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Dear Mike

Re: HUB Cycling Recommendations Regarding Connections to the Arbutus Greenway

This document summarizes an Assessment Ride held by HUB Cycling in October 2017, and subsequent observations, and is focused on intersections along the Greenway.

HUB Cycling is a charitable not-for-profit that works to make cycling better through education, action, and events. We strive to encourage more people of all ages and abilities to cycling as this leads to healthier, happier, more connected communities. The provision of safe and convenient routes, such as the Arbutus Greenway (AG), is a crucial step towards make cycling an attractive choice for all.

Congratulations

HUB Cycling congratulates the City of Vancouver on the progress made on the Arbutus Greenway project thus far and offers this document as an update to our *“Side by Side”* July 2016 Report and our *“Recommendations for Improvements to the Arbutus Greenway”* May 2017 Report.

This report’s focus is on the 27 street intersections that interrupt the temporary path. The investigation included a group ride in October 2017 plus many subsequent individual rides updating progress.

Connections

The Arbutus Greenway connects people to people and communities to communities. The Arbutus Greenway is both a social connector and an active transportation corridor.

The October 2017 HUB Cycling ride focused on the physical connections at the ends to other facilities as well to intermediate places along the nine-kilometer length of the Greenway.

The temporary path has proved to be very successful even in its evolving, incomplete state. The focus of this report is to look at the future while pointing out features that could be modified for improved safety of

the many present-day users. The Arbutus Greenway will be built in sections over many years once the final design is reviewed and approved by the citizens of the Vancouver.

The temporary path was a bold and helpful installation. Firstly, the path enabled the immediate use of this very valuable resource that the City of Vancouver recently purchased from CPR. Secondly, it has been a living laboratory for testing out very preliminary design ideas that the community suggested. Thirdly, it showed a wide cross-section of the population what a jewel the Arbutus Greenway is and allowed them to have firsthand experience on it. Today, a large segment of the population of Vancouver can much better see the potential and are better able to witness and understand other users. When the final draft is delivered to the public a diverse group of citizens will be able to contribute to the final design in a more meaningful way.

This HUB Cycling contribution to the evolving design of the Arbutus Greenway is mainly on behalf of the cycling community. The Arbutus Greenway will offer many functions from the casual cyclist to the daily commuter. The Arbutus Greenway will be designed as an AAA (All Ages and Abilities) facility. A key design tenet of the temporary and finished Arbutus Greenway is that all users must both feel safe and be safe.

The modest grade of the Arbutus Greenway from the Fraser River to False Creek, with the off-street path configuration offering the safest riding environment by far, will encourage more people to walk and cycle to work. Once the connections are constructed and improved the number of riders commuting will increase dramatically. It will give an alternative commuting route and take motor vehicles off our congested roads. Reduced private vehicles and lower transit usage on the roads will free up valuable road space for other transportation users.

Intersections

The analysis below is framed around the street intersections crossed by the Greenway plus the starting and ending intersections. The intersections, “Connecting the Dashes,” are an immediate design priority. Also, each section **highlights** direct connections (existing and potential) to other city bicycle routes.

Fir Street

The present design ends on an oblique angle to Fir Street, which is dangerous for all users. The permanent cycling path could be connected to Sixth Avenue or realigned in the future to connect to the Granville Bridge and the proposed Granville Bridge Greenway to downtown.

Potential bike connections: Sixth Avenue

Pine St

Pine Street should be the primary connection to the Seaside Greenway Bypass on 1st Ave, with protected connections to the York Bikeway, Granville Island, and the South False Creek Seaside Greenway. Pine Street (and Pine Crescent) present an opportunity for an Arbutus Bypass route that could be the commuters’ parallel to the Arbutus Greenway from First Avenue to 33rd Avenue. HUB Cycling has previously written and submitted a report to the City of Vancouver on creation of Pine as a cycling route from 16th Avenue to 1st Avenue. Wayfinding signage is required as soon as possible to direct people on bikes to the York Bikeway, Granville Island and the South False Creek Seaside Greenway.

Potential bike connections: Granville Island, 1st Ave Seaside Bypass and South False Creek Greenway

Burrard St

The City of Vancouver has constructed a protected Burrard Street bikeway from the Burrard Bridge upgrade to 8th Avenue on the west side. This bike lane connects to the Arbutus Greenway and has been used as an alternative to the Cyprus Street bikeway.

