



ADMINISTRATIVE REPORT

Report Date: September 27, 2010  
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Meeting Date: October 5, 2010

TO: Standing Committee on Transportation and Traffic  
FROM: General Manager of Engineering Services  
SUBJECT: Downtown Separated Bike Lane Connection to Burrard Bridge and Seawall

**RECOMMENDATION**

THAT Council approve a trial two-way separated bike lane to be constructed on Hornby Street, including the use of bicycle signals, at a cost not exceeding \$3,256,000; source of funds detailed in Table 4 (page 13), including a monitoring and evaluation program with a report back to Council regarding the results.

**COUNCIL POLICY**

In 1997, Council approved the City of Vancouver Transportation Plan that identified cycling as one of the City's top transportation priorities. The Plan proposed a network of Downtown bike lanes.

In 1999, Council adopted the Bicycle Plan, which identified 12 action items to improve cycling in Vancouver, including a network of commuter and recreational bicycle routes throughout the City.

In 2002, Council approved Vancouver's Downtown Transportation Plan, which emphasized the need for safer and more convenient cycling facilities in the Downtown to provide direct connections to key destinations.

In April 2005, Council approved the Community Climate Change Action Plan that identified the critical importance of encouraging and supporting active transportation if Vancouver is to meet its greenhouse gas reduction target for 2012.

In April 2009, Council received the Mayor's Greenest City Action Team's Quick Starts Report, which recommended early actions the City can take to help Vancouver become the greenest city by 2020, including ways to increase the attractiveness of cycling, such as a network of protected bike lanes on existing bike routes.

In May 2009, Council approved a motion to proceed with the lane re-allocation trial on Burrard Bridge to enhance safety, capacity and quality of cycling across the bridge. In July 2009, the west curb lane of Burrard Bridge between Cornwall Avenue and Pacific Street and the east sidewalk was allocated to bicycles.

In October 2009, Council received the Mayor's Greenest City Action Team's strategy Vancouver 2020 A Bright Green Future which encourages the City to explore opportunities to add protected bikeways in the downtown. The Goals were approved in February 2010.

In February 2010, Council approved a separated bike lane on the Dunsmuir Viaduct and approved in principle separated bike lanes downtown to connect the Burrard Bridge and the Dunsmuir Viaduct.

On May 6, 2010, Council approved bicycle network improvement projects for 2010/2011, including separated bike lanes downtown to connect the Burrard Bridge and Dunsmuir Viaduct.

On May 20, 2010, Council approved phase one, a two-way separated bike lane on Dunsmuir Street, of a two-phase initiative to connect the Burrard Bridge and the Dunsmuir Viaduct separated bike lanes to the central business district.

### ***PURPOSE AND SUMMARY***

The purpose of this report is to seek Council approval to construct a trial two-way separated bike lane on the east side of Hornby Street, as phase two of the downtown separated bike lanes trial, complete with an evaluation and monitoring program and associated costs. This report also seeks Council's approval on the use of bike signals to implement this project in the safest way possible. This is the final phase of a two-phase initiative to connect the Burrard Bridge and the Dunsmuir Viaduct separated bike lanes to the central business district. The findings from the downtown separated bike lanes trial would inform the development of the update to the City of Vancouver's Transportation Plan and the Cycling Master Plan.

### ***BACKGROUND***

The City of Vancouver's 1997 Transportation plan identified the sustainable modes (walking, cycling, and transit) as top transportation priorities because the City's growth in population, jobs, and total trips could not be supported by existing or potential road space for vehicles. Since that plan, Vancouver has seen a 44% increase in walking, 180% increase in cycling, and 50% increase in transit, while the number of cars entering the city has decreased by 10%. The city has also seen a 27% increase in population, 18% increase in jobs, and 23% increase in total trips during the same time period. Council's policies around land use and transportation have also been essential in supporting economic growth in a vibrant downtown. If Vancouver is to continue to support the growing population and economy, more investment is needed in walking, biking, and transit.

Investing in bicycle infrastructure that attracts people to cycling is essential in order to provide road space for those that must use vehicles. The 2006 Canadian Census reported that Vancouver's bike to work mode share increased to 4%, but less than 1% of total street space in Vancouver is dedicated solely to cyclists. Cities that have a similar climate to Vancouver have invested in bicycle infrastructure and seen tremendous growth in their bike to work mode share. For example, Copenhagen (which has approximately the same number of rainy days a

year as Vancouver) has a bike to work mode share of 37% (City of Copenhagen). During the 2010 Olympic Winter Games in Vancouver, walking and cycling trips across the False Creek bridges increased from 5,000 trips per day to over 20,000 trips per day. Coupled with Copenhagen's experience, Vancouver's recent Olympic experience also suggests that there is considerable potential for increased cycling by those who are able to make this choice, regardless of the weather.

Experience from cities around the world (e.g. New York, Montreal, and Copenhagen), suggests that separated bike lanes are effective in attracting more people to cycling. Separated bike lanes are among the most requested type of bike facility in Vancouver and the UBC Cycling in Cities survey reported that Metro Vancouverites prefer separated bike lanes over on-street bike facilities (shared routes, painted bike lanes, local street bike routes). This preference is attributed to the feeling of safety of separated facilities and at least part of the reason why they attract a portion of the population who would not otherwise cycle.

To increase the attractiveness and the perception of safety of cycling and encourage more people of all ages and abilities to cycle, separated bike lanes were installed on the Burrard Bridge in July 2009, on the Dunsmuir Viaduct in March 2010 following the Olympic Games, and on Dunsmuir Street in June 2010. Since the separated bike lanes were installed on the Burrard Bridge there have been more than one million cycling trips over the bridge. Since the separated bike lanes were installed on Dunsmuir Street there have been an average of 2000 cyclist trips per day on the street.

Separated bike lanes have also been approved in principle in the downtown to connect the Burrard Bridge and the Dunsmuir Viaduct with the central business district. In the February 2010 report to Council (Separated Bike Lanes in Downtown - RTS# 8181), Thurlow, Burrard, and/or Hornby Streets were identified as potential alignments for the north-south connection between the Burrard Bridge and the central business district (Figure 1).

