALL STREET

Cornwall Street is an arterial street<sup>1</sup>, which runs from Burrard Street to Macdonald Street. Between the 1800 block and 2100 block, the cityscape is composed of small businesses, an elementary school, a daycare center, and medium density housing. Kitsilano Beach Park occupies the North side of 2100, 2200, and 2300 block; small businesses, pubs, restaurants, and medium density housing reside in the south side. The remaining stretch, to MacDonald, is mainly residential with the exception of a private hospital.

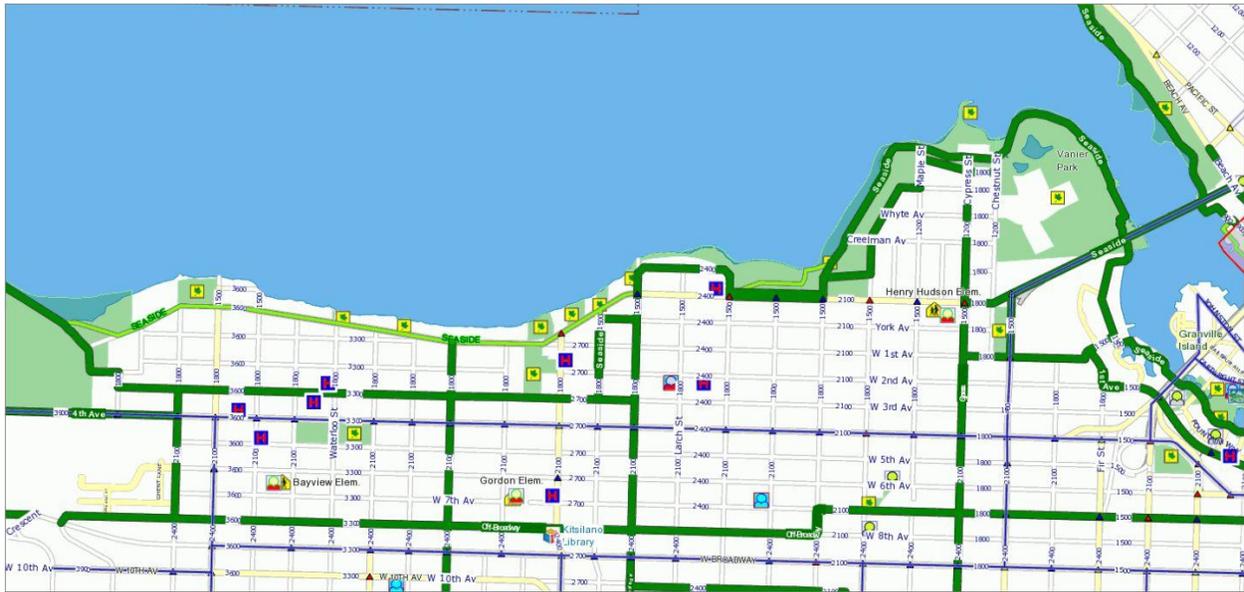
Westbound cyclists connect to Cornwall Street from either the Burrard Street Bridge or Cypress Street. Currently, the city’s bicycle network diverts the westbound traffic onto Cypress Street and there is no space dedicated to bicycle transportation on the main arterial. The Eastbound-cycling route enters the area from the north-south Trafalgar bike route and diverts away from Cornwall via Point Grey Road and Kitsilano Beach Park.

#### POINT GREY ROAD

Point Grey Road is a secondary arterial from MacDonald to the 3700 block, and then becomes a residential street. The cityscape is consistently residential, scattered with small parks and a marina. There is currently no planned cycling facility on Point Grey Road. Instead, the bike route network goes along West 3<sup>rd</sup> Avenue; although, Point Grey road is used by bicyclists. Figure 1 indicates the cycling facilities along the Cornwall – Point Grey Corridor.

