Your Cycling Connection

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February 13, 2015

Brian Bydwell
General Manager, Planning, Properties and Permits
District of North Vancouver

Cc: Karen Rendek, Policy Planner, District of North Vancouver
Gavin Joyce, General Manager, Engineering, Parks & Facilities, District of North Vancouver
Steve Ono, Manager, Engineering and Deputy General Manager, District of North Vancouver
Erica Geddes, Transportation Section Manager, District of North Vancouver
Tegan Smith, Transportation Planner, District of North Vancouver
Mayor and Council, District of North Vancouver,
Dr. Mark Lysyshyn, Medical Health Officer, Vancouver Coastal Health

Lynn Valley Town Centre Draft Public Realm Design Guidelines

Dear Mr. Bydwell,

HUB is a charitable organization that encourages cycling for all ages and abilities in Metro Vancouver to improve the quality of our communities and local economies, our health and the environment.

We are writing to provide feedback and improvement suggestions for the proposed street designs in Lynn Valley Town Centre as presented at the open houses on January 25 and 28, 2015.

A stated objective of the Official Community Plan (OCP) is to increase active transportation, which has significant physical health, economic, social and transportation benefits. The proposed design for Lynn Valley Town Centre includes low quality, unsafe bike lanes that do not support the goal of growing transportation by bike. The public space allocation and street design favour driving to High Street shops and discourages people on bikes. Rather than multimodal, the High Street design is bimodal for cars and walking. Below are our recommendations for High Street, Library Lane and the pedestrian/cycle greenways.

1. High Street

The design of High Street precludes safe, all ages and abilities (AAA) access by bike to the "physical, social and economic heart of the community". The design has been changed from protected bike lanes presented during the 2013 public input to one of the most dangerous bike lane designs[1].

[1]Teschke, K. et al. Bicycling crash circumstances vary by route type: a cross-sectional analysis. *BMC Public Health* 2014, 14:1205.
Teschke, K. et al. Route infrastructure and the risk of injuries to bicyclists: A case-crossover study. *American Journal of Public Health* 2012, 102(12): 2336–2343.

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Figure 1: DNV High Street design proposed at January 2015 Open House
Bike lanes between moving cars and parking lane with high parking turnover. No door buffer to parked cars, and no protection from moving traffic and cars parking.

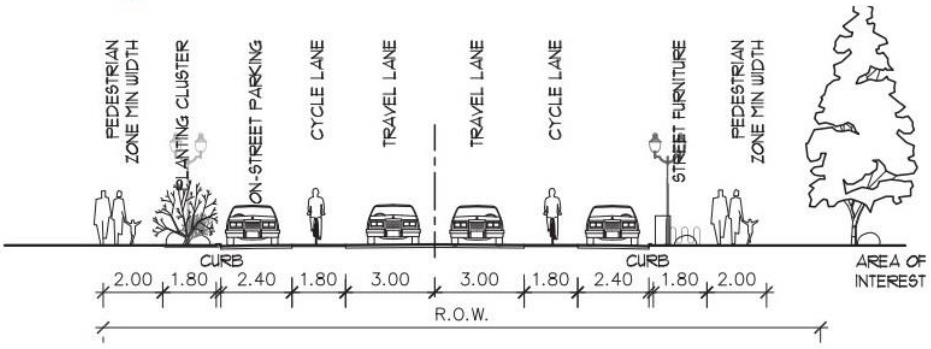
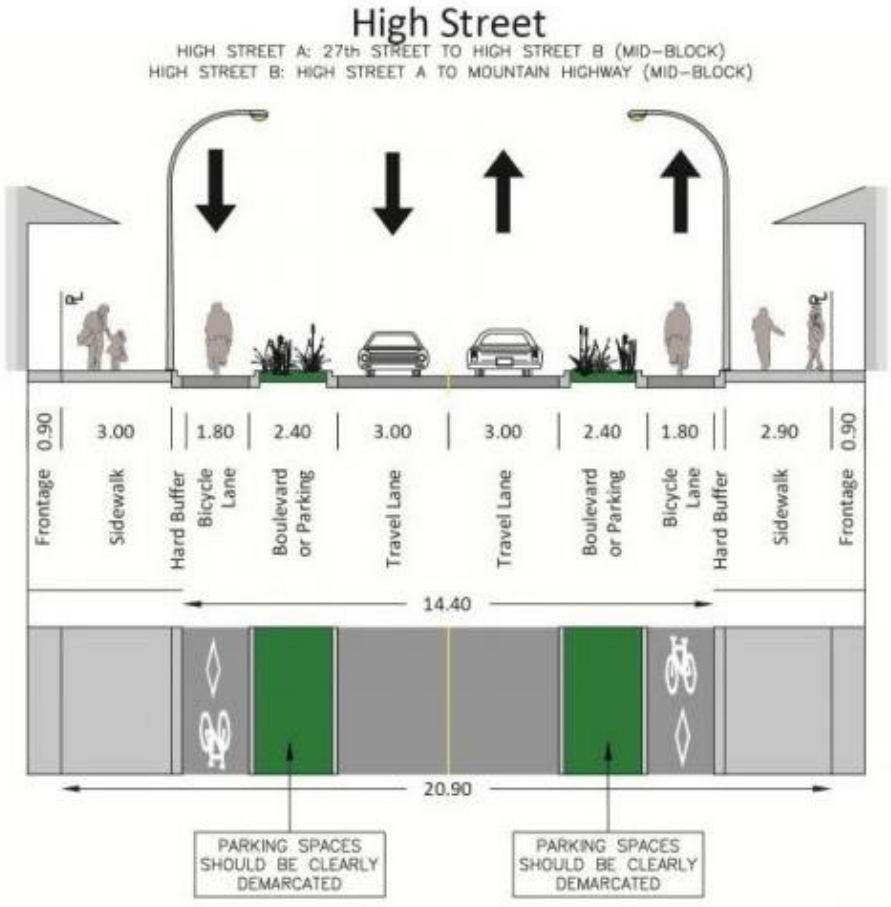


