

Vancouver-UBC Local Committee

Sept 17th, 2019

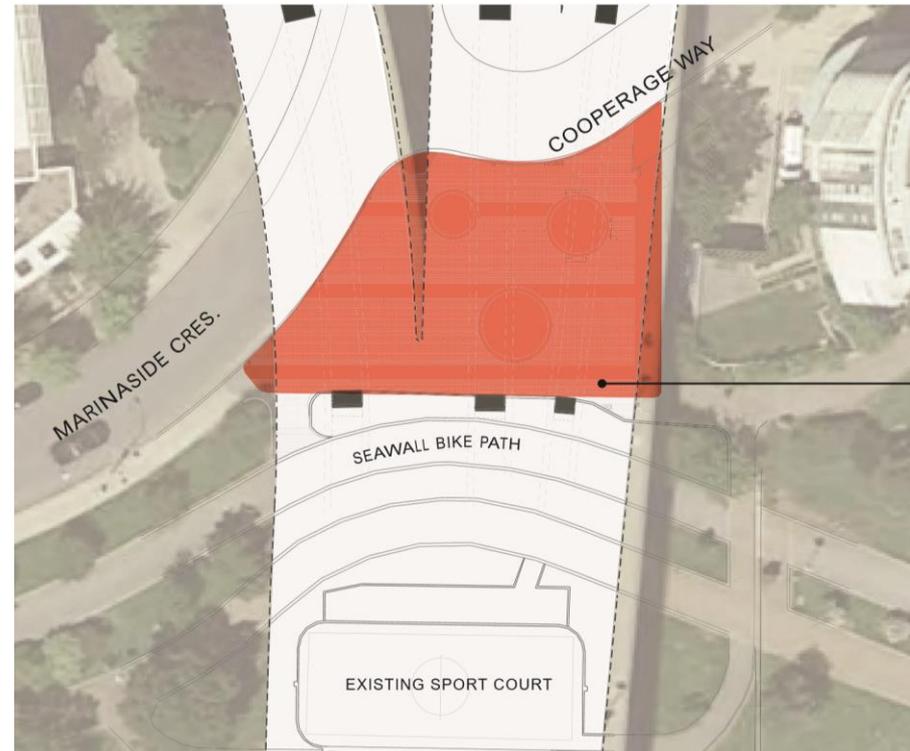
Topics

- Consultation Updates - Various
- Deep Dive – Granville Connector Design Options

Cooper Park Expansion



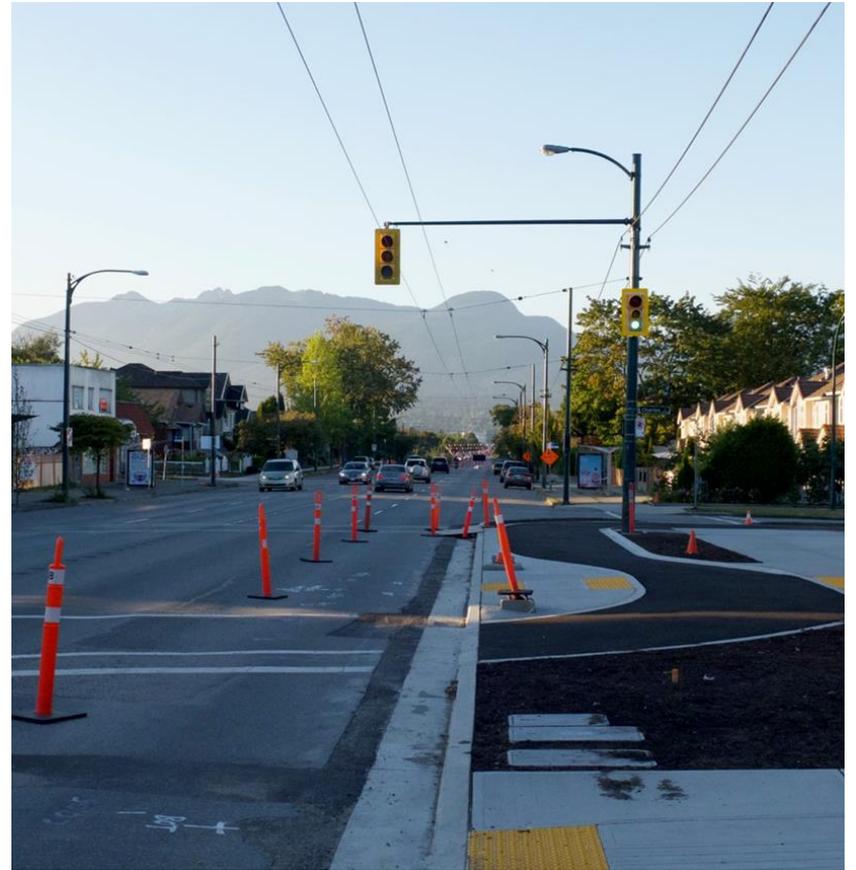
- Concerns over Seaside bike path access from the Cambie Bridge northbound MUP ramp
- Concerns over people walking between the two park areas stepping in to the bike path
- Concerns that new Marinaside Cres. protected bike path must be constructed prior to these changes



Cooper Park Expansion



Nanaimo St Improvements at Charles now underway



10th Ave Improvements at Arbutus now underway



↑ Eastbound view of 10th from the Arbutus Greenway, showing the location of the north side protected bidirectional lane.