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<sup>1</sup> Urban streets are designated in three major categories: Arterial, Collector, and Local. Arterials are designed to accommodate the greatest amount of traffic while local streets the least.



MAP 1 VANCOUVER BIKE NETWORK ALONG CORNWALL - POINT GREY. THE DARK GREEN LINES REPRESENT THE FORMAL BICYCLE NETWORK AND THE LIGHT GREEN LINE ALONG POINT GREY ROAD REPRESENTS A GREENWAY. (SOURCE: VANMAP 2012)

## OCTOBER 2012 ASSESSMENT RIDE

The purpose of an assessment ride along the Cornwall – Point Grey corridor is to provide the City of Vancouver a bicyclist’s perspective on the route; as well, the group wishes to provide recommendations on how the City may make this corridor welcome to bicyclists of all ages and abilities. HUB volunteers assessed accessibility, hazards, and opportunities along the route. The participants documented the ride with notes and photos. We used a modified SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis to organize our information.

### ASSESSMENT COMPONENTS

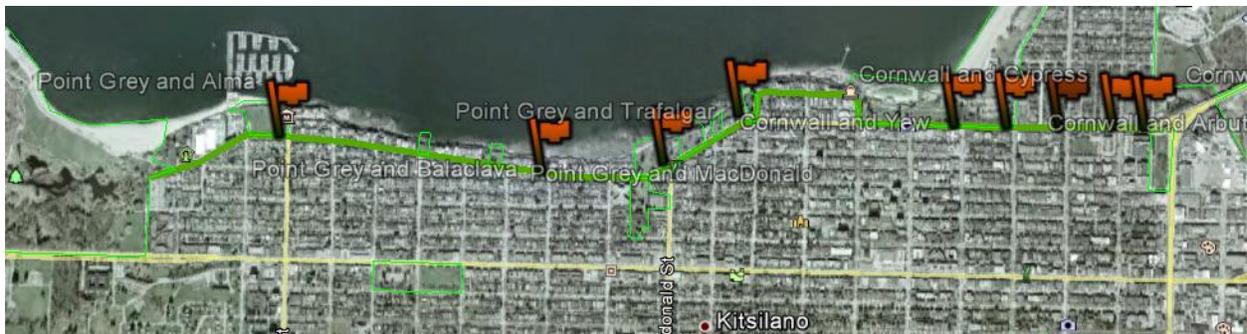
1. **Accessibility:** Identify the ease of accessibility to and from the route. This includes intersections, parks, businesses, and other destination. Assessors should look for some examples of easy accesses as well as difficult accesses.
2. **Safety:** Identify cyclists’ safety concerns such as vehicular traffic, bus stops, pedestrian traffic, visibility, road surface, street design, and absence/presence of cycling facilities (bike lane, traffic light, bike box)
3. **Opportunity:** Visualize and record improvement opportunities to the cycling infrastructure.



## PROCEDURE

The ride leaders, Clark Nikolai and Sylvain Martel, provided the assessment group with background information and assessment procedures. The group was composed of cyclists of various ages and cycling abilities; some members reside in the area, some use the route every day for their commute to work and some use it at their leisure.

The assessment covered Cornwall Avenue, from Chestnut and proceeded along Point Grey Road. The group stopped at intersections and locations of concern along the route to discuss safety, accessibility, opportunities, and possible improvements to the bicycle facilities. Figure 1 illustrates the route and the stops along the Cornwall – Point Grey Corridor.



MAP 2 ASSESSMENT STOP LOCATIONS

## RESULTS

The group came to a consensus that cyclists need to be isolated from car and pedestrian traffic starting where the Burrard Street Bridge separated bike lane merges onto Cornwall Avenue, ending at MacDonald Street and Point Grey Road. The ideal solution is a two-way cycle path on the north side of Cornwall, and a single lane eastbound on the south side, between Cypress and Burrard. The proposed path will be located immediately beside the sidewalks. Bus stops and car parking will be located between the moving traffic and the bike lanes, which will provide a buffer between moving traffic and bicycle traffic.