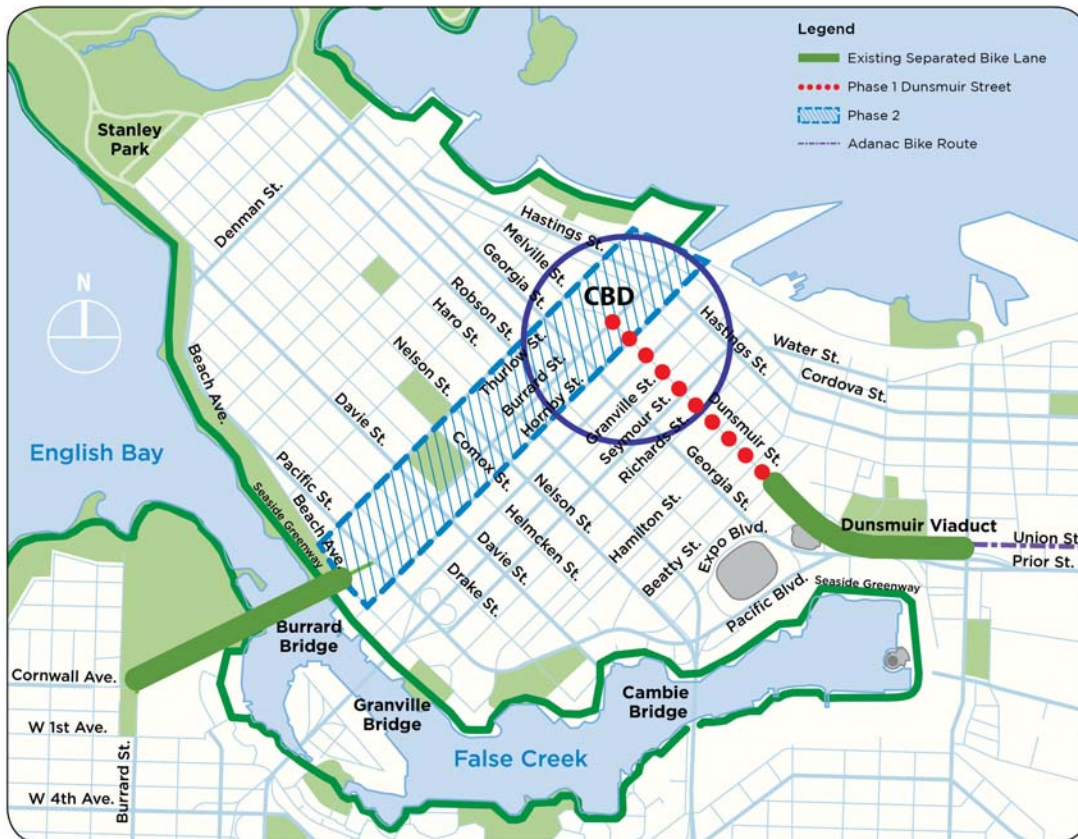


Figure 1: Existing separated bike lanes on Burrard Bridge, Dunsmuir Viaduct, and Dunsmuir Street with proposed connection to the Burrard Bridge

This facility would be the last phase of the separated bike lanes downtown trial and it would connect the Burrard Bridge and Dunsmuir Viaduct with the central business district. This separated bike lane would also connect to the Seawall which ends at the Vancouver Convention Centre on the north side of the downtown peninsula and to the Seawall on the south side of the downtown peninsula.

**DISCUSSION**

a) Route Selection: North-South Connection

Staff examined Thurlow, Burrard, and Hornby Streets to determine potential options for the north-south connection. Through the Dunsmuir Street separated bike lane consultation process, staff heard from the cycling community that Thurlow Street had little support as the alignment for a connection between the Burrard Bridge and Dunsmuir Street because it is not a direct route and it has geography that is challenging for cycling (i.e. it passes over the highest part of the Downtown Peninsula). Burrard and Hornby Streets, both already part of the cycling route network with painted bike lanes, were the preferred alignments for a north-south connection as they are direct routes, have more amenable geography to cycling, and provide good access to businesses. Appendix A includes a report from the Vancouver Area Cycling Coalition (VACC) that confirms these alignment preferences.

To complement these findings, staff examined the three streets using a comprehensive matrix analysis (Table 1). In the following table, the bold cells represent positive factors and the non-bold cells represent negative factors or potential challenges.

	Thurlow	Burrard	Hornby
Existing bike route	No	<b>Yes</b>	<b>Yes</b>
Existing peak hour bike volume	7 <sup>†</sup>	<b>46* (southbound)</b>	<b>72<sup>‡</sup></b>
Existing peak hour motor vehicle volume	2117 <sup>†</sup>	<b>932* (southbound)</b>	<b>1497<sup>‡</sup></b>
Existing transit	Yes (Melville to Pender)	Yes	<b>Minimal</b>
Existing truck route	<b>No</b>	Yes	<b>No</b>
Desired cycling route	No	<b>Yes</b>	<b>Yes</b>
On-street parking affected	Yes	Yes	Yes
On-street loading zone affected	Yes	Yes	Yes
Potential cost share	No	No	<b>Yes - Developments</b>
<sup>†</sup> February 10, 2009, count at Georgia Street and Thurlow Street between 4:50 and 5:50pm <sup>*</sup> February 5, 2009, count at Georgia Street and Burrard Street between 4:40 and 5:40pm <sup>‡</sup> March 4, 2009, count at Georgia Street and Hornby Street between 7:50 and 8:50am			

**Table 1: Matrix analysis for north-south connection**

The results of this analysis identified Hornby Street as the strongest candidate for the separated bike lane. Hornby Street is a one-way northbound street that accommodates two travel lanes, a painted northbound bike lane, and parking in both curb lanes (Figure 2). It has medium volumes of traffic, existing bike volumes, one transit stop south of Pacific, and it is not a designated truck route. Hornby Street does have parking, loading, and drop-offs permitted in both curb lanes at all times, and these functions would be impacted to some extent by implementing a separated bike lane.