The surface Burrard Street crossing has been installed and is used by walkers, wheelchairs users, and cyclists. So far HUB has not heard any concerns about the safe operation of this crossing.

Existing bike connections: Burrard Street bikeway

Cyprus St

Cyprus Street is a designated bikeway with restricted access for motor vehicles. Wayfinding signage is required at this intersection of bikeways.

Existing bike connections: Cypress Street bikeway

Maple St

Maple Street is a local residential street that needs a stop sign to warn motor vehicles to stop at the AG.

6th Ave

The AG crosses 6th Ave at an oblique angle. A no-parking zone is required to improve the sightlines. This crossing could be further improved in the final design by installing curb bulges on the four corners of the crossing, to reduce the crossing distances.

7th Ave

The 7th Avenue bikeway is an important east-west cycling route. The AG crosses 7th Avenue at an oblique angle. A no-parking zone is required to improve the sightlines. A section of 7th Avenue could be blocked off from the AG to Arbutus for motor vehicles and the Delamont Park could be enlarged south. Wayfinding signage is required at this intersection of bikeways.

Existing bike connections: 7th Avenue bikeway

8th Ave

8th Avenue is a secondary road that has limited through traffic. A no-parking zone is required to improve the sightlines. This crossing could be further improved in the final design by installing curb bulges on the four corners of the crossing.

Broadway

The design of the Broadway Subway station has not been finalized. The crossing should be a combination of a surface crossing and integration with the station infrastructure. Once the present proposed surface crossing is complete and operational the CoV can use this intersection to monitor the interactions between all users.

10th Ave

10th Avenue is a very popular east-west cycling route. The low volume of motor vehicles in this area reduces the conflicts with cyclists and pedestrians but the crossing could be improved with such tools as raised surface and pavement colouring. Vehicle volumes on 10th will likely increase during construction of the subway station.

Existing bike connections: 10th Avenue bikeway

11th Ave

Low volume motor vehicle traffic but it will need stronger visual clues to cue the motorist that it is an active crossing and to yield to users on the Arbutus Greenway.

12th Ave

There is a high volume of motor vehicle traffic, requiring a direct signal-controlled crossing. This intersection will need strong visual clues for motorists to be fully aware of the Arbutus Greenway crossing.

13th Ave

Low volume motor vehicle traffic but it will need stronger visual clues for motorists that it is an active crossing and to yield to users on the Arbutus Greenway.

14th Ave

Low volume motor vehicle traffic but it will need stronger visual clues for motorists that it is an active crossing and to yield to users on the Arbutus Greenway.

15th Ave

Low volume motor vehicle traffic but it will need stronger visual clues for motorists that it is an active crossing and to yield to users on the Arbutus Greenway.

16th Ave

High volume motor vehicle traffic that has an oblique, signal-controlled crossing. The present lay out is not satisfactory and many conflicts have been reported. As the Arbutus Greenway increases in popularity the present layout will fail to deliver a safe crossing for all users. We recommend that a direct signalized crossing be installed during the temporary phase of the 16th Ave crossing. Will need strong visual clues for motorists to be fully aware of the Arbutus Greenway crossing.

King Edward

High volume motor vehicle traffic that has an oblique signal-controlled crossing. The present lay out is not satisfactory and many conflicts have been reported. As the Arbutus Greenway increases in popularity the present layout will fail to deliver a safe crossing for all users. We recommend that this intersection receive further study to address the safety issues. Will need strong visual clues for motorists to be fully aware of the Arbutus Greenway crossing.

Nanton Ave

Nanton is a local street bikeway and the low volume of motor vehicles in this area reduces the conflicts with cyclists and pedestrians. The roundabout in the adjacent intersection is a minor distraction for motorists. The Arbutus Greenway crossing could be improved with such tools as raised surface and pavement colouring.

Existing bike connections: Nanton local bikeway

33rd Ave

33rd Avenue is an arterial road with a steep grade that encourages west-bound motorists to speed up towards the crossing. This crossing will need a traffic control device to allow the safe passage of all users of the Arbutus Greenway. Some form of speed control will be needed to ensure motorists have sufficient time to stop.