West of MacDonal, HUB supports a group of Point Grey residents<sup>2</sup>, who suggest the elimination of through traffic between MacDonal and Alma. However, HUB recommends additional bicycle-permeable traffic calming measures, along Point Grey Road, to break the continuous flow of traffic between MacDonal and Alma. In addition, a two-way separated bike lane, west of Alma Street, on the north side of Point Grey Road would provide a safe connection between Alma Street and Jericho Park.

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<sup>2</sup> The group of residents petitioned the city's Transportation Plan Team on October 9, 2012 to request a re-designation of Point Grey Road to a local street and block through traffic between MacDonal Street and Alma Street. (Courtesy Peter Ladner)



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These recommendations will necessitate little loss in parking space for commercial business; will provide a safe connection between Vancouver downtown and Jericho Beach, and other neighbourhoods. The corridor will significantly improve the users' experience along this scenic route. In addition, the Cornwall - Point Grey Route will promote cycling to UBC by providing a connection to Downtown, False Creek, and Kitsilano which doesn't require climbing the numerous Kitsilano hills<sup>3</sup>. In addition, some assessors suggested a long-term solution of a seawall greenway (bicycle-pedestrian split) extension coming up through Volunteer Park, where West 1<sup>st</sup> Avenue meets Point Grey Road.

The route will not only improve safety for cyclists along the route but will do so for motor vehicles and pedestrians as well. The cycling infrastructure and other traffic calming measures will slow vehicular traffic, providing a better experience for pedestrians and will remove cyclist traffic from sidewalks. The following sections describe in detail the findings during the assessment ride.



**IMAGE 1 BUSINESSES ALONG CORNWALL AVENUE**

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<sup>3</sup> The current cycling network directs UBC-bound cyclists through steep, avoidable up-and-down hills, while the Cornwall-Point Grey route follows relatively flat terrain to Spanish Banks



## 1. CORNWALL AVENUE AND CHESTNUT STREET



IMAGE 2 CORNWALL/CHESTNUT AERIAL AND STREET VIEW

Chestnut Street is the first intersection coming off Burrard Street Bridge. The seaside route turns on Chestnut Street but a large number of cyclists travel through on Cornwall. The group observed numerous safety and accessibility issues at this intersection.

### ISSUES:

- Dangerous multi modal transportation interface: the intersection does not safely accommodate cars and cyclists turning right and unsuspecting pedestrians may collide with right turning traffic
- Bicyclists and pedestrians use dangerous tactics to reach the south side of Cornwall to connect onto the Burrard Street Bridge, Sea Forth Park, and adjacent businesses. Some strategies include jaywalking and travelling against traffic to either access directly or use the Burrard crosswalk.

### RECOMMENDATIONS:

- Build a bicycle/pedestrian crossing path that will provide a safe north-south connection to the self-propelled travellers.
- Re-design the northeast corner of the intersection with the possible addition of a sidewalk, traffic light with right turn restriction on red light, colorized bicycle path, and appropriate signage to warn all users of the possible hazardous situation.



## 2. CORNWALL AVENUE AND CYPRESS STREET



IMAGE 3 CORNWALL/CYPRESS AERIAL AND STREET VIEW

A large number of bicycles, automobiles, buses, and pedestrians use this intersection. It is a connection node for the north-south Cypress bike route, the beginning of a commercial area, and an elementary school zone. Farther west, the commercial establishments attract short-term patrons, which creates intensive car parking activity. This intersection and stretch of the road can challenge the experienced cyclists and is a major barrier most bicyclists.

### ISSUES:

- Numerous westbound cyclists were observed using several different to turn left onto Cypress; none of these manoeuvres is very safe.
- A large number of pedestrians, cyclists, and motor vehicles travel through or turn at this intersection, yet it accommodates mainly thoroughfare motor vehicle traffic.
- Bus stops on both sides of Cornwall at this intersection provide additional hazard for both east and west bound bicycle traffic.