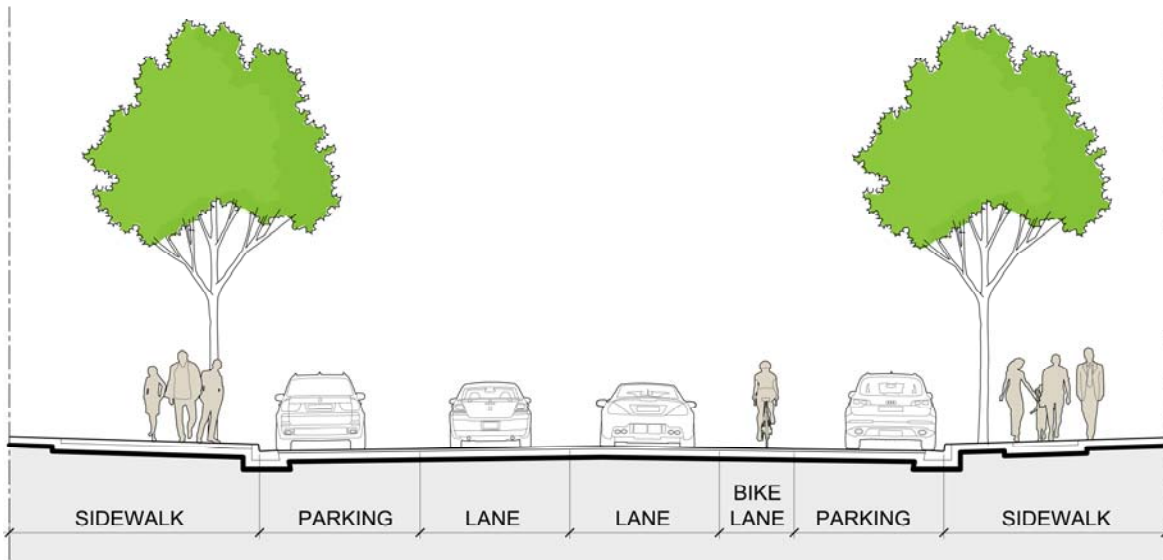


Figure 2: Existing cross-section of Hornby Street (looking north)

The proposed alignment is found in Figure 3. The connection to/from Hornby Street to the north Seawall would be along Hastings Street and Burrard Street. The connection for southbound cyclists to the Burrard Bridge would be along Drake Street and Burrard Street.



Figure 3: Proposed alignment of the separated bike lane to connect the Burrard Bridge with Dunsmuir Street and the Seawall

b) Hornby Street Design Features

As a consequence of the feedback and comparison, staff focused on developing a design for Hornby Street. The key design features are:

- Two-way Facility - Best practice appears to indicate that a two-way separated bike lane is the optimal design. Cyclists tend to use one-way facilities for two-way travel which results in more cyclist-cyclist collisions and a two-way facility requires less street space than two one-way facilities.
- East Side of Street - Staff examined both sides of the street for conflicts using the matrix analysis below (Table 2). In the following table, the bold cells represent the less challenging factors and the non-bold cells represent the more challenging factors.

	East side of street	West side of street
Maximum motor vehicle turning volumes at intersections between Beach and Hastings	1492*	1619*
Number of on-street parking spaces affected	Approximately 158	Approximately 120
Number of on-street passenger zones	9	8
Number of on-street loading and taxi zones	2	9
Number of general driveway crossings	2	5
Number of parkade and hotel entrances	4	11
Number of front door business accesses	46	71
Number of lane accesses	4	6
Number of intersections with turn restrictions already**	3 (No right turn at Smithe, Robson, and Dunsmuir)	1 (No left turn at Nelson)
* Based on the most recent PM peak hour counts ** The intersections listed would otherwise result in potential conflicts if these restrictions were not already in place		

Table 2: Matrix analysis for location of separated bike facility on east or west side of Hornby Street

The results of this analysis identified the east side of Hornby Street as the strongest candidate for the separated bike lane. The east side of Hornby Street has less impact on front door business access. It also has less potential for conflicts between turning motor vehicles and cyclists since it has fewer motor vehicle turning movements at intersections, driveway crossings, parkade and hotel entrances, lane accesses, and streets where right turns are permitted.

With the separated facility on the east side of the street, there are fewer opportunities for conflict between cyclists and motor vehicles turning right versus the facility on the west side and motor vehicles turning left. Since Hornby Street is one



way northbound, a southbound cyclist is more visible to a driver making a right turn versus a left turn because of their proximity to the turning motor vehicle.

- Type of Separation - The types of physical separation proposed are similar to those used on Dunsmuir Street: planters, parking, and medians.
- Street Space Reallocation - To implement a two-way separated bike lane on Hornby Street would require reallocation of street space from either a travel lane or a parking lane. Staff examined the impacts of removing a travel lane versus removing a parking lane on Hornby Street. The removal of a travel lane (e.g. going from two to one travel lanes) would significantly impact the capacity of the corridor north of Davie Street. Removing a parking lane from Hornby Street would result in the loss of approximately 158 parking spaces out of 244. However, there are approximately 160 metered parking spaces being reinstated along Howe and Seymour Streets as part of the buses returning to Granville Street and there are approximately 10,000 off-street parking spaces available for daily use within one block of Hornby Street.

The remaining parking lane can be located on either the east or the west side of the street (Figures 4 and 5). The proposed design places the parking lane on the side that responds best to the needs of the businesses and institutions and where loading or passenger zones currently exist on the street.

