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To Mayor and Council <mayorandcouncil@mapleridge.ca>

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Re: 2015-297-RZ; Polygon/Morningstar development Lougheed Highway/232nd Street

Mayor and Council,

Regarding the above development, we have the following remarks.

First of all, this development presented a very rare and unique opportunity for us at HUB Cycling to help ensure that, as part of this large development at close proximity to the downtown, high quality cycling infrastructure would be included in the design along two important arterials (involving the complete re-design of a section of one!), as well as the new connecting road between these arterials, **at no cost to the taxpayer.**

Seizing any potential opportunity to improve cycling along arterials is very important, especially in a community like Maple Ridge, where due to topography and lack of a grid system, cycling connectivity is very challenging to achieve.

We were thrilled to see the high level of engagement with our HUB Committee on the part of the developer, resulting in clear promises by the developer of "bike lanes throughout the development", and "many opportunities to provide feedback and suggestions throughout the development process".

As you know, at the request of the developer, our HUB Cycling Committee sent a letter of support for this development to Mayor and Council prior to Public Hearing, based on these clear promises. We were truly impressed and encouraged by this opportunity to be invited to work with this developer in order to help design a walk- and bike friendly, livable and sustainable neighbourhood.

We are happy to see that one of the promises made by the developer, i.e. physical separation of existing bike lanes on Lougheed Highway, will be fulfilled. Hopefully this will

set the stage for further such improvements along Lougheed Highway east of the Town Core, so that more of this important #UnGapTheMap gap in our cycling network is fixed, and more people can more easily and safely get around town without a motor vehicle.

Unfortunately, due to the promises made, we wrongly assumed that we would be informed of the "many opportunities" that would arise to provide further input. When we asked for an update in July, we were told that the design was already final:

232nd Street

- Only one, southbound, bike lane was part of the design along 232nd Street, with the addition of a substandard 2 meter wide multi-use path (i.e. a slightly widened sidewalk) starting from the entrance to the lawn bowling club.
- On the east side, a 2 meter wide multi-use path (again, this is basically a sidewalk which is slightly wider than normal) would be built to "accommodate" pedestrians and people on bikes.

The multi-use paths did not conform to any of the commonly used minimum standards (see attachment A).

We were told by the City that this was the chosen design because of space restrictions due to the ravine and creek on the east side, but no explanation was given why the road could not be pushed further to the west. A representative of the developer clarified that on the west side, the decision was made to maximize lot yield, which meant that no space would remain for a bike lane on the east side.

This was not what we had been promised: "bike lanes throughout the development". We raised our objections.

Swiftly, the City notified us that the design would be changed as follows:

- No cycling facility on the east side of the road
- A bi-directional 3 meter wide multi-use path on the west side of the road, from the entrance to the bowling/tennis club to Cottonwood Drive

We were told that these changes were, once and for all, final.

The result:

Northbound people on bikes (the "strong and fearless" and "enthused and confident" types) will either avoid 232nd Street, or stay on the road, sharing a narrow 3.2 meter uphill car lane with cars and trucks, resulting in potential conflict with drivers of motor vehicles. Less confident people on bikes coming from Kanaka Way will likely prefer to continue to bike on the narrow 1.5 m sidewalk on the east side, for convenience, rather than dismount at the new crosswalk at Cottonwood and then ride along the multi-use path up to just north

of the northern edge of the development, then cross this arterial again mid-block to get back to the "right" side of the road in order to continue their journey.

Southbound (downhill), people on bikes tend to move at fairly high speeds. They will find themselves sharing the path with people on foot, dogs, and other people on bikes, in both directions. Note that user conflict is most likely to occur during times of school travel.

We've been told that this multi-use facility will eventually be extended to 116 Ave. We suspect this may actually even set the stage for potential extension beyond 116 Ave.

Neither solution is satisfactory to us, however the latter is even less so than the first one:

- A bi-directional shared facility is not appropriate in this location, in an increasingly urbanized area, on a sloping arterial, and in the vicinity of two schools.
- Obviously, the shared use of a bi-directional path on a sloping road by people of all ages and abilities, with cars crossing at the new connecting collector road as well as the entrance to the bowling and tennis clubs (and possibly a new swimming pool in future?), as well as the entrance roads to existing strata developments to the south of this development, will lead to dangerous situations.
- The added inconvenience to people on bikes, having to cross this arterial twice (once mid-block) in order to use the multi-use path.
- Providing a facility on one side of the road only, leads to reduced accessibility for people on bikes, especially along arterials where opportunities to cross are infrequent, and crossing mid block adds danger.

Bi-directional infrastructure

We feel it's important to continue to raise awareness among Council members and City staff of the significant safety issues with regard to bi-directional cycling infrastructure in a more urban environment (in particular multi-use paths, which are generally less safe than bike-only infrastructure, see below). Bi-directional can work fine along more rural roads, with little traffic, and few side streets and driveways, but as pointed out, the context here is quite different.