Westbound view of 10th from the Arbutus Greenway, showing the south side location of the protected bidirectional bike lane. →

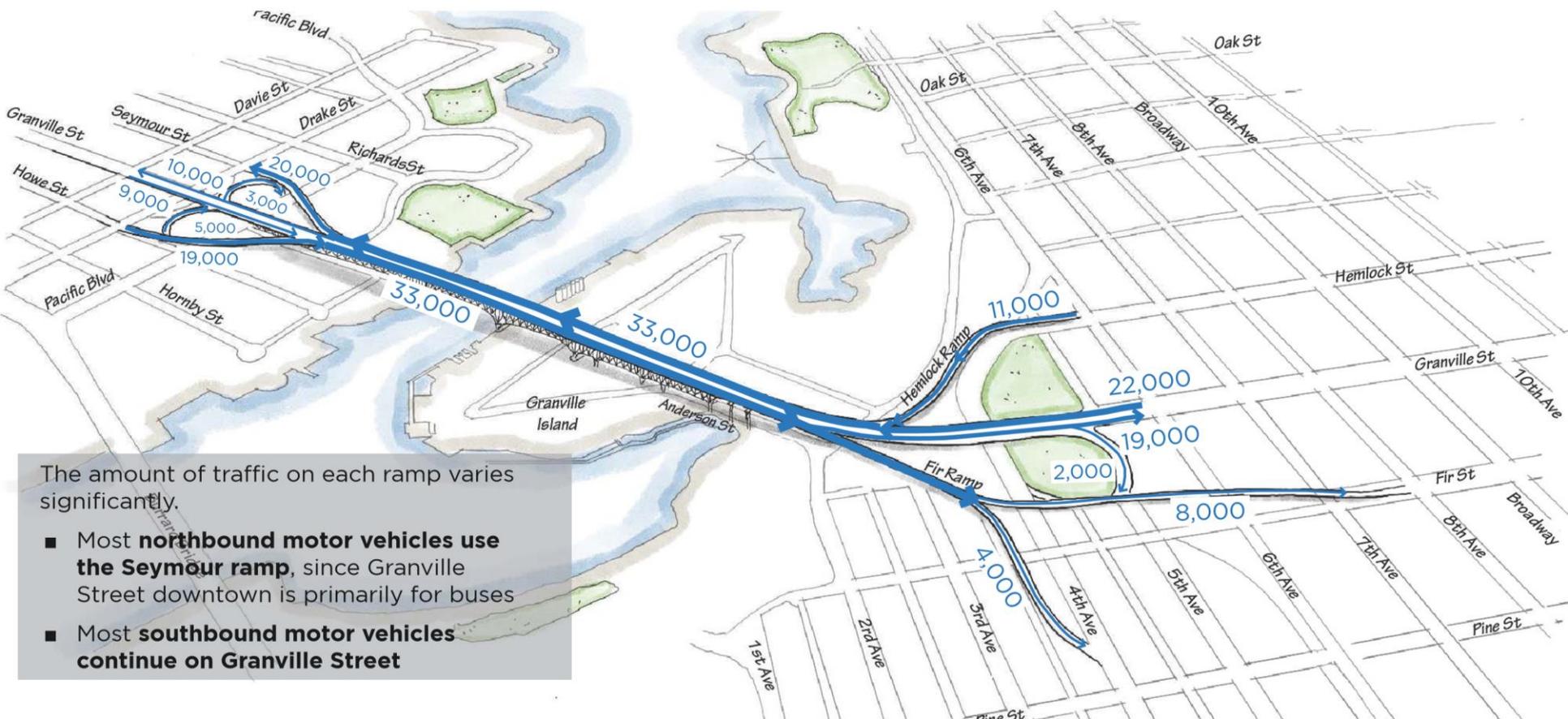


Granville Connector

- Phase II Public Engagement (now) – Design Options
 - Phase III (late 2019) – Preferred Options
 - Council Decision (Q1 2020)
- All options provide a protected bike path (or 2) across the bridge
 - West Side, and West Side +
 - East Side, and East Side +
 - Centre (raised)
 - Both sides (unidirectional bike paths)
- Consider connections, destinations, trade-offs, impacts on other modes, and opportunities

Consider impacts on other modes

AVERAGE WEEKDAY TRAFFIC ACROSS GRANVILLE BRIDGE

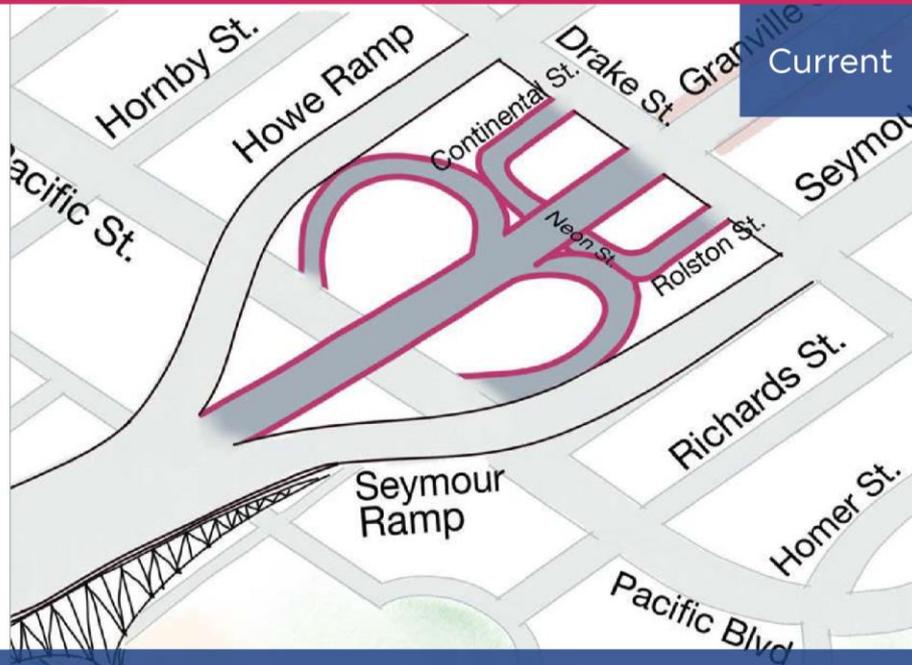


The amount of traffic on each ramp varies significantly.