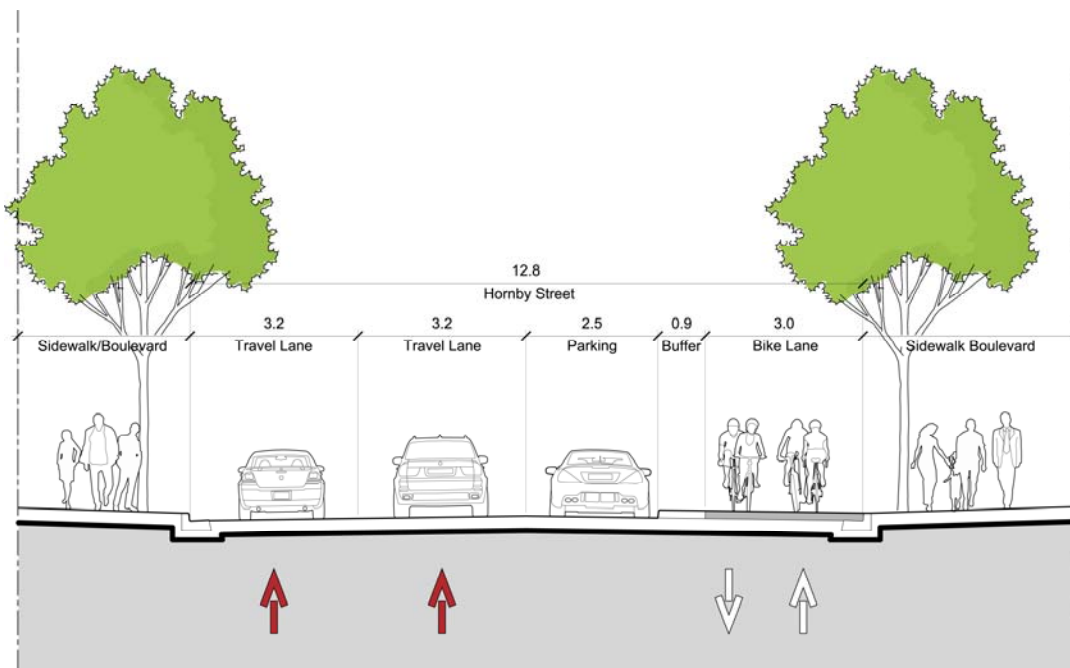


Figure 2: Proposed cross-section of Hornby Street with parking maintained next to the separated bike lane (looking north)



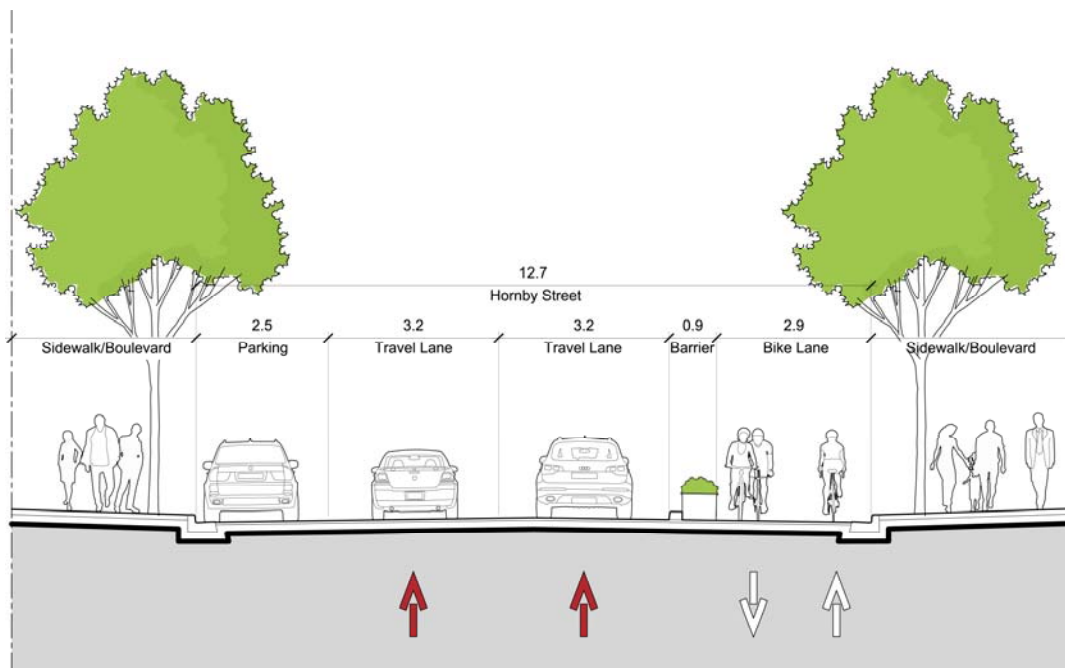


Figure 3: Proposed cross-section of Hornby Street with parking on the west side of the street (looking north)

Between Beach Avenue and Davie Street where traffic volumes are lighter, the proposed design reallocates a travel lane to the separated bike lane. The block between Beach Avenue and Pacific Street would be changed from a two-way street to a one-way street to support the travel lane reallocation.

- Intersections - The implementation of a two-way separated bike lane on the east side of Hornby Street introduces two potential conflicts between cyclists and motor vehicles: southbound cyclists against right turning motor vehicles and northbound cyclists against right turning motor vehicles. To reduce these conflicts, a combination of the following measures could be used at a signalized intersection:
  1. dedicated right turn lanes for motor vehicles,
  2. green painted cycle crossings and signage,
  3. recessed stop bars (i.e. stop bars set back more than one metre from the crosswalk),
  4. banned right turns for motor vehicles, and/or
  5. separate signals for both bicycles and turning motor vehicles.

The first three measures listed give cyclists and motorists advanced warning that there may be a conflict at the intersection, as well as providing motorists with greater visibility of cyclists at the intersection. These measures are sufficient to reduce conflicts when the volume of right turning motor vehicles is low (i.e. potential for conflict between turning motor vehicles and cyclists is low). The fourth measure, banned right turns, is only used if absolutely necessary, as it creates significant traffic management issues and can impact access to local businesses.

On Hornby Street, there are intersections which have high right turning motor vehicle volumes and there is sufficient space to provide a dedicated right turn lane. At these locations, staff recommend that motor vehicles be permitted to make a right turn without conflicting with cyclists. To do so safely requires that the turning motor vehicles have their own signal and phase, while cyclists have their own signal and phase, too. To properly and safely permit this movement, staff recommend that separate signals for both bicycles and turning motor vehicles be used.

Bicycle signals are a new traffic control device for Vancouver. They are not explained under the British Columbia Motor Vehicle Act, although the Manual of Uniform Traffic Control Devices (MUTCD) includes guidelines for bicycle signals and they are approved by the Transportation Association of Canada (TAC). Staff recommend the use of bicycle signals in this situation to provide enhanced safety for all users, to maintain circulation and access to businesses, and to follow best practices of separated bike lane implementation in other cities (Copenhagen, New York, and Montreal). Staff also recommend that bicycle signals be used for cyclists traveling counter-flow to motor vehicle traffic.

A combination of these techniques would be used along Hornby Street (as shown in the detailed block-by-block images of the proposed design at the public information sessions and online at <http://vancouver.ca/engsvcs/transport/cycling/separated/effect.htm>). Details of the configuration of each intersection will continue to be refined in response to the conditions observed at the intersections during the trial.

- Transit Stops - Two bus stops are located along the proposed route and both have undergone detailed review. There is a transit stop located on the connection to the Burrard Bridge (refer back to Figure 3), Burrard Street at Harwood Street, and a stop on Hornby Street north of Beach Avenue (C21 community shuttle service). Staff recommend that the bus stop on Burrard Street at Harwood Street be relocated north of Drake Street due to street width restrictions, safety, and motor vehicle capacity reduction. Staff are reviewing the C21 route with TransLink.

