



January 3, 2017

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### **'Low hanging fruit' list to improve cycling**

Dear Shazeen,

The HUB North Shore Committee has updated the 'low hanging fruit' list (attached). The previous two versions of the list were submitted to the District in 2013 and 2014 at their request to identify low-cost opportunities to improve the bike network in North Vancouver.

The improvements include wayfinding signage, other signage, signal programming, roadway markings, curb drops and other improvements. Several wayfinding items on the list are in cooperation with the City of North Vancouver and West Vancouver.

We hope the attached list will support the District's goal of a sustainable transportation system.

If you have any suggestions or questions about the items on the list, please let us know.

Sincerely,

Antje Wahl  
Member, HUB North Shore Committee

Tony Valente  
Chair, HUB North Shore Committee  
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# 'Low hanging fruit' cycling improvements

*District of North Vancouver*

*3<sup>rd</sup> edition, January 2017*

## Wayfinding signage

General: use consistent TransLink wayfinding signage design across North Shore. The following routes are considered high priority for signage since they are difficult to find without extensive local knowledge.

1. Barrow Street route when path is built (sign to/from Ironworkers Memorial bridge and main destinations: Lower Lynn, Capilano University, Deep Cove, Lower Lonsdale, Central Lonsdale etc.)
2. Lynn Valley Road bypass from Sutherland to Lynn Valley Town Centre/Mall via 21st St, Rufus, Kirkstone Park (with CNV)
3. Philip Avenue connection between Pemberton Heights and Edgemont
4. West Van-North Van connection via Hwy 1 Capilano River bridge (with DWV)
5. West Van-North Van connection via Marine Dr Capilano River bridge: from Lower Cap/Capilano Rd to Park Royal/Ambleside via Lions Gate Bridge access paths and Spirit Trail (with DWV)
6. West Van-North Van connection via Cleveland Dam (with DWV)
7. Sign Lynn Valley route Mountain Hwy-27th-Crestlynn-28th-trail-Ross-Allan to Lynn Valley Rd. Safe bike route to Ross Road Elementary and avoids dangerous Mountain Hwy/Lynn Valley Road intersection area.
8. After improvement with curb let downs and widening some spots, sign Harold route in Lynn Valley from Hoskins to power line/29<sup>th</sup> St west of Shakespeare.

## Signals

9. On Dollarton Highway program signals for automatic signal change for path users at intersections
10. Signal timing review to determine if cycle lengths could be adjusted to make it more convenient to cross busy arterials on bike and on foot. Even a few seconds here and there would make it more convenient.

## Other signage

11. No right turn on red southbound Mountain Hwy at Lynn Valley Road. RTOR vehicle driver's attention is focused on their left at the oncoming stream of cars rather than checking to their right for entering pedestrians. Often they end up stranded in the crosswalk waiting or when the signal phase goes all red and they finally get a gap, they barge through and cut off waiting pedestrians / cyclists.
12. Right turn only lanes: Add a simple tab on signs to permit bicycles through if there is suitable width on the receiving side (southbound Mountain Highway at Lynn Valley Road).
13. Mountain Highway: "Share the road single file" advisory signage on pavement and signposts to encourage cyclists to take the lane on Mountain Highway between Harold Road and Frederick Road



14. Westview Drive: “Share the road single file” advisory signage on pavement and sign posts on Westview just south of Queens to encourage cyclists to take the lane on both through and left turn lanes

### Pavement markings

15. Mountain Highway: bike sharrows in centre of lane between Harold Road and Frederick Road to encourage cyclists to take the lane
16. Westview Drive just south of Queens Road: bike sharrows in centre of lane to encourage cyclists to take the lane for both through and left turn lanes
17. 1st Street: realign buffered bike lane at Mackay Creek bridge during next repaving/restriping of 1st St. Bike lane should be more straight line across the bridge and buffered from vehicle traffic, not buffered from sidewalk curb.
18. Mount Seymour Parkway: mark in green bike lanes where they cross slip lanes

### Separators

19. Mount Seymour Parkway: more separation than paint is needed on 60km/h road where traffic often moves at 70km/h or faster. At the very least remove hazardous on-street parking westbound down the hill and install painted buffer with plastic posts or other separator.