### RECOMMENDATIONS:

- Designate bicycle boxes for all direction
- Establish specific bike traffic lights with an advanced turning signal for bicycles travelling on Cornwall
- Re-locate the bus stop located on the southeast side of the intersection, to the west side; this will reduce the bus/cyclists interface on the approach to the bridge.
- Protect cyclists from frequent parking by running the cycle path beside the sidewalk, and warning cyclists of frequent pedestrians crossing the path.
- Install bike corrals on one of the side streets to make businesses accessible to bike travellers as well as to avoid pedestrian-cyclist conflicts on the narrow sidewalks.



### 3. CORNWALL AVENUE AND MAPLE STREET



IMAGE 4 CORNWALL/MAPLE AERIAL AND STREET VIEW

Cornwall Avenue narrows down on the west side of Maple Street. This reduction of the roadway creates a bottleneck on the sidewalk area on the north side of Cornwall Avenue. Businesses and an elementary school occupy the north and southeast side of the intersection respectively while mid density housing is on both the north and south of the west side of the intersection.

#### ISSUES:

- A bus stop located on the northwest side of the intersection takes up most of the available space and does not allow any manoeuvring room for cyclists; in addition, cyclists trying to escape the roadway on the sidewalk create a dangerous situation for themselves and the foot traffic, in a very confined space.

#### RECOMMENDATIONS:

- Re-locate the bus stop to either Laburnum Street, or east of the intersection (or remove it).
- Create bike boxes on Maple Street for both northbound and southbound directions.
- Consider vegetation removal to maximize the city's right-of-way.
- Remove car parking on the south side of Cornwall Avenue to create further space



#### 4. CORNWALL AVENUE AND ARBUTUS STREET

Arbutus Street is the eastern boundary of Kitsilano Park. The current seaside bike route goes through the parking lot north of the intersection and meanders its way through the park, sometimes sharing the path with pedestrians.



IMAGE 5 CORNWALL/ARBUTUS AERIAL VIEW

#### RECOMMENDATIONS:

- Re-direct the separated bike path in the north side (right) of the sidewalk.
- Provide a distinct separation from the pedestrian traffic and provide appropriate signage to help users utilize the right path (cycle path could be green asphalt)



IMAGE 6 KITSILANO PARK AERIAL VIEW



5. KITSILANO PARK – CORNWALL AVENUE AND YEW STREET



IMAGE 7 KITSILANO PARK

The park is popular all year and sees a great number of visitors on nice days. The current seaside bike route passes through the parking lot to Yew Street, heads south to Cornwall and follows along Cornwall on a shared bike/pedestrian path to Balsam Street.

ISSUES:

- Current bicycle route interfaces with heavy pedestrian traffic and cars.
- Possible conflicts between cyclists and pedestrians at the Cornwall-Yew crosswalk light as pedestrians wait for their lights on the bicycle path.
- Bicycles currently cut through the grassy area on the west end of the park to connect to Point Grey Road, which represent safety issues to other park users.

RECOMMENDATIONS:

- Create a distinct physical separation between cyclists and pedestrians along the park; complement with appropriate signage (cycle path could be painted green).
- Re-organize the Cornwall-Yew intersection with the crosswalk light north of the bike path, bicycle specific traffic lights.
- Provide a bicycle connection to Yew Street southbound.
- Add a bike path to follow the existing “desire-line” path in the grass to connect to Point Grey Road on the west end of the park.
- Continue the separated bike lanes on Cornwall Avenue, west of Balsam Street.



## 6. CORNWALL AVENUE (POINT GREY ROAD) AND TRAFALGAR



IMAGE 8 CORNWALL/TRAFALGAR AERIAL AND STREET VIEWS

The intersection consists of a through road crossing Cornwall and a merging of Point Grey Road with Cornwall Avenue on the northwest side of the intersection. From this point on, driveways connect directly onto Point Grey Road.