#### c) Monitoring and Evaluation

A minimum six-month trial would allow for monitoring of street operations through three seasons, a range of weather conditions, and special events. After which, a decision on a more permanent design could be made. The street lighting and curb ramps may need to be upgraded as part of the permanent configuration and this would be monitored as part of the trial.

A two-way separated bike lane on Hornby Street would provide empirical data regarding:

- The effects on motorized traffic;
- The change in cycling and traffic volumes along the corridor; and
- Any capacity or safety issues that become apparent concerning cyclists or motor vehicles.

Staff will develop a program to monitor cyclist and motor vehicle traffic, as well as have a business impact study conducted, on Hornby Street during the trial. The program would include motor vehicle travel times and volumes of motor vehicles and bicycles. As with other elements of the trial, the monitoring plan would be subject to modification as needed during the implementation period. Information collected would be used to assess the effectiveness of these measures and guide modifications.

### *CONSULTATION*

Staff launched a comprehensive public consultation process in August 2010, with follow up meetings in September recognizing that many people would be away in August. The process began with a mail-out survey (Appendix B) that was delivered to approximately 4000 businesses and residents along and near Hornby Street. (See Appendix C for memo to inform Mayor and Council of staff embarking on the public consultation for Phase 2). An online survey was also provided at this time, along with an online discussion forum on the City's website. An information session was held at the Pacific Centre rotunda on August 11, 2010, between 11am and 7pm. Two forms were provided to the public at the information session to gather feedback. One form was for Dunsmuir Street (Appendix D) and the other was the survey that had been provided in the mail-out.

Over 2300 responses were received as part of this consultation initiative. The online discussion forum had approximately 200 comments as of September 27, 2010. Approximately 200 comment sheets were received at the August 11<sup>th</sup> information session providing feedback on Dunsmuir Street (this is in addition to approximately 200 emails received since the trial began). The parts of Dunsmuir that people like best are the feeling of safety that the facility provides, the planters, the bike parking, the width of the facility and that the bike lane is bi-directional. The parts that people feel need improvement are signage and signal timing; conflicts at intersections between motor vehicles, cyclists and pedestrians; and allowing the right turn at Seymour and Hornby Streets. Looking toward Hornby Street, people are concerned with connectivity and access, impact to parking and access, impact on businesses, safety, improving communication with the public, increased congestion, and right turn capacity.

Approximately 200 surveys were received from the mail-out and at the August 11<sup>th</sup> information session. In addition to this, over 1700 responses were received through the online survey. Residents were generally most concerned with potential restrictions to right turns and wanted to see greening of the street. Businesses were generally most concerned with access to loading and/or customer access to parking, as well as wanting to see greening of the street.

Staff also held individual stakeholder meetings between July and September 2010, with the Downtown Vancouver Business Improvement Association (DVBIA), the Board of Trade, the Downtown Vancouver Association (DVA), the Bicycle Advisory Committee (BAC), and properties that may have affected loading or passenger zones along Hornby Street. In cases where issues were identified, staff had numerous meetings with individuals/groups to find acceptable solutions.

Staff hired a consultant (Mustel Group) to conduct an intercept survey along Hornby Street to assess the public opinion of the separated bike lanes downtown, specifically on Hornby Street. A random selection of 500 visitors to the Hornby Street area were intercepted and

interviewed. The survey was conducted between August 28 and September 2, 2010. The full report can be found in Appendix E.

The key findings from the survey were:

- 56% of those intercepted supported having a separated bike lane on Hornby Street, 30% were opposed, and 14% were undecided;
- Usual mode of travel was 47% walk, 35% transit, 24% vehicle, and 14% bike;
- Of the 24% who usually use a vehicle to access this area of downtown, 26% would consider cycling if there was a separated bike lane on Hornby Street;
- Most vehicle users walk more than one block to their destination, averaging in the range of two to three blocks; and
- There was a high degree of awareness of large nearby parkades found among vehicle users including those who parked on the street.

Based on the preliminary consultation, staff refined the design on Hornby Street. The current design reflects many changes that accommodate specific issues raised by individuals/groups along the corridor. This includes a different treatment for the bike lane to maintain passenger and loading zones next to the bike lane and separate signals for motor vehicles and cyclists at intersections to maintain right turns. Staff then distributed a project update via 4000 postcards to businesses and residents along and near Hornby Street in early September inviting them to a second public information session at the Pacific Centre rotunda on September 8, 2010, between 11am and 7pm, to view the refined design for Hornby Street. Concurrently, the design was posted on the City's website (available at <http://vancouver.ca/engsvcs/transport/cycling/separated/effect.htm>) with an online survey to gather feedback on the design (Appendix F). The same survey was provided at the public information session to gather feedback on the design.

There were approximately 700 people who attended the public information session on September 8, 2010. Staff received over 200 completed surveys that day and approximately 200 from the online survey. Generally, there was more than 65% support for the design features presented. However, the main issue of concern was banned right turns. Staff have refined the design to allow the right turn at Drake and Burrard Streets by relocating the separated bike lane to the south side of Drake Street and will re-evaluate the right turn ban at Hastings and Burrard once construction of the Jameson (east of Hornby Street on Hastings Street) is complete. Information will continue to be provided to the public through the City's website.

### ***FINANCIAL IMPLICATIONS***

The original estimate for the downtown separated bike lanes trial was \$3,000,000 with \$900,000 allocated for Phase 1 (Dunsmuir Street) and \$2,100,000 for Phase 2 (Hornby Street). Phase 1 was completed under budget (\$810,000) in June 2010.

The detailed estimate for Hornby Street (Phase 2) is \$3,260,000 (Table 3) and the facility is now projected to be fully constructed in 2010. The additional cost of the project is attributed to many of the changes that were made in response to the concerns raised through the consultation process (e.g. special signal work and increased passenger and loading zones next to the bike lane). The funding sources identified for the project can be found in Table 4.

