



January 23, 2017

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## Re: Lynn Valley Road - Highway 1 Underpass

HUB is a charitable organization working to get more people cycling, more often. We believe that more cycling means healthier, happier, more connected communities.

We thank the team from Core Project Management for presenting the Lynn Valley Road underpass project at our monthly meeting January 19, 2017.

The project addresses a key gap in North Vancouver's bike network. Lynn Valley Road is the main bike route from Lynn Valley to other areas of North Vancouver and beyond. We appreciate the commitment by the District of North Vancouver - through community amenity contributions from the BOSA development - to continue the southbound protected bike lane on Lynn Valley Road through the highway interchange. We also appreciate the workAs well as by the City of North Vancouver to provide the connection to Boulevard Crescent and Grand Boulevard.

Our recommendations below are based on the knowledge that:

- Protection from motor vehicle traffic encourages more people to bike and moves Lynn Valley Road towards an all ages and abilities (AAA) bike route.
- The design of AAA bike routes needs to consider cycling for transportation, including commuters from Lynn Valley. Many cyclists commute distances greater than 10km such as to Vancouver and travel at brisk speeds to minimize travel time. At the project location, cycling speeds are relatively high due to the flat or slightly downhill grade.
- The design of AAA bike routes needs to consider the growing use of e-bikes for transportation. These bikes provide electric motor assist up to 32km/h.
- Multi-use paths are perceived as safe by many people but rank low in actual safety due to user conflict, the presence of obstacles such as bollards, poles and furniture, and poor sight lines<sup>1</sup>.

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<sup>1</sup> Safety Evidence for Bicycling – Cycling in Cities Research Program 2014 <http://cyclingincities-spph.sites.olt.ubc.ca/files/2014/04/Bicycling-Safety-Evidence-Sheet.pdf> (p.3)



### **Recommendations for Intersections**

1. Separate the crossings for pedestrians and cyclists at Sutherland and 21<sup>st</sup> (see attached Figure 1).
2. Mark bike crossings in green in addition to elephant feet.
3. Align the bike crossing at 21st to provide a more direct, straight crossing, while leaving the currently proposed shorter crossing for pedestrians only.
4. Provide raised crossings at Sutherland and 21st.
5. Program a pedestrian signal at 21st to change automatically with signal for cars (no need to stop and push a button).
6. Install LED flashers at the highway on-ramp slip lane crossing which trigger automatically when cyclists approach and by push button for pedestrians (as on the Stanley Park causeway).
7. Do not install bollards on the path. Bollards increase the risk of cyclist collisions with the bollards, other path users, and motor vehicles, thereby making the path less safe.
8. Ensure curb let downs are at least the full path width and not narrower.

### **Recommendations for the Multi-use path**

9. Clearly mark pedestrian and cycling lanes on the multi-use path with a broken white line, a one-way bike stencil and a two-way pedestrian stencil (as on Stanley Park Causeway northbound path, see attached Figure 2). Maintain the lanes through the crossings of Sutherland and 21st.
10. Maintain the width of the path at 4m or as close as possible to ensure the safety of all path users. Move retaining walls and remove trees where necessary. If this is not desired or possible, consider narrowing the travel lanes further to widen the path for pedestrians and cyclists.
11. Clearly mark the pedestrian and cycling areas on the path near the bus stop northeast of Sutherland (see attached Figure 3).
12. Consider removing or relocating the proposed bus shelter if it obstructs the driver's view of people on bikes when drivers turn right across the path into Sutherland.
13. Ensure good lighting of the path.

### **Recommendations for the Bike lane**

14. Install flexible delineators on the approach to the on-ramp slip lane and at the island consistent with those used on the District of North Vancouver's protected bike lane.



If you have any questions or comments about the above recommendations, please let us know. We would be happy to discuss these suggested improvements with you.

Sincerely,

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Figure 1: Separated pedestrian and cycling crossing on Stanley Park Causeway multi-use path



Figure 2: Marked pedestrian and cycling lanes on northbound Stanley Park Causeway multi-use path





Figure 3: Clearly marked pedestrian and cycling areas in high conflict zone at Lions Gate Bridge near Prospect Point. Cycling speeds are high downhill from the bridge while tourists walk through this area to view the bridge.