Existing bike connections: Pine Crescent as a commuter route to Burrard Bridge and other east-west cycling routes

37th Ave

The Arbutus Greenway has been angled towards the east crosswalk of West Blvd. The vehicle traffic at this intersection is shared with the 37th Ridgeway Greenway, a well-used cross-town east-west cycling route. A large percentage of 37th west bound vehicle traffic comes from East Blvd and a high percentage of those vehicles turn right at Arbutus. Cyclists heading south on the Arbutus Greenway are vulnerable because the vehicle drivers are looking south to find a gap to turn right. We recommend that the East-West Blvd and newly acquired Arbutus Greenway lands be reconfigured. Our principle is that the Arbutus greenway should go at right angles when crossing a street.

Existing bike connections: Ridgeway Greenway

41st Ave

This is the most challenging crossing on the whole Arbutus Greenway. The present layout is dangerous and barely functional, and we are amazed that there has not been a serious injury. We understand a major redesign of this entire complex intersection is being carried out.

However, the visibility of the crossing needs to be improved for the upcoming busy 2018 summer season. Vehicles are still caught parked in the cross walk and the Arbutus Greenway users are forced to thread in and around them.

45th Ave

45th Avenue is an established bike route. The route will need wayfinding signage to identify the bike route. The vehicle speed is well controlled at the four-way stop on East Blvd and the traffic signal on West Blvd. The best layout for the Arbutus Greenway crossing is the straight through format to create the safest crossing for all the users.

The crossing needs to have wayfinding signage to advise bike riders that 45th is a bike route.

Existing bike connections: 45th Avenue bike route

49th Ave

49th Avenue is an arterial road. The Arbutus Greenway crosses obliquely to 49th Avenue. This makes the crossing more complex and hence less safe for users. Careful study of current user behaviour is required to find the best solution.

57th Ave.

The present crossing is unsatisfactory and will require a different layout. The West Boulevard and 57th Avenue intersection is controlled by a four-way stop. An inexpensive way to ensure that vehicles proceeding west slow down approaching the Arbutus Greenway crossing is to have a stop sign at the east side of East Blvd. Then the Arbutus Greenway could adopt its original alignment with stop signs for all users.

59th Ave. N Arm Trail Greenway Angus

The Arbutus Greenway has a connection to Angus Drive which connects to 59th Ave. Wayfinding signage is required.

Potential bike connections: Angus Street, 59th Avenue

64th Ave

This crossing appears to be working satisfactorily. Wayfinding signs are needed to inform Arbutus Greenway users of the street being crossed.

Potential bike connections: Local route shown on bike map

South West Marine Drive

South West Marine Drive is a major arterial street with a separated bike path. This Arbutus Greenway crossing is dangerous for all users on Marine Drive and the Greenway and the original rail alignment needs to be a traffic-signal crossing. South West Marine Drive is a separated bike route that leads to UBC and other routes. Wayfinding signage is required.

Existing bike connections: South West Marine Drive

Milton Ave

At present the Arbutus Greenway terminates at Milton Avenue. The location offers two key connections to cycling routes and a pedestrian route to the Marpole Loop, a major Translink bus exchange. Though the City of Vancouver has not purchased the CPR right of way east of Milton Avenue it owns the adjacent undeveloped 75th Avenue right of way from Milton to Hudson Street. 75th Avenue could be the east extension of the Arbutus Greenway to Hudson Avenue. Greenway users could then go safely on to the Marpole Loop and eventually to the proposed East Kent active transportation corridor route. Once this connection is completed the intersection will require a traffic control device and warning signs for vehicle drivers of the Arbutus Greenway crossing.

The other key connection is the Arthur Laing Bridge that leads to YVR airport and Richmond. This connection is used by experienced cyclists but due to the narrow shoulder bike lane is not considered safe. We appreciate that the Arthur Laing Bridge is owned and operated by YVR and that the City of Vancouver

can only suggest improvements. The present layout of the north end of the north end of the Arthur Laing bridge is dangerous for most cyclists to attempt.

Potential bike connections: Marpole loop, East Kent active transportation route, Arthur Laing Bridge

Conclusions

HUB Cycling sees the connections along the Arbutus Greenway as being one of the keys to the success of the project. The HUB Vancouver UBC Local Committee would be happy to talk further about these issues. We can be reached at vancouver@bikehub.ca

Sincerely

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