- Most **northbound motor vehicles use the Seymour ramp**, since Granville Street downtown is primarily for buses
- Most **southbound motor vehicles continue on Granville Street**

Upcoming changes at the North End

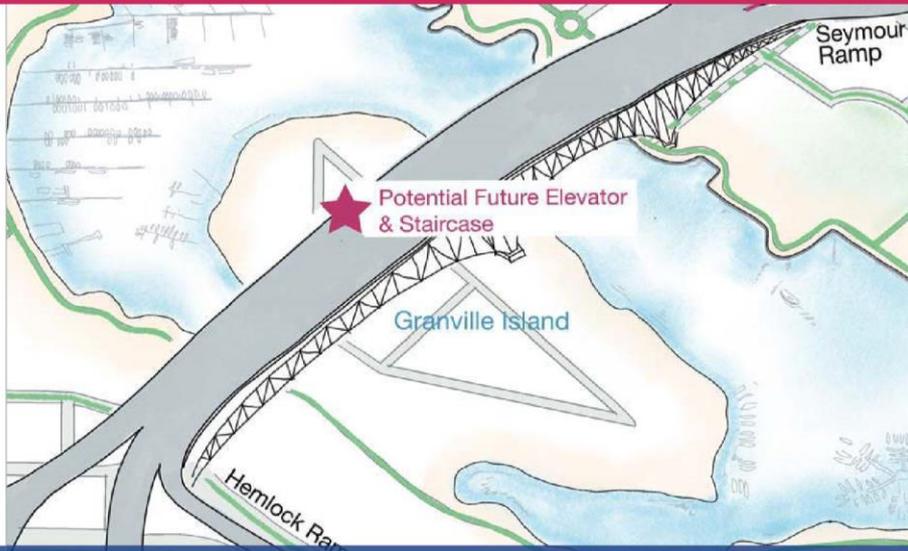
GRANVILLE LOOPS



The future replacement of the Granville loops to and from Pacific Street with a grid of people-friendly streets

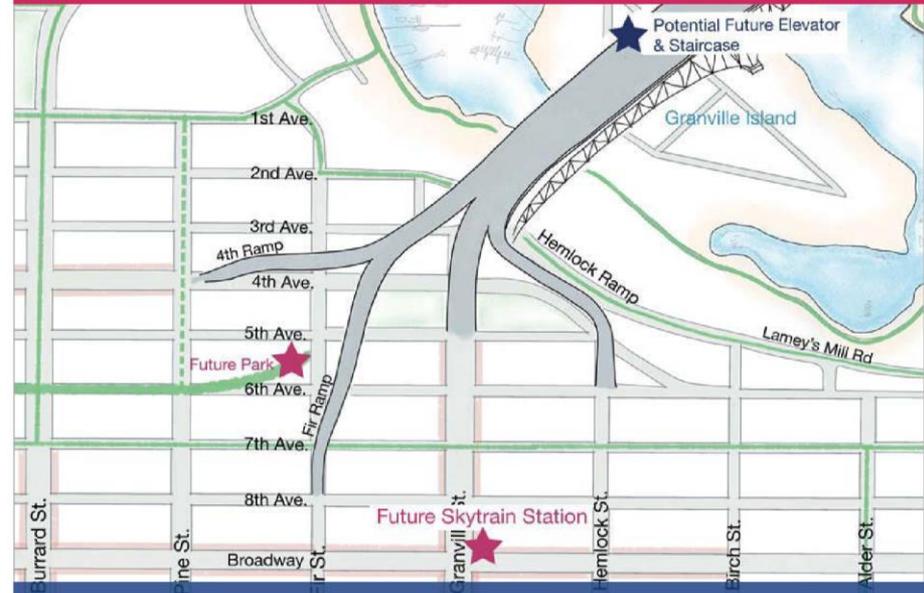
Connections at the South End

GRANVILLE ISLAND ELEVATOR



A potential future elevator and staircase to Granville Island and Seawall, served by an intersection and bus stops on the bridge deck

PARK EXPANSION | SKYTRAIN



The future park at W 6th Avenue & Fir Street and the future Granville-Broadway SkyTrain Station