Figure 2: DNV High Street design proposed at June 2013 Open House
Bike lanes protected from moving cars by either planted area or parked cars. No door buffer between parked cars and bike lane, and no shy space to lamp standards.



The design for High Street should be modified to include protected bike lanes that will allow everybody, from children to seniors, to safely cycle to shops and to the heart of the town centre.

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Health and safety considerations
The District identified in the 2013 design a dooring hazard from the passenger side and a potential for conflict with pedestrians at street crossings. The three design options shown on the next page mitigate or eliminate these risks and conflicts.

In the latest 2015 design proposed by the District, bike lane users would be exposed on one side to opening car doors and high parking turnover, and on the other side to moving car traffic. No parent would allow their children of any age to ride here, nor would most adults wish to ride in such a bike lane[2]. The proposed 30km/h speed limit does little to mitigate the inherent risks of this bike lane design. Children in particular would have trouble recognizing and reacting to the compound hazards posed by moving traffic, cars parking and pulling out, and car doors opening into the bike lane.

We disagree with the District's risk assessment of the 2013 and 2015 designs. In its decision to move the bike lanes out into traffic, the District has equated the risk of mere inconvenience or minor injury to people on bikes or on foot with the risk of serious injury of people riding between moving traffic and opening car doors. No consideration appears to have been given to how the design change will affect the District's goal to increase transportation by bike and reduce trips by car. Rather than discarding the 2013 design, it should be revised and improved.

Business considerations
By not providing a protected AAA bike route through High Street, the District would miss a significant opportunity to support the retail businesses and increase the attractiveness of the town centre. Attached to this letter are references to recent North American studies about the relationship between retail spending, transportation mode and cycling facilities.

People who are cycling or walking, move more slowly and are more flexible than people in cars and so are more easily able to stop and buy something from local businesses while travelling. Protected bike lanes on shopping streets boost retail, lower vacancy rates and increase real estate values. Painted bike lanes near traffic have little or no such effect because so few people use them.

Community considerations
Streets designed to foster active transportation and transit help build strong communities by enabling community members to interact with the public sphere when they are on route to their destinations. Protected bike lanes enable such interactions, among people who ride and between those who walk and ride. Pushing people on bikes out between parked and moving cars, not only discourages cycling but also removes any possibility of social interaction.

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[2] Winters, M. and K. Teschke. Route preferences among adults in the near market for bicycling: findings of the cycling in cities study. *American Journal of Health Promotion* 2010, 25(1): 40-47.

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Improved design options for High Street

Several possibilities exist to provide protected bike lanes while maintaining or widening the sidewalks, and maintaining one or both parking lanes. Three improvement options are shown below.