In spite of the concerns raised on multiple occasions, we continue to see more and more bi-directional facilities added in our community along busy streets in a more urban context:

- the existing multi-use facility along Lougheed Highway between 216th Street and Laity Street, to be extended eventually all the way from 222nd Street to Maple Meadows Way (crossing major intersections at 216th, Laity, 207th and 203rd Streets, as well as various commercial- and other driveways),
- cycle track on 203rd Street between Dewdney and Golden Ears Way/128th Ave,
- 240th Street between Hill Ave. and 104 Ave,

- a planned multi-use bi-directional facility along 207th Street (we oppose this, and are awaiting the opportunity to give further feedback),
- the planned bi-directional multi-use facility on 104 Ave. (we oppose this)
- planned narrow multi-use (i.e., by definition, bi-directional) facilities along both sides of 123 Ave. between 203rd Street and Laity Street. We understand that bike lanes will also be added along part of 123 Ave., where possible. We are awaiting the opportunity to see the design and give our feedback.

A [study](#)¹ we referred to in previous correspondence, has shown that cycling in the direction opposite to car traffic is on average **eight times more dangerous** than cycling in the direction of car traffic.

It's critical to put people on bikes where drivers expect them to be.

(driving is a complex enough task as it is!).

Vélo Québec's Planning and Design for Pedestrians and Cyclists, recommends that:

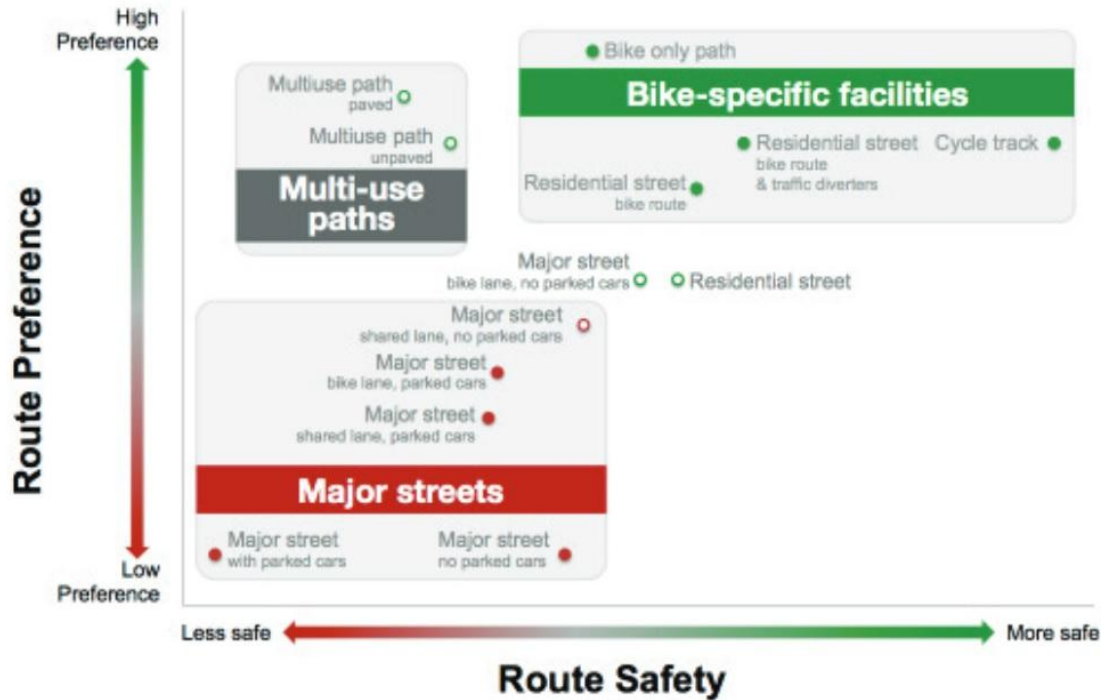
"On-road bike paths should preferably be unidirectional. Bi-directional paths offer effective safety between intersections but complicate traffic at intersections. In fact, they increase the number of conflict points between bicycles and turning vehicles."

For further reading, we recommend this article by Mikael Colville-Anderson of the Copenhagenize blog: [Explaining the Bi-directional Cycle Track Folly](#).

Multi-use vs. bike-specific

Multi-use paths improve **perceived safety**, especially for inexperienced people on bikes, but **actual safety** is worse than for bike-specific facilities:

¹ Comparing the effects of infrastructure on bicycling injury at intersections and non-intersections using a case-crossover design, Harris et al



A study by Dr. Kay Teschke et al. from UBC found a correlation between bike route preferences and actual safety. The graph shows that bike-specific routes are preferred and safer, in addition to cycle tracks, bike-only paths, multi-use paths, and residential street bike routes.

For future reference, attached are some examples of preferred uni-directional, protected bike lanes (attachment B).

Cycling network

Although the section of 232nd Street between Kanaka Way and 116 Ave. is not part of the cycling network according to the 2014 Transportation Plan, both arterials are [#UnGapTheMap](#) gaps, i.e. gaps that were identified by HUB Cycling as important gaps in our cycling network. This was the case even prior to the connecting road being added to the design of this development.