360° Views from mid span



Courtesy of Paul Krueger, CoV

<https://www.flickr.com/photos/pwkrueger/albums/72157710763337127>

Option 1 – West Side

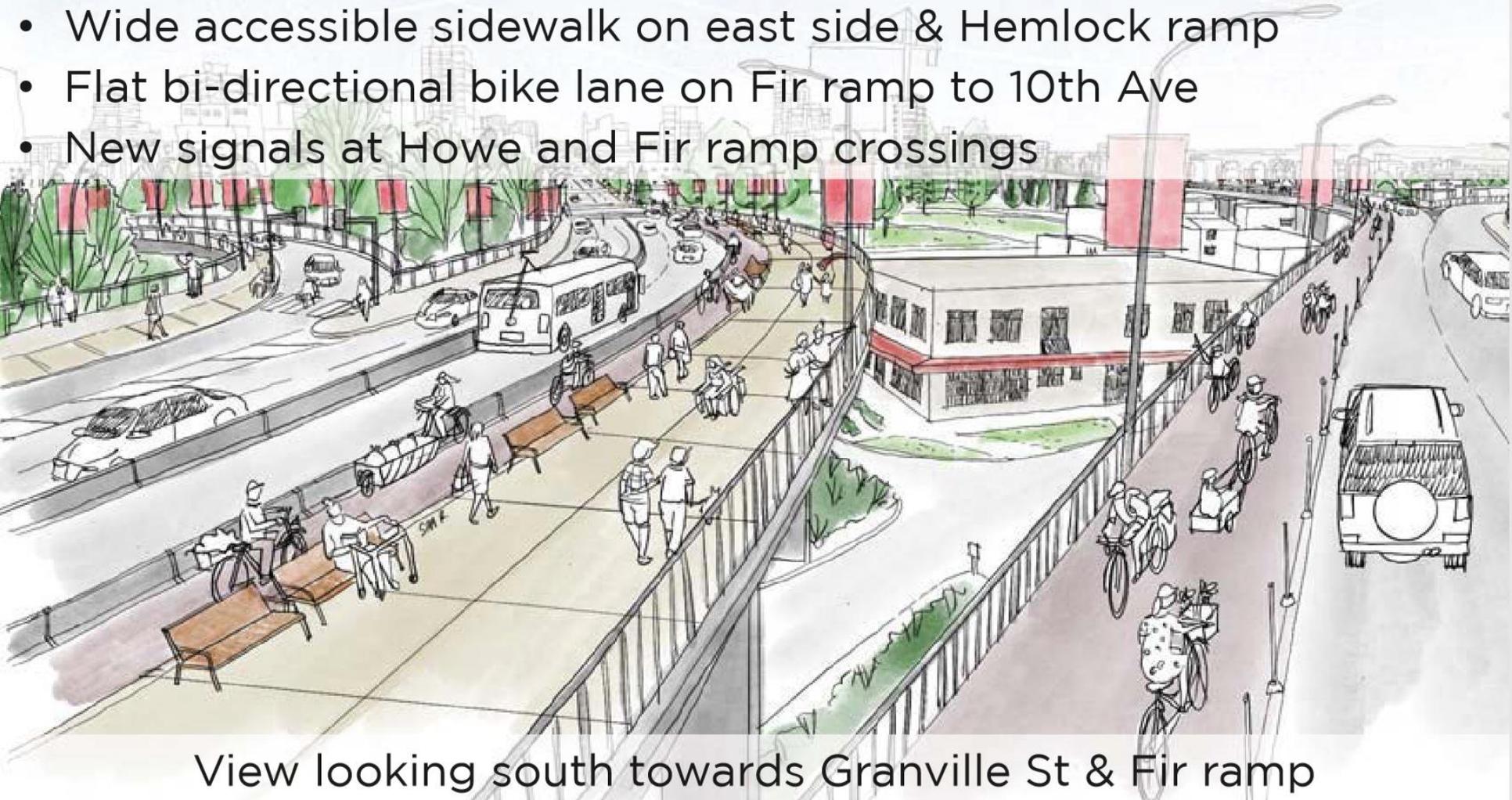
- Wide sidewalk & bi-directional bike lane on west side of bridge
- New signals at Howe & Fir ramp crossings
- No change to east sidewalk



View looking northwest from middle of bridge

Option 2 – West Side +

- Wide sidewalk & bi-directional bike lane on west side of bridge
- Wide accessible sidewalk on east side & Hemlock ramp
- Flat bi-directional bike lane on Fir ramp to 10th Ave
- New signals at Howe and Fir ramp crossings



View looking south towards Granville St & Fir ramp

Option 3 – East Side

- Wide sidewalk & bi-directional bike lane on east side of bridge
- New signals at Hemlock & Seymour ramp crossings
- No change to west sidewalk



View looking northeast from middle of bridge

Option 4 – East Side +

- Wide sidewalk & bi-directional bike lane on east side of bridge
- Wide accessible sidewalk on west side & 4th ramp
- Flat bi-directional bike lane on Hemlock ramp to 7th Ave
- New signals at Hemlock & Seymour ramp crossings



View looking southeast towards Hemlock ramp

Option 5 – Raised Centre

- Wide sidewalk & bi-directional bike lane down centre of bridge
- Path elevated approx. 1m above bridge deck to provide views
- No change to existing sidewalks on east & west sides



View looking north from middle of bridge

Option 6 – Both Sides

- Slightly widen existing sidewalks on both sides of bridge
- Uni-directional bike lanes on both sides
- Signalize Howe, Fir, Hemlock, & Seymour ramp crossings



View looking northwest from middle of bridge

Get Involved!