Signal work	\$1,100,000
Street work	\$947,000
Planters (including soil and plants)	\$390,000
Bike corrals and parking	\$30,000
Monitoring Program and enforcement	\$93,000
Communications	\$200,000
Contingency	\$500,000
<b>Total</b>	<b>\$3,260,000</b>

Table 3: Summary of costs for Hornby Street separated bike lane

2010 Separated Bike Lanes (A4a6)	\$1,190,000
2010 Cycling Network (A4d)	\$725,000
2010 Drainage Prior to Paving (A1c2)	\$150,000
2009 Sidewalks - New and Local Improvements (A1b1)	\$200,000
2009 Sidewalk Reconstruction (A1b2)	\$200,000
2009 Drainage Prior to Paving (A1c2)	\$50,000
2006-2008 Cycling Network	\$745,000
<b>Total</b>	<b>\$3,260,000</b>

Table 4: Summary of funding sources for Hornby Street separated bike lane

The projected loss of parking on Hornby Street is 158 parking spaces. The expectation is that the loss of revenues on Hornby Street would be offset by increased parking density (higher usage) on adjacent streets and therefore results in no net revenue loss.

**IMPLEMENTATION PLAN**

Construction would begin as soon as possible following Council approval. It is estimated that the facility would be completed within 10 weeks subject to weather. Staff would commit to no construction during the Christmas period (exact dates to be confirmed with businesses in the area) to limit impact on the surrounding businesses. Staff would develop a detailed implementation plan that accommodates special events and would coordinate this work with private construction activities along the corridor. Staff would report back to Council as needed regarding the results of this bike facility.

**COMMUNICATIONS PLAN**

Reaching the potential users of Hornby Street - residents and businesses alike - with concise, easy to understand information is key to the success of the project. As such, there is a significant communications effort planned to implement this separated bike lane trial. The communication plan will provide information about:

- the goals of the initiative: attracting more people to cycling, fostering a shift towards sustainable modes of transportation, while minimizing the effects on the community and businesses;
- key information (through various modes) about construction including traffic changes and travel alternatives (especially around the downtown core) as far in advance as possible; and

- education (through various modes) in regard to the new features of this separated bike lane and its different elements, such as bicycle signals, green paint, bike boxes, etc.

The plan will also provide an opportunity for ongoing feedback which can be factored into the ongoing evaluation of the initiative and used in the development of the upcoming Cycling Master Plan and the City's Transportation Plan update. More information on the communication plan is provided in Appendix G.

### *CONCLUSION*

Staff have developed a plan for implementing a trial two-way separated bike lane on the east side of Hornby Street and linking to the existing separated facilities on the Burrard Bridge, Dunsmuir Street, and the Seawall. This separated bike facility would provide an opportunity to evaluate the attractiveness of separated bike lanes downtown, the effectiveness of various methods of managing conflict between right turning motor vehicles and cyclists at intersections, and the impact on motor vehicle capacity.

\* \* \* \* \*

# Connecting Vancouver's Separated Bike Lanes: Dunsmuir Viaduct to the Burrard Bridge VACC Recommendations May 4, 2010

The Vancouver Area Cycling Coalition was requested by the City to suggest routes for separated bike lanes to connect the existing lanes on the Dunsmuir Viaduct and the Burrard Bridge. The VACC considered who these routes should attract, and how the request fitted more comprehensive goals. We conducted an on-site assessment of potential routes.

**Targeted cyclists:** The 31 percent of the region's adults who identify themselves as regular, frequent, occasional or potential cyclists, comprising the "near market" for cycling. The Vancouver cohort is about 125,000 to 150,000 people. Their highest requests are for bike lanes separated from motor vehicles.<sup>1</sup>

**Context:** We consider these connectors the next phase of a comprehensive grid of streets with separated bike lanes that allow safe and protected access to and through downtown, have potentially excellent connections to the Seawall and major transit centres, and have the highest potential to attract more bicyclists.

**Recommended Action:** To connect the Dunsmuir Viaduct to the Burrard Bridge via separated lanes on Dunsmuir St., and on the Hornby, or Burrard corridors as summarized below and detailed in the accompanying table and maps. We recommend initial temporary construction to test feasibility, the comfort distance between cyclists and motor vehicles, and public acceptance. We note areas with special design needs. For each corridor these are acceptable routes and lane configurations, with our reasons for choosing them. Minor connecting streets are detailed in the table and shown on maps.

## East-West Corridor Recommendation

**Dunsmuir St.:** bi-directional lane between Dunsmuir Viaduct and selected southbound street. *Benefits:* Direct flow on/off the viaduct. Not hilly. Excellent connections to offices, retail, educational institutions and transit centers. Direct connections to North/South streets. Easily continued to Pender for extension to Stanley Park.

## North-South Corridor Recommendations

**Hornby:** one bi-directional lane **or** one northbound lane and one southbound lane. *Benefits:* Relatively flat. Relatively low traffic. Access to many shops, Law Courts, Robson Square, offices, Convention Centre. Good connections to the Seawall.

**Burrard St.:** two one-way lanes, northbound and southbound. Most direct route between Dunsmuir and the Burrard Bridge.



**Hornby Two 1-way or One 2-Way: VACC Recommendations for Separated Lanes from Dunsmuir Viaduct to Burrard Bridge**



**Burrard Two 1-way: VACC Recommendations for Separated Lanes from Dunsmuir Viaduct to Burrard Bridge**



Corridor	Street (Prime or Connector)	Start/ End	# of Lanes & Direction	Reasons for Recommendation	Special Design Areas
<b>Dunsmuir</b>	<b>Dunsmuir (Prime)</b>	Viaduct to most westerly southbound street	One Bi-directional	Direct flow on/off the viaduct. Not hilly. Excellent connections to offices, retail, educational institutions and transit centers. Direct connections to North/South streets. Continue to Pender for extension to Stanley Park	Burrard Bus Exchange. Bus storage on Dunsmuir. Hotel loading area on Dunsmuir.
<b>Hornby Bi-direction</b>	<b>Hornby</b>	Dunsmuir to Pacific	One Bi-directional	Access to many shops, Law Courts, Robson Square, offices, Convention Centre, Seawall.	Extension north of W. Hastings St. Connection to Waterfront Station
	<i>plus Pacific</i>	Hornby to Burrard	One East One West	Connection between Hornby and separated Burrard Bridge lanes.	
	<i>Or plus Drake</i>	Hornby to Burrard	One East One West	Alternate connection between Hornby and Burrard.	
	<i>and Burrard</i>	Drake to Bridge	One North One South	Alternate connection from bridge lanes to Hornby.	
<b>Hornby Two 1-way</b>	<b>Hornby</b>	Dunsmuir to Pacific	One North One South	Access to many shops, Law Courts, Robson Square, offices, Convention Centre, Seawall.	Counterflow lane south. Extension north of W. Hastings St. Connection to Waterfront Station
	<i>plus Pacific</i>	Hornby to Burrard	One East One West	Connection between Hornby and separated Burrard Bridge lanes.	
	<i>Or plus Drake</i>	Hornby to Burrard	One East One West	Alternate connection between Hornby and Burrard.	
	<i>and Burrard</i>	Drake to Bridge	One North One South	Alternate connection from bridge lanes to Hornby.	
<b>Burrard</b>	<b>Burrard</b>	Dunsmuir to Bridge	One North One South	Most direct north-south route.	Burrard and Pacific intersection. Bus exchange @ Melville. Bus stops. Sutton Place Hotel. Connection to Waterfront Station.