### ISSUES:

- Driveways would cross the separated bike lanes

### RECOMMENDATIONS

- Re-direct the bike lane behind the bus stop and merge with Point Grey Road.
- Organize the intersection and subsequent bike lanes to accommodate on street parking and driveways. Special signage should be used to warn cyclists and motorists of the change (a special painted pattern should be used in front of driveways to indicate the crossings)



## 7. POINT GREY ROAD BETWEEN MACDONALD STREET AND ALMA STREET

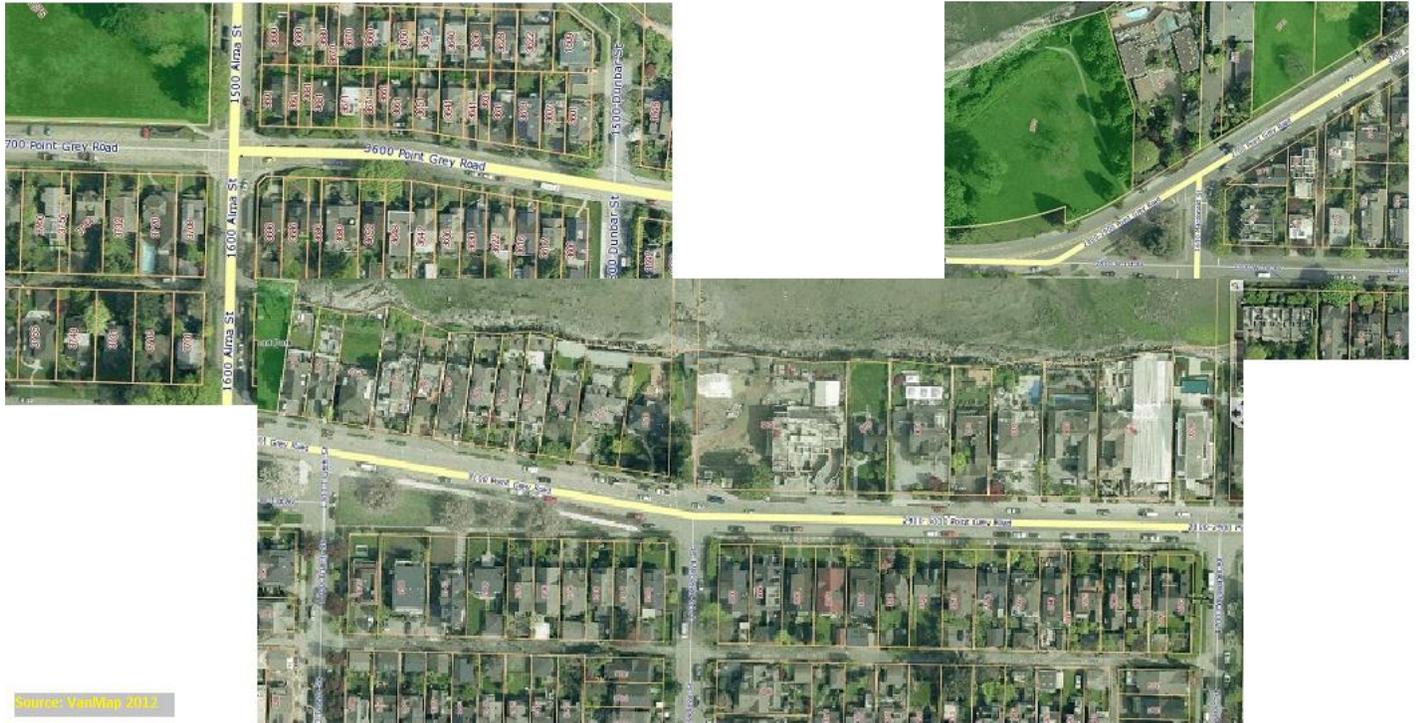


IMAGE 9 POINT GREY ROAD BETWEEN MACDONALD AND ALMA AERIAL VIEW

A dedicated group of Point Grey residents are advocating for the closure of Point Grey Road to through motor vehicle traffic along this stretch. The proposed change would re-classify this stretch as a local street instead of a secondary arterial and would not necessitate a separated bikeway on this stretch of the road. Residents would use north-south streets to access their residence. The road currently connects to the bicycle network from Cornwall Avenue to the east, Balaclava to the north, and Jericho Park to the west. HUB supports the residents' resolution with additional bicycle specific recommendations.

### ISSUES:

- A continuous roadway between Macdonald Street and Alma Street may still have vehicles driving above the 30 km/h limit.
- Part of the traffic will be re-directed to Balaclava Street, which is the only current north-south connection to Point Grey Road; an increase in car traffic on this street will threaten the cyclists' safety as the street is too narrow to accommodate bicycles and increased vehicular traffic.
- The combination of roadside parking and driveway access will reduce visibility for both bicyclists and drivers pulling out of their driveways.



## RECOMMENDATIONS:

- Break the continuous flow of traffic to make it impossible to drive directly between MacDonald and Alma. Suggested traffic-calming measures include opposing one-way lane and the extension of parks onto the roadway, allowing access only to cyclists and pedestrians.
- Block the north end of Balaclava to car traffic with a bicycle-permeable barrier; this will restrict car traffic exclusively to the residents of Balaclava.
- Limit roadside parking to a safe distance from driveways; complementary measures may include green carpets in front of the driveways to warn cyclists and motorists.