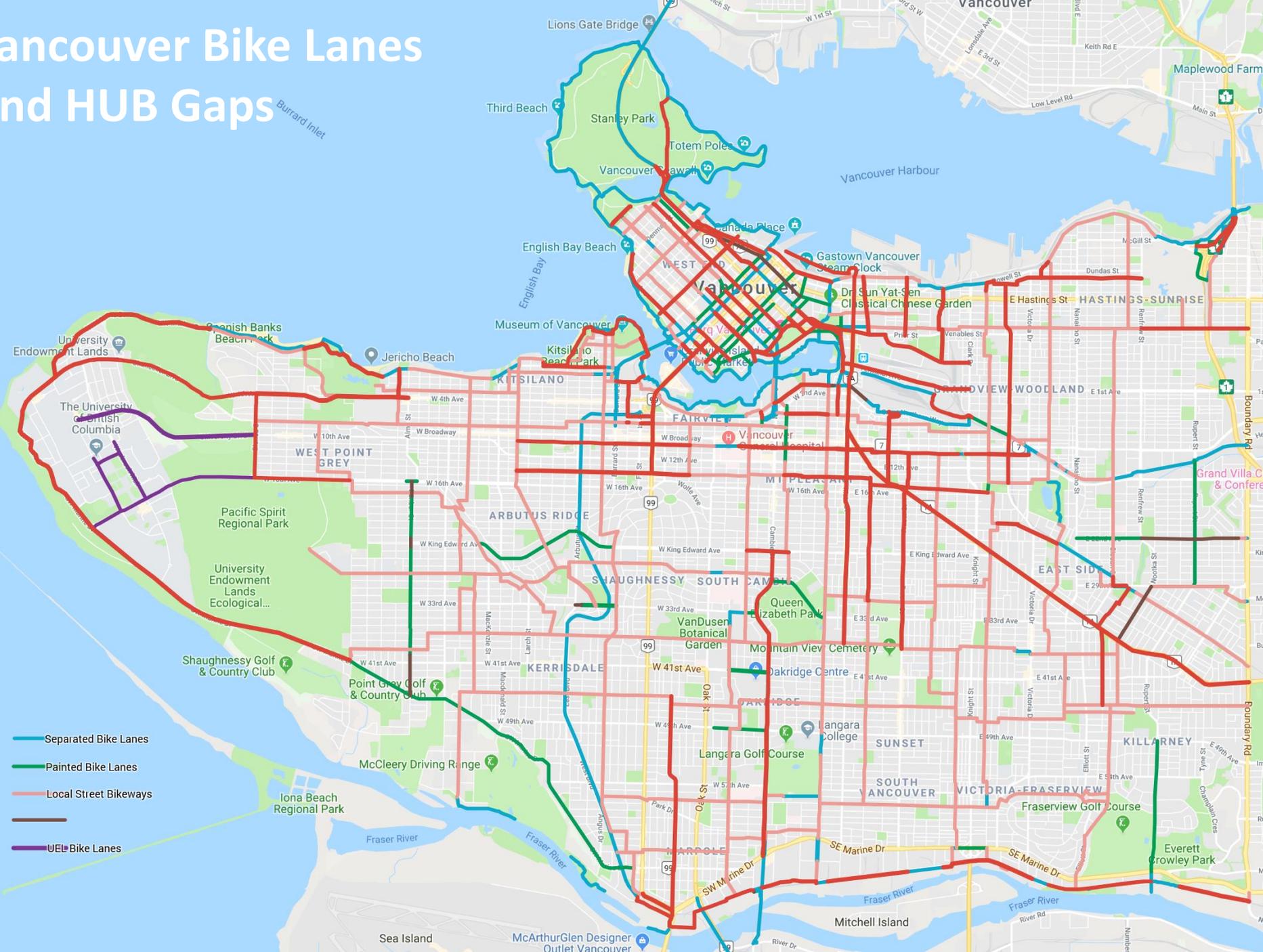
- Review the design boards on line and fill out a survey online
- Attend an open house (and fill out a survey)
- Attend a design workshop (need to register)
- Sign up for updates and watch for Phase III later this year
- Consider speaking at Council in 2020 when this goes for a vote

Appendices

Vancouver Bike Lanes (Van Map)



Vancouver Bike Lanes And HUB Gaps



- Separated Bike Lanes
- Painted Bike Lanes
- Local Street Bikeways
- UEL Bike Lanes

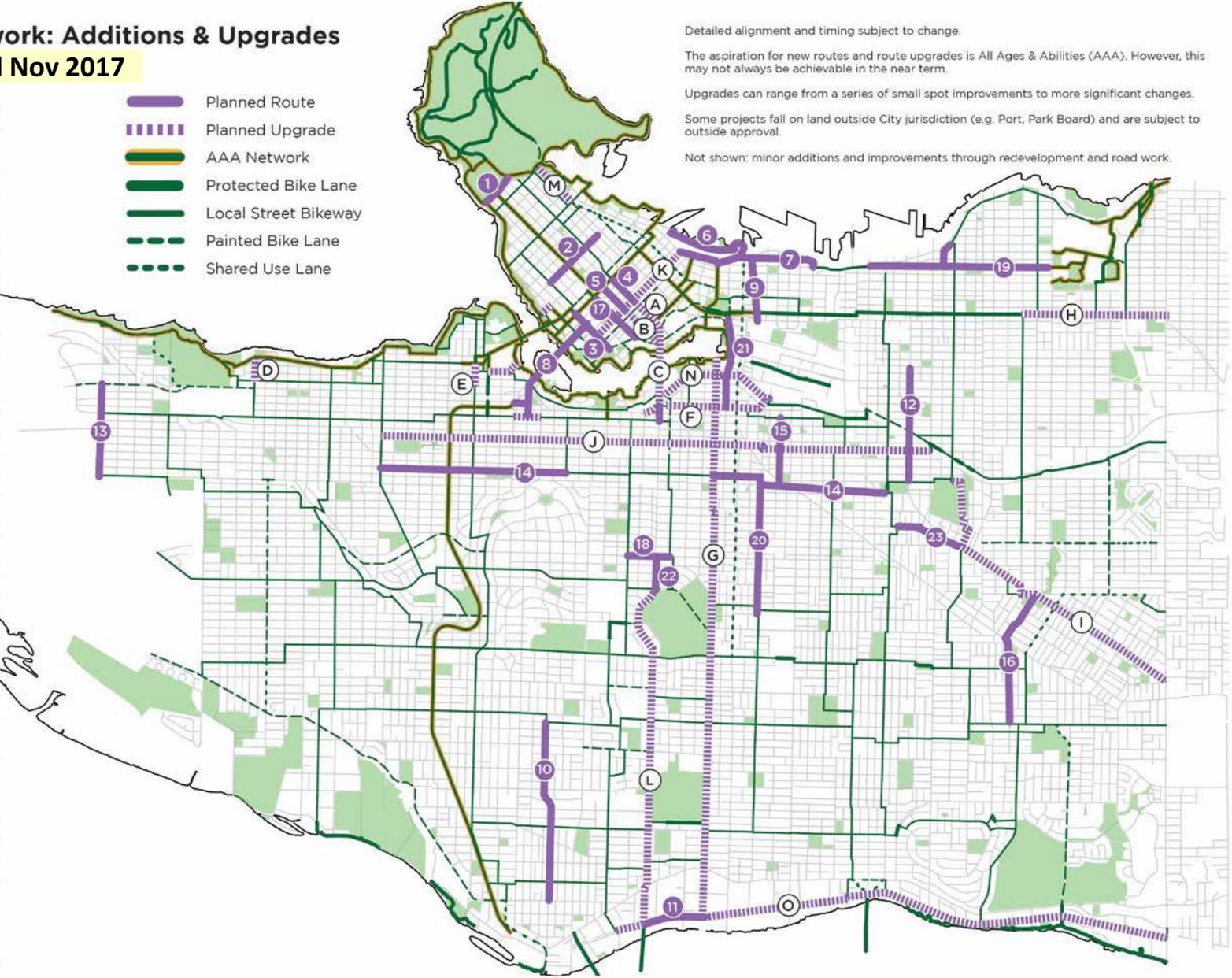
5-Year Cycling Network: Additions & Upgrades 2018-2022