The connecting road was added to the design as a result of the suggestion made at the October 2017 Active Transportation Advisory Committee meeting by the ATAC member with a cycling interest. The intention was to provide a level, **convenient active transportation connection** between Lougheed Highway and 232nd Street.

The City decided to classify this road as a "collector" road. It's obvious that the addition of a brand new collector road will result in a change of traffic patterns.

All this would have been ample justification, in our opinion, for a review of the need to further extend the designated bike route along 232nd Street from 116th Ave. to Kanaka

Way. We have been told that such a review will not take place until the next time the Transportation Plan will be reviewed.

It's truly puzzling to our HUB Cycling Committee why such a review would only take place **after** a brand new collector road is built, when this road wasn't even in the 2014 Transportation Plan. Once 232nd Street is re-built to the design presently chosen by the City, it will be extremely unlikely that any changes will be made in future.

New connecting road

Rather than bike lanes on both sides of the road, the City opted for a multi-use facility on the north side of the road, with a traffic circle connecting to the local street into the development to the north.

As the original intention of this connecting road was to provide a **convenient, level connection for people on bikes and people walking**, one would expect this connection to be convenient for both types of users. Our HUB Committee requested the City to provide a raised crossing at the traffic circle across the local street.

We understand that instead of a convenient, relatively straight, raised crossing, people on bikes will be required to ride into the residential street to the north, on the sidewalk, get off their bikes in order to cross at the pedestrian crosswalk, and get back on their bikes on the other side of the street to ride south on the sidewalk back to the traffic circle, to be able to continue their way on the multi-use facility.

This design fails people on bikes.

In summary

In summary, our HUB Cycling Committee is very disappointed that the promises made to us were not fulfilled. If we would have known the outcome, we would not have supported this development.

Most sincerely,

Jackie Chow
HUB Cycling
Maple Ridge/Pitt Meadows Chapter

JC/BB/EoM/JL

Attachment A

Commonly used standards for Multi-Use Paths

- TAC (Transportation Association of Canada) standards:
Recommended lower limit: 3 m
Practical lower limit: 2.7 m
Absolute lower limit: 2.4 m
- [City of Vancouver's Transportation Design Guidelines](#) for AAA facilities:
Recommended minimum for bi-directional **bike lane**: 3 m
Recommends to create separate spaces for walking and cycling due to increased risk of collisions for multi-use pathways.
- Alta Planning + Design's [Rural Design Guide](#):
Recommended minimum width for side path: 2.4 - 3.6 m (2.4 m being the absolute minimum), + 1.5 m minimum roadway separation.
Roadway separation may be accommodated with the use of a physical barrier between the sidepath and the roadway. The barrier and end treatments should be crashworthy.
- AASHTO Bicycle Facilities Guide:
Recommended minimum width 10' (= 3 m). In very rare circumstances, a reduced width of 8' (2.4 m) may be used. Referenced in [ANPRM on Shared Use Path Accessibility Guideline](#), page 5/9.
- NACTO Urban Bikeway Design Guide:
Gives no recommendations for shared paths.
NACTO Urban Street Design Guide:
Same. Recommended minimum for **sidewalks**: 6' (1.8 m). Where a sidewalk is directly adjacent to moving traffic, the desired minimum is 8 feet (2.4 m).

Attachment B

Examples of uni-directional separated bike lanes



Figure 1 - 105a Ave, Surrey



Figure 2 - Example cheap parking protected bike lane with delineator posts

Delineator Posts

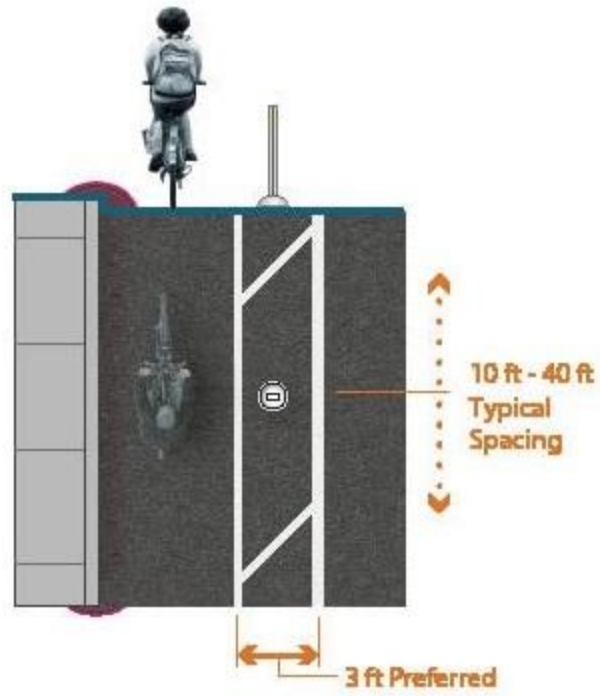


Figure 3 - cheap separated bike lane design with delineator post from US DOT Separated Bike Lane Planning and Design Guide