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City of Vancouver



### CYCLING IN VANCOUVER - PART OF CITY LIFE

Like other leading cities, Vancouver is taking the next steps to make cycling safer. And with more people living, working and visiting downtown, we need more commuting options.

Integrating separated bike lanes into our transportation network benefits everybody and many new cyclists and families would make cycling part of their day if there were more routes where they felt safe.

Every day, people make over 60,000 bike trips in Vancouver - 4,000 of those into downtown - the equivalent of 75 buses! The more people who cycle, the more space there is for other traffic and transit.

Cycling	Walking	Transit Use	Gasoline Sales	Vehicles Entering City
+180% 1994-2004	+44% 1994-2004	+50% 1999-2009	-7% 1999-2009	-10% 1995-2005

Most Vancouverites support our recent Transportation Plan, which places a high priority on cycling and walking.

*Vancouver's seawall is a world-famous biking/walking route.*

### WHAT ARE SEPARATED BIKE LANES?

Separated bike lanes are routes where cyclists are physically separated from traffic by a barrier. The lanes create more protection and make cyclists feel safer - especially less experienced riders - and encourage more people to get out of their cars and onto bikes into downtown.

So far, separated bike lanes have been constructed on the Burrard Bridge, Dunsmuir Street and the Dunsmuir Viaduct, where there's been a ten-fold increase in the number of people cycling.

### HOW COULD THIS AFFECT ME?

Part of the road on Hornby Street would be used to accommodate the new separated bike lane. Depending on the block, this could result in:

- modifying the number of loading zones, vehicle travel lanes and on-street parking spaces;
- introducing turn restrictions at some of the intersections.

A connected bike route through downtown with separated lanes has the potential to significantly increase the number of people who cycle downtown to their jobs, homes or for shopping or entertainment.

More cycling and walking also improves air quality downtown, where many people live.

*Cyclists should feel safe on our streets.*

*Montreal's cross-island bike lane.*

Connected bike routes make travel easier and the separation from traffic makes cyclists feel safer.

To connect the bike lanes on Burrard Bridge, Dunsmuir and the Seaside Greenway, the City of Vancouver is looking at creating a new two-way separated bike lane on Hornby Street.

**LEGEND**

- Existing downtown separated bike lanes
- Proposed Hornby Street separated bike lane
- Seaside Greenway
- Planning underway

### WHY HORNBY STREET?

The City evaluated the options for connecting the Burrard Bridge separated bike lanes to Dunsmuir and through downtown using the matrix below. Hornby Street offers the best option, including having a safe route that isn't a major bus or truck route, among other factors.

FACTORS	Thurlow	Burrard	Hornby
Existing bike route	No	Yes	Yes
Existing bike volume	Low	High	High
Existing vehicle volume	High	Medium	Medium
Existing transit	Yes	Yes	No
Existing truck route	No	Yes	No
Desired cycling route	No	Yes	Yes
On-street loading zone affected	Yes	Yes	Yes
On-street parking affected	Yes	Yes	Yes
Potential cost share	No	No	Yes
Good safety	Yes	No	Yes
Vehicle capacity less	Low	High	Medium

Factor rating: Positive Neutral Negative

**EXISTING Hornby Street**

**PROPOSED Hornby Street**

View looking north.

The Dunsmuir separated bike lane has resulted in a 400% increase in bike riders during the morning commute.

### SEAWALL TO SEAWALL

The City is considering the option of creating linked and safe bike paths across downtown which allow a two-way route in and out of the downtown core, connecting the east and west. Another natural connection is to the Seawall on either side of the downtown peninsula.

### YOUR INPUT MATTERS

Please detach and fill in the survey below and mail by Friday, August 13, 2010.

For more information about this project, visit [vancouver.ca/bikevancouver](http://vancouver.ca/bikevancouver) or phone 604.681.2222.

### WHAT'S NEXT?

- Stakeholder consultations, August 2010.
- Public information session at Pacific Centre rotunda (the corner of Howe and Georgia Street) on Wednesday, August 11, 2010, from 11 am to 7 pm.
- Revision of plan and second survey, early September 2010.
- Second public information session in mid-September (TBA) for their review.
- Presentation to Council in late September 2010 for their review.
- If approved, construction begins immediately.
- City staff continue monitoring vehicle and bicycle traffic on Hornby Street and provide information on [vancouver.ca/bikevancouver](http://vancouver.ca/bikevancouver).

### WE'D LIKE TO HEAR FROM YOU!

Please let us know a bit about yourself and what you think are the most important things to consider for the proposed Hornby Street separated bike lane.

Are you a downtown:

- Resident
- Business owner/operator which best describes your business:
  - Cafe/restaurant, retail, or service located on street level
  - Office(s) located in a multi-story building
  - Hotel/accommodation
  - Other, please describe: \_\_\_\_\_

Where is your business/residence located?

- On Hornby Street - nearest cross street? \_\_\_\_\_
- Near Hornby Street - which street? \_\_\_\_\_

Which of the following bike lane considerations are the most important to you?

Please rank the following considerations in order of importance using a scale of 1 to 3, like each number only once.

(1 = most important, 3 = least important)

- \_\_\_\_\_ greening of the street
- \_\_\_\_\_ restrictions to right-turning vehicles
- \_\_\_\_\_ access to loading zones and/or customer access to parking

Is there another bike lane consideration we've missed?  
\_\_\_\_\_

Additional comments:  
\_\_\_\_\_

May we contact you by e-mail, phone or mail?  
\_\_\_\_\_

Please detach and mail by Friday, August 13, 2010 or respond online at [vancouver.ca/hornbysurvey](http://vancouver.ca/hornbysurvey).