Note that in all of these designs planted areas could be reduced to allocate more space to buffer people on bikes from car doors and provide more space for people walking.

Figure 3: High Street design – Option A

Protected bike lanes on both sides of street. Door buffer added, bike lanes and sidewalks widened by removing parking lane on one side of street.

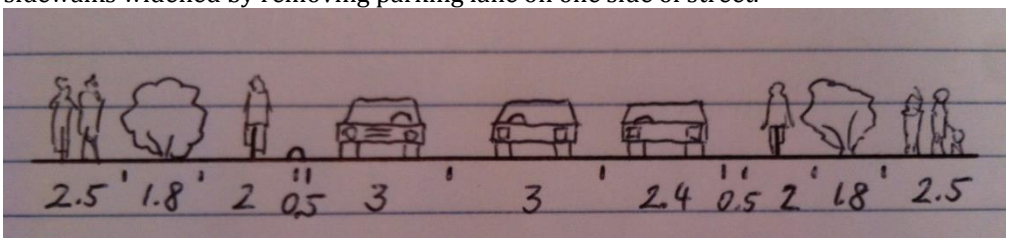

Figure 4: High Street design – Option B

Protected bike lanes on both sides of street. Door buffer added and bike lanes widened by reducing width of planted areas.

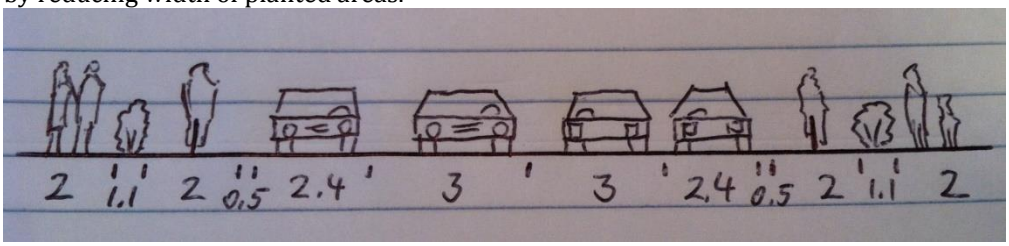

Figure 5: High Street design – Option C

Two-way protected bike lane on one side of street. Door buffer added between parked cars and bike lane (1m buffer would be better). All parking, sidewalk width and planted area width retained. Intersections need treatments to avoid collisions (signals, raised/coloured crossings).

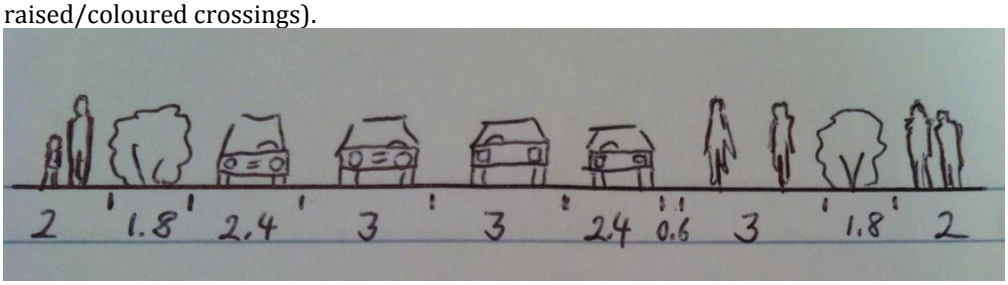

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Figure 6: Example of protected bike lanes on both sides of street with parking on one side (Carrall Street in Vancouver)

Showing mid block pedestrian crossing. Note that instead of the red bike lane marking on the right, newer designs would give pedestrians priority over people on bikes – see Figure 7. The Carrall St bike lanes are raised and separated from the sidewalks by planted areas, benches and paving stones.