Added Nov 2017

Detailed alignment and timing subject to change.
 The aspiration for new routes and route upgrades is All Ages & Abilities (AAA). However, this may not always be achievable in the near term.
 Upgrades can range from a series of small spot improvements to more significant changes.
 Some projects fall on land outside City jurisdiction (e.g. Port, Park Board) and are subject to outside approval.
 Not shown: minor additions and improvements through redevelopment and road work.

Planned Routes	
1	Park Lane*
2	Bute
3	Drake
4	Smithe
5	Nelson
6	West Waterfront Road**
7	Water-Alexander-Powell
8	Granville Bridge
9	Gore
10	Hudson
11	Kent
12	Commercial
13	Blanca
14	14th Ave
15	St. George Rainway
16	Duchess-Wales*
17	Helmcken
18	King Edward
19	Pandora-Semlin
20	Prince Edward
21	Quebec
22	Cambie
23	Stainsbury
Planned Upgrades	
A	Smithe
B	Nelson
C	Cambie Bridge
D	Highbury
E	Cypress
F	5th Ave
G	Ontario
H	Adanac
I	BC Parkway
J	10th Ave
K	Richards
L	Cambie
M	Georgia
N	1st Ave
O	Kent

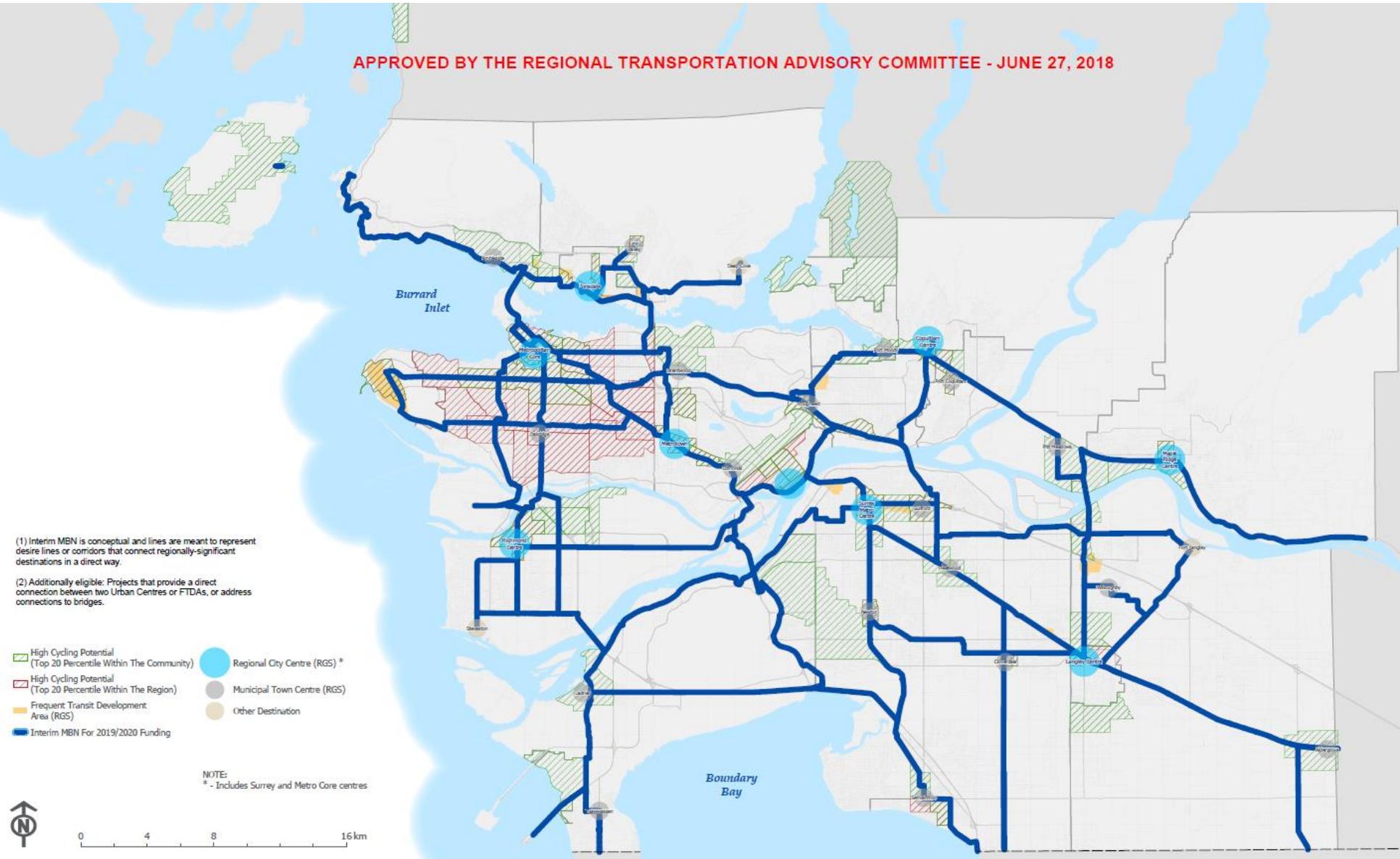
- Planned Route
- Planned Upgrade
- AAA Network
- Protected Bike Lane
- Local Street Bikeway
- Painted Bike Lane
- Shared Use Lane