### Curb drops

General: build all curb let downs, including entrances to sidewalks and driveways flush with the road (or as close to flush as possible). This improves accessibility and safety for all wheeled users, whether on bikes, skateboards, scooters or in wheelchairs or strollers. Many curb drops are built too high.

20. Spirit Trail at Lloyd: widen curb drop to width of painted crosswalk. Existing curb is a serious hazard for cyclists and it creates conflict with pedestrians.
21. 23rd Street: remove the concrete block and let down the curb at the entrance to the trail in Pemberton heights that allows peds and cyclists to access the 23rd Street bike route and Philip tunnel under the highway
22. Capilano Road: curb drop at highway entrance from Capilano Road to Highway 1 westbound to get onto sidewalk to cross bridge over Capilano River
23. Edgemont Boulevard: curb drop on Edgemont Boulevard at ramp to/from Hwy 1 path at southeast corner of highway overpass
24. Forest Hills Drive: curb drops at each end of Forest Hills Drive to connect with the paths
25. Wayne Drive (near dead end) at trail head with Mosquito Creek trail crossing to connect to Forest Hills Drive
26. Edgewood Road, Cheviot Road: curb drop either end of MacKay Creek-crossing trail outside Handsworth school
27. Grousewood Drive, Cortez Road: curb drops for path connecting Grousewoods Dr and Cortez Rd
28. Cleveland Dam: curb drop just on the inside of the entrance to the Cleveland Dam (not the parking lot, but the road onto the top of the dam)



29. Mountain Highway/Main Street: on the southeast corner of the intersection of Mountain Highway and Main Street, curb drop to allow cyclists to go up onto the sidewalk to access the path under Highway 1 and the Ironworkers Memorial Bridge
30. Dollarton Highway: fix curb drop on the shared use path at Forester Street. Somebody did a poor job when this was built. People in wheelchairs would be not able to climb the curb 'drop' either.
31. Harold Road: curb drops at all trail entrances to provide a bike route from Hoskins in the east to Fromme in the west, and continue west via Shakespeare and power line trail south to 29th
32. 29th Street: curb drops and crosswalk across 29th St under the hydro line just west of William Avenue
33. Tennyson Crescent: two curb drops to allow access to paths through Hunter Park

### Other improvements

34. Remove 'baffle' installation on Spirit Trail west of Pemberton Ave. Improve safety for all users by considering the recommendations in this letter: [http://wiki.bikehub.ca/northshore/images/4/4d/2015-12-05\\_HUB\\_SpiritTrail\\_Safety\\_Pemberton.pdf](http://wiki.bikehub.ca/northshore/images/4/4d/2015-12-05_HUB_SpiritTrail_Safety_Pemberton.pdf) (tree pruning has been done)
35. Move fold-down bollards on multi-use path at end of Fern cul-de-sac. The bollards should be along the edge of the path towards the highway overpass, not in the middle of the path where they are an obstacle to path users.
36. Remove all bollards from bike infrastructure. Replace only if and when evidence of significant un-authorized motor vehicle access is presented.
37. Throughout DNV: replace parallel bar grates
38. Marine Drive: huge catch basin depressions need to be fixed, between Capilano Road and Pemberton on the south side moving east
39. 15th Street: put a traffic diverter (no through street) somewhere along the 15th Street bike route west of Pemberton. Cars increasingly use this as a through route especially when there are backups on Marine Drive
40. Old Dollarton Road: Widen path/sidewalk cutting across the corner from Old Dollarton Road to the multi-use path on Dollarton Highway. This allows cyclists coming from Maplewood to get on the multi-use path.
41. Mount Seymour Parkway bridge across Seymour River: install a direct path on the east side to the new under-bridge pathway. The direct route is fenced off although this is where people want to go (not the long way around, especially not pedestrians).
42. Evergreen Avenue: replace the stairs with ramps on the Evergreen Ave yellow bridge over Mosquito Creek. Probably higher cost item but there are very few connections to get across Mosquito Creek. It would also improve accessibility for other users. Alternatively, adapt debris-torrent-arrestor downstream of bridge for bike use. The arrestor is currently fenced and gated so people don't use it to cross the creek. However, the basic structure is flat and with different fencing it could work for bikes.