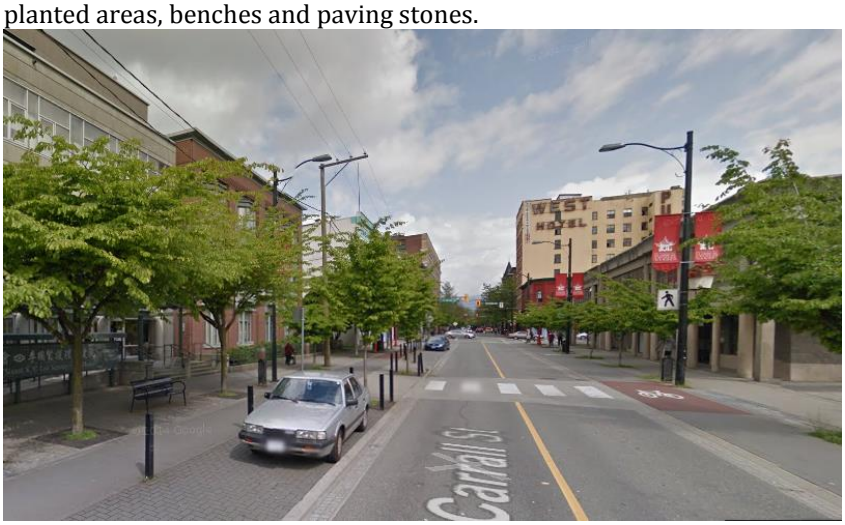

Figure 8: Example of pedestrian zebra crossing of protected bike lane (Burrard Street/Cornwall Street in Vancouver)

Figure 8: Example of protected two-way bike lane (Montreal)

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Figure 9: Example of protected bike lane on shopping street (Melbourne)

Figure 9: Example of protected bike lane on shopping street (New York City)

2. Library Lane

The proposed width of 3.5m for the shared lanes on Library Lane is too narrow for side-by-side sharing of motor vehicles and bikes, or perhaps the image shown at the January Open House is mistakenly labelled. The image suggests that a car can safely pass a bike in a 3.5m lane without crossing into the opposing lane. The Transportation Association of Canada guidelines state that for lanes less than 4.0m wide, bikes and cars need to share single file, with sharrow stencils placed in the centre of the lanes[3].

We recommend that the travel lanes be narrowed to 3m, to promote traffic calming. Lane width reductions will also yield more space for walking, plantings, street furniture or play/art elements. To further reduce vehicle speeds, and to create a sense of an open, shared street space do not mark a centre line.

[3] Transportation Association of Canada. *Bikeway Traffic Control Guidelines for Canada*. 2nd Ed. February 2012.

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If anticipated traffic volumes are too high for this suggested design, protected bike lanes are needed for Library Lane to allow people of all ages and abilities to access the street by bike.

3. Greenways

We support the proposed pedestrian/cycle greenway links in the town centre. The two paths south of 27th Street (the continuation of High Street connecting to Kirkstone Park) should separate pedestrians and cyclists to reduce user conflict. At the very least the paths should be built 4m wide. This route will be the AAA cycling connection from Lynn Valley Town Centre going south towards the highway, connecting with the City of North Vancouver's All Ages & Abilities Bike Network.

We strongly recommend that the District rework the High Street design to include protected, AAA bike lanes as recommended in the 2013 Lynn Valley Transportation Study. The currently proposed design does not reflect the stated vision of High Street as a destination and core of an active community.

The HUB North Shore Committee would be happy to discuss the suggested improvements and bike lane designs that would support the District's OCP goals. We have a once in a generation opportunity to build infrastructure into the new town centres that supports a healthy, prosperous and sustainable North Vancouver.

Sincerely,

Antje Wahl
Chair, HUB North Shore Committee
northshore@bikehub.ca

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Appendix: Recent studies on retail, transportation mode and cycling facilities

New York City found that protected bike lanes had a significant positive impact on local business strength. After the construction of a protected bike lane on 9th Avenue, local businesses saw a 49 percent increase in retail sales. In comparison, local businesses throughout Manhattan only saw a 3 percent increase in retail sales.
http://www.nyc.gov/html/dot/downloads/pdf/2012-10-measuring-the-street.pdf

In the largest study of protected bike lanes to date, nearly three times as many residents in five US cities felt that the protected bike lanes had led to an increase in the desirability of living in their neighborhood, as opposed to a decrease in desirability (43% vs 14%).
http://ppms.otrec.us/media/project_files/NITC-RR-583_ProtectedLanes_FinalReport.pdf

Portland State University researchers found that customers who arrive by bike spend 24% more per month than those who arrive by car.
http://kellyjclifton.com/Research/EconImpactsofBicycling/TRN_280_CliftonMorrissey&Ritter_pp26-32.pdf

Traveling by bike encourages more frequent stops than a car. In a study of Toronto merchants, patrons arriving by foot and bicycle visit the most often and spend the most money per month.
http://www.cleanairpartnership.org/pdf/bike-lanes-parking.pdf

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