102 – 375 Lynn Avenue North Vancouver, B.C. V7J 2C4 corepm.ca



March 30, 2017

Attention: Tony Valente Chair, HUB North Shore northshore@bikehub.ca

Subject: Lynn Valley Highway 1 Interchange Project

Dear Mr. Valente,

Thank you for the opportunity to speak at HUB North Shore's monthly meeting on January 19, 2017 regarding the upcoming Lynn Valley Highway 1 Interchange Project (the "Project"). We appreciated the letter you provided on January 23, 2017 with comments from the group pertaining to the design concept presented, along with a follow-up email on January 29, 2017, with additional comments.

The goal of the Project is to upgrade the Lynn Valley Road Highway 1 interchange in order to help reduce traffic congestion for traffic entering eastbound and westbound Highway 1, and traffic travelling southbound on Lynn Valley Road. The Project will also provide a continuation of the southbound bicycle lane through the project footprint to improve the cycling connection from a commuter and safety perspective.

As discussed at the meeting, we are endeavouring to accommodate the interests of all groups impacted by this Project, so we really appreciate the insightful input provided by your comments.

Our responses to your comments in the January 23, 2017 letter are as follows:

1. Separate the crossings for pedestrians and cyclists at Sutherland and 21st (see attached Figure 1). – The crossing at 21st Street has been separated and cyclists will operate as a vehicle when crossing at this intersection. The Sutherland crossing was reviewed and separated crossings were not included. As it is marked in the current drawings, the pedestrians and cyclists have to be aware of vehicles approaching and ensure that a vehicle has stopped before they cross. The location of the bus stop adds complexity to the driver turning right. A wide crossing has been included to allow for both cyclists and pedestrians. Adding a separated crossing may leave the cyclists with the impression that they have the right of way. This is not the case as cyclists have to ensure that a vehicle has stopped before they make the crossing.

2. Mark bike crossings in green in addition to elephant feet. – The southbound crossing at 21st St has been marked in green with a dashed line as this is an unusual crossing where on off-street bicycle facility becomes on-street, and as such, the green paint is continued through the intersection. At the crossing at Sutherland, elephant feet have been added but adding green paint may leave the cyclist with the impression that they have the right of way. This is not the case as cyclists have to ensure that a vehicle has stopped before they make the crossing.

3. Align the bike crossing at 21st to provide a more direct, straight crossing, while leaving the currently proposed shorter crossing for pedestrians only. – Included in the design.

4. Provide raised crossings at Sutherland and 21st. – Raised crossing were considered but not included. The crossing at 21st has been adjusted so that cyclists cross the intersection on the road operating as a vehicle. At Sutherland the current crossing is adequate to meet the needs of pedestrians and cyclists without a raised crossing.



5. Program a pedestrian signal at 21st to change automatically with signal for cars (no need to stop and push a button). – This is not required as the crossing at 21st has been adjusted so that cyclists cross the intersection on the road, operating as a vehicle. The signal rests on the main north-south movement and there is no need for a push 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). – This is not included. The current design has a dedicated on-street bike lane. There is green paint and there will be signage to advise drivers of the cyclists crossing the roadway. The Stanley Park example is an off-street bike lane crossing a ramp. This intersection will be monitored by the District. The intersection is also being pre-ducted where construction is taking place for possible future signalization.

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. – No bollards are being installed as part of this Project.

8. Ensure curb let downs are at least the full path width and not narrower. – Curb let downs have been accommodated to suit the pathway and are as wide as the design will permit.

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. – Delineation between pedestrians and cyclists will be provided by a solid white line on the new MUP.

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. – Path is maintained at 4m in width as much as possible. Property restraints south of Sutherland Ave restrict the amount of widening that is possible in this area, so the MUP width will vary between 3.2m and 3.0m until it ties into the existing bicycle lane south of 21st St.

11. Clearly mark the pedestrian and cycling areas on the path near the bus stop northeast of Sutherland (see attached Figure 3). – Included in the design.

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. – Bus shelter removed from the design, with only a pole and bench now provided.

13. Ensure good lighting of the path. – Included in the design.

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. – To be included in the design.

Additional comments were also provided by HUB via email on January 29, 2017, to which we have the following responses:

1. Provide a convenient and clear connection from the bike lane to the path to Weymouth Place, such as a curb let down and sufficiently wide multi-use path along the on-ramp slip lane to Weymouth Place. - This has been included in the design.

2. Mark Lynn Valley Road crossing with elephant feet, in addition to the proposed zebra markings. Install LED flashers to make it safer for pedestrians and cyclists to cross. - This is not included in the design. Cyclists will have to dismount to cross Lynn Valley Road at this location. This intersection will be monitored by the District. The intersection is being pre-ducted where construction is taking place for possible future signalization.



In addition to this letter, we have attached the latest design drawing which will highlight the changes that have been made to the design in response to your excellent comments.

Please let me know if you have any further questions or concerns.

Sincerely,

Chile

Cormac Linehan, P.Eng Project Manager