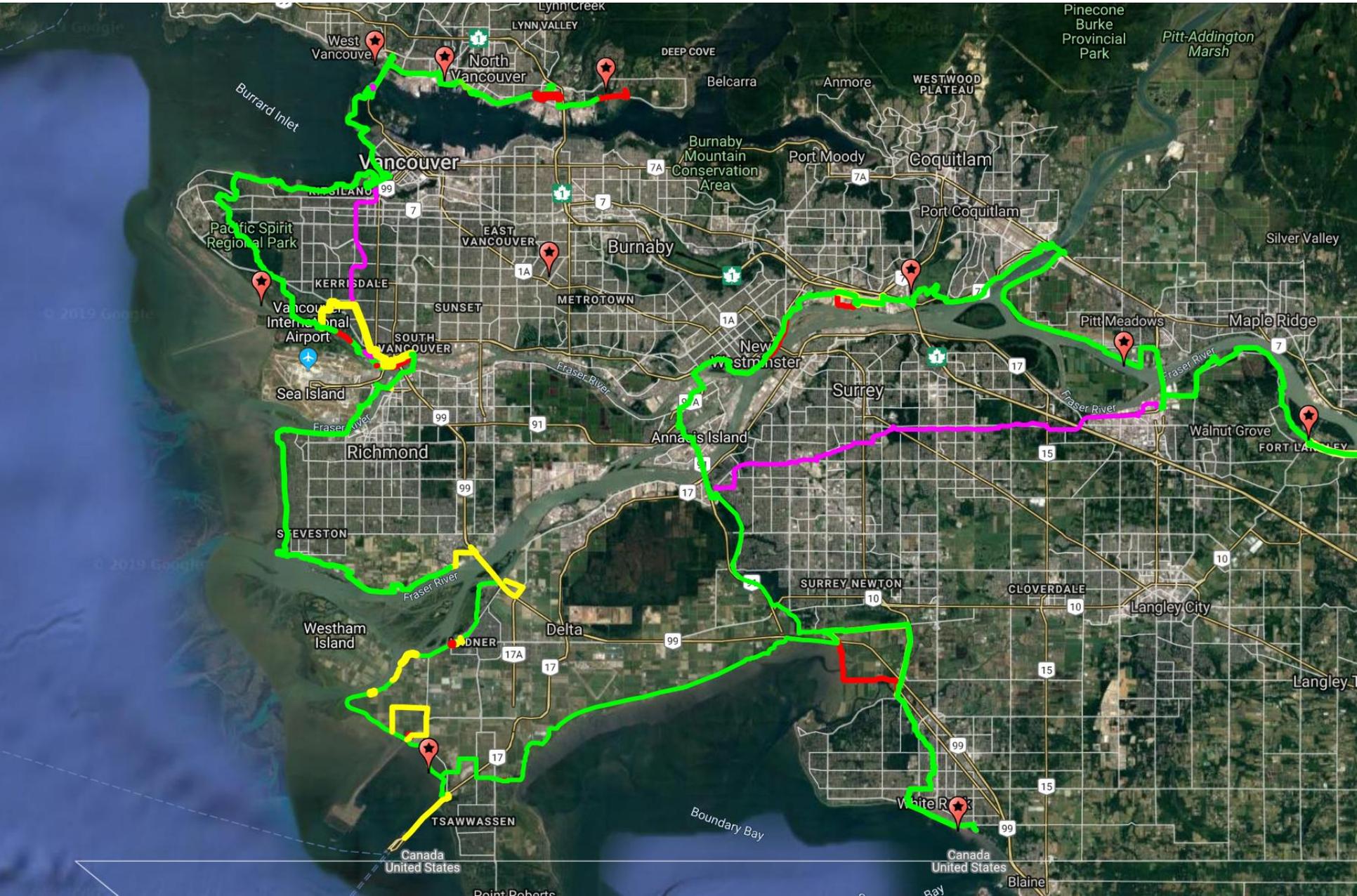
* Park Board jurisdiction
 ** Port Authority jurisdiction
 Number/Letter sequence does not imply priority

Translink Major Bikeway Network (MBN)