## 8. POINT GREY ROAD AND ALMA STREET

Alma Street has been identified as a possible connection to the bike network. HUB recommends the creation of colorized bike lanes that will create a north-south connection with West 16<sup>th</sup> Avenue. The bike lanes will connect to well-used bicycle routes such as “Off-Broadway and 16<sup>th</sup> Avenue with Point Grey Road.

## 9. POINT GREY ROAD BETWEEN ALMA STREET AND JERICO PARK



IMAGE 10 POINT GREY ROAD BETWEEN ALMA AND JERICO PARK AERIAL AND STREET VIEW

This stretch covers the 3700 and 3800 blocks of Point Grey Road. A tennis club, a marina and a clubhouse occupy most of the north side of the road. In addition, Jericho Park parking lot is located at the end of Point Grey Road. Roadside parking is currently allowed on both sides of the local street.



## ASSESSMENT RIDE: CORNWALL – POINT GREY CORRIDOR

### ISSUES

- Heavy car traffic is accessing the many facilities in the area.
- Roadside parking and narrow roadways do not meet bicycle safety requirements

### RECOMMENDATIONS

- Build a two-way separated bike lane on the north side of Point Grey Road beside the sidewalk.
- Organize roadside parking on the south side of Point Grey Road
- Continue the separated bike lane through to the Jericho Park access trail.

### CONCLUSION

The Cornwall – Point Grey corridor is an important link between some of the most scenic destinations in Vancouver. This report presents comprehensive recommendations to help the city understand the bicycle users' perspective. HUB volunteers assessed the route to the best of their knowledge, and they believe the development of cyclist-friendly infrastructure will increase the number of bicyclists using this route for leisure, commute and errands. HUB believes that the potential growth in cyclist use on an AAA facility on this route is significant.

Additionally, the increase in the use of active transportation will decrease the need for motor vehicles, and increase the benefits related to self-propelled transportation such as health and environmental conservation. Indeed, we believe the investment made to improve bicycle usage will diminish the need to increase bus and motor vehicle use rates in the area.

Some of the recommendations in this report are simple and inexpensive to implement and we urge the City to take immediate action to improve cycling along this corridor. In doing so, the City will receive instant benefits, which will continue to increase over time.



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