APPROVED BY THE REGIONAL TRANSPORTATION ADVISORY COMMITTEE - JUNE 27, 2018



Great Blue Heron Way



Type *	Class A** (Comfortable for most people)	Class B (Comfortable for some people)	Class C (Comfortable for few people)	Notes
Separated from vehicle traffic				
1 Bike Path: Off-road facility for the exclusive use of people cycling, may be unidirectional or bidirectional. Separate from both motorists and pedestrians, but designed based on bicycles operating in parallel with pedestrians, especially at intersections.	Width: Bidirectional 3.1-4.8 m, Unidirectional 2.1-3.0 m Posted Speed: N/A Volume: N/A	Width: Bidirectional 2.4-3.0 m, Unidirectional 1.5-2.0 m Posted Speed: N/A Volume: N/A	More narrow widths and unpaved facilities would be unclassified but may be shown on a regional cycling map	When in a road right of way (ROW): A bike path should fall outside of the Clear Zone (>1.2 m on roadways with posted speeds of <60 km/h - see Transportation Association of Canada Geometric Design Guide (TAC GDG), Table 7.3.1 for higher speed roads). Further, designs of bike paths should avoid obstacles in the pathway, include adequate sight lines and lighting, be direct, and avoid the use of rigid bollards. If cyclist volumes exceed 1,500 per day then recommended facility widths shall be >3.6 m bidirectional, and >2.4 m unidirectional. Bike Path's are generally appropriate near higher speed roads.
2 Protected Bike Lane: Exclusive on-road facility delineated by a vertical barrier element/physical separation from motor vehicles, as well as separation from pedestrians. Can be unidirectional or bidirectional	Width: Bidirectional 3.1-4.8 m, Unidirectional 2.1-3.0 m Posted Speed: ≤60 km/h Volume: N/A	Width: Bidirectional 2.4-3.0 m, Unidirectional 1.5-2.0 m Posted Speed: ≤80 km/h Volume: N/A	More narrow widths would be unclassified but may be shown on a regional cycling map	Separation from vehicles by delineator (curbs, bollards, concrete barriers, etc.) is required. Type of delineator dependent on speed and volume of traffic (for specific details see TAC GDG Chapter 5, section 5.7.5). Parking may provide additional barrier beyond the delineator - at a minimum curbstops over 100 mm high are necessary with periodic gaps for drainage and wheelchair access. Width of delineator is 0.30-1.0 m. If adjacent to parking, min separation is >0.80 m (Class A), >0.60 m (Class B). Volume: If motor vehicle ADT is greater than 4,000, this facility is more acceptable than others. If cyclist volumes exceed 1,500 per day then recommended facility widths shall be >3.6 m bidirectional, and >2.4 m unidirectional.
3 Multi-Use Path (MUP): Off-road facility that allows for shared use by people cycling and pedestrians.	Width: Bidirectional 4.0-6.0 m, Unidirectional bikes 3.0-4.0 m Posted Speed: N/A Volume: N/A Paved	Width: Bidirectional 3.0-3.9 m, Unidirectional bikes 2.4-2.9 m Posted Speed: N/A Volume: N/A Paved	Width: Bidirectional 2.7-2.9 m, Unidirectional bikes 2.1-2.3 m Posted Speed: N/A Volume: N/A Unpaved	MUP's are not intended to replace a sidewalk where there is sufficient motor vehicle or pedestrian and bicycle traffic that may lead to high rates of conflict. As a guide, MUPs are not appropriate when pedestrian and bicycle traffic volumes exceed a total peak hour volume of 200 users or where motor vehicle volumes on the parallel roadway exceed 4,000 ADT. MUPs are generally appropriate near higher speed roads. A MUP should fall outside of the Clear Zone (>1.2 m on roadways with posted speeds of <60 km/h - see TAC GDG, Table 7.3.1 for higher speed roads). Further, designs of MUPs should avoid obstacles in the clear zone, include adequate sight lines and lighting, be direct, and avoid the use of rigid bollards.
Unseparated from vehicle traffic				
4 Neighbourhood Street Bikeway or Shared Roadway: Bikes and motor vehicles share the roadway, which provides a continuous corridor of suitable operating conditions for people cycling, including limiting exposure to motor vehicle traffic. Can include a variety of roadways including local roads, alleys and service roads.	Width: Parking one side 5.5 - 7.5 m, parking both sides 8.0 - 11.0 m Posted Speed: ≤30km/h Volume: ≤1,000 ADT Traffic control at all major intersections designed to be bicycle activated. Traffic diversion and traffic calming preferred.	Width: Parking one side 5.5 - 7.5 m, parking both sides 8.0 - 11.0 m Posted Speed: ≤30km/h Volume: ≤2,000 ADT Traffic control at all major intersections designed to be bicycle activated. Traffic diversion and traffic calming preferred.	Width: varies, depending on road type Posted Speed: ≤50 km/h Volume: ≤3,000 ADT	Traffic diversion can include such treatments as directional and median barriers. Traffic calming can include such treatments as raised crossings, and bicycle permeable humps and chicanes. All such facilities should include shared lane markings to indicate the potential presence and positioning of people cycling. Municipalities are encouraged to limit posted speeds to 30 km/h on all Neighbourhood Street Bikeways and Shared Roadways. Widths: If curb less than 100 mm, or parking along curb, gutter pan can be included in width. Otherwise, width excludes gutter pan.
5 Bike Lane: On-road facility adjacent to a curb or a parking lane and delineated from motor vehicles with paint markings.	Never	Width: 1.8 - 2.4 m Posted Speed: ≤50 km/h Volume: ≤4,000 ADT Absence of curbside parking.	Width: 1.5-1.7 m Posted Speed: <60km/h Volume: N/A Presence of curbside parking permitted. If present, a buffer should be included btwn parking and bike lane. Combined curbside parking & buffer should be >3.0 m.	If parking present or speeds/ volumes might exceed limits or over 1,500 people cycling per day, protected bikeway recommended. Widths: If curb less than 100 mm, or parking along curb, gutter pan can be included in width. Otherwise, width excludes gutter pan.
6 Bike Accessible Shoulder: Signed and marked, paved area with no curb, located to the right of roadway general purpose travel lanes, and separated from general purpose lanes by white edge line or painted buffer. Usually in rural areas. May be shared with pedestrians.	Never	Width: 1.8-2.4 m Posted Speed: <50 km/h Volume: ≤4,000 ADT	Width: 1.5-1.7 m Posted Speed: <90 km/h If speeds >60km/h, buffer required between bicycle and vehicle lanes Volume: N/A	Parking not permitted in bikeway. If speeds/ volumes exceed limits, or over 1,500 people cycling per day protected bikeway recommended Width for buffered facility: 2.4-3.5 m total, bike lane 1.8-2.4 m

* In all cases pavement markings (bicycle stencils) and signage are necessary at regular intervals and should be placed 20 to 30 metres in advance of, and following each intersection and other decision points, or every 400 m when intersections are not present.

** Those facilities that do not meet the criteria for Classes A, B and C will be considered unclassified bikeway facilities. Such facilities should be upgraded over time to meet criteria for designated bikeways.