**THANK YOU FOR GIVING US YOUR FEEDBACK!**



ENGINEERING SERVICES  
Peter Judd, P.Eng., General Manager

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VanRIMS No.: 08-2000-20

## MEMORANDUM

July 26, 2010

TO: Mayor and Council  
Penny Ballem, City Manager

FROM: Peter Judd, General Manager of Engineering Services

SUBJECT: Downtown Separated Bike Lanes Update

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This memo is to update Council on the preliminary findings of a review of the operation of the Dunsmuir Street separated bike lane and to inform Council that staff are embarking on public consultation regarding Phase 2 of separated bike lanes downtown.

To increase the attractiveness of cycling and encourage more people of all ages and abilities to cycle, separated bike lanes were installed on the Burrard Bridge in July 2009, on the Dunsmuir Viaduct in March 2010 following the Olympic Games, and on Dunsmuir Street in June 2010. Separated bike lanes have also been approved in principle in the downtown to connect the Burrard Bridge and the Dunsmuir Viaduct with the central business district.

### Phase 1

Overall, the new separated bike lane on Dunsmuir Street has been well received. There has been a 400% increase in cycling volumes on Dunsmuir Street in the morning peak hour. Since opening the separated bike lane on June 15, 2010, staff have been monitoring the operation of the street. As a result, staff will be implementing some new measures to improve operations. Bollards will be installed on the west side of each intersection to limit turning vehicles from entering the separated bike lane. Staff will also implement a green surface treatment through intersections and lanes to raise awareness of the potential conflict between turning vehicles and cyclists. The bollards and green surface treatment will be installed in August.

Phase 2

In the February 2010 report to Council (Separated Bike Lanes in Downtown - RTS# 8181), Thurlow, Burrard, and/or Hornby Streets were identified as potential alignments for the north-south connection between the Burrard Bridge and the central business district (see Figure 1).



Figure 1: Separated bike lanes on Burrard Bridge, Dunsmuir Viaduct, and Dunsmuir Street, proposed north-south connection on Hornby Street (planning for the Helmcken-Comox Greenway is underway)

Through the Dunsmuir Street separated bike lane consultation process, staff learned that Thurlow Street had little support as the alignment for the north-south connection. Burrard and Hornby Streets, both already part of the cycling route network with painted bike lanes, were the preferred alignments for the north-south connection.

However, in order to ensure a rigorous process, staff examined the three possible routes using a comprehensive matrix analysis which included the following criteria: presence of an existing bike route, current cycling volumes, current vehicle volumes, presence of an existing transit route, presence of an existing truck route, extent of on-street loading zone and parking loss with the implementation of a separated bike lane, projected parking revenue loss, potential cost sharing with other partners, any safety challenges, and qualitative feedback from the cycling community as to the preferred route.

The results of this analysis identified Hornby Street as the strongest candidate for the separated bike lane. Hornby Street is a one-way northbound street that accommodates two travel lanes and medium volumes of traffic. It has no transit routes, is not a designated truck route, and has a painted bike lane with existing bike volumes. Hornby Street does have parking, loading, and drop-offs permitted in both curb lanes at all times, and these functions would be impacted to some extent by implementing a separated bike lane. (Note: increasingly, best practice appears to indicate that a two-way separated bike lane is the optimal design).

As a consequence of the feedback and comparison, staff are focusing on developing a preliminary design for Hornby Street. Staff will launch the public consultation process next week with a mail out survey (see attached) to be delivered to businesses and residents along and near Hornby Street. An information session will be held at the Pacific Centre rotunda on August 11, between 11am and 7pm and individual stakeholder meetings will be held throughout July and August. Based on the preliminary consultation, staff will refine the north-south separated bike lane design and present it to the public in September to solicit additional feedback.

If you have any questions or concerns, please contact me at 604.873.7303.

Peter Judd, P.Eng.  
General Manager of Engineering Services

LEH/leh



# We Want To Hear From You!



## LEARNING FROM THE DUNSMUIR TRIAL FOR HORNBY STREET

The final design for the Hornby separated bike lane may look a lot like the one installed earlier this year on Dunsmuir St.

What parts of the Dunsmuir separated bike lane trial do you like?

What parts could be improved?

Thinking of Hornby Street, what are your thoughts or concerns?

Please deposit in the feedback box provided or fax to (604) 873-7212 by August 13, 2010.

**THANK YOU FOR YOUR FEEDBACK!**



## Hornby Street Bike Lane On-site Random Survey Report

### Introduction

To assess public opinion on the topic of dedicated bicycle lanes in the Downtown area in general and Hornby Street specifically, an on-site, intercept survey was conducted among Metro Vancouver residents visiting the Hornby Street area.

### Methodology

A random selection of 500 visitors to the Hornby Street area (concentrating on the area between Georgia and Nelson Streets) were intercepted and interviewed. Non-residents of Metro Vancouver were not included in this survey.

Data collection was completed August 28 to September 2, 2010 between the hours of 11a.m. and 8p.m. with 64% of interviews on weekdays and 36% on the weekend. A copy of the questionnaire is appended.

An intercept survey of this nature is carried out in as randomly as possible a fashion. For example, steps include random selection of persons approached by interviewers, distribution of interviews across the full time period and across the study area. Although not directly applicable (since full counts of all persons travelling by all modes on Hornby Street are not available), the margin of sampling error for a simple random sample of 500 interviews is +/- 4.4 percentage points.

## Key Findings

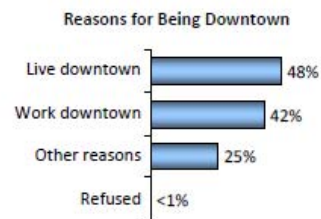
- **Sample Characteristics**

- Area of residence: City of Vancouver residents 79%, Other Metro Vancouver 21%
- Demographics: Gender balanced with 44% under 35 years of age and the balance largely 35-64 years old (50%)

	Total (500) %
<b>Live in Vancouver</b>	
Yes	79
No	21
<b>Gender</b>	
Male	50
Female	50
<b>Age</b>	
16-24	14
25-34	30
35-44	20
45-64	30
65 or better	6

- **Reason for Being Downtown**

- About half of Hornby area visitors live in the downtown area, and almost as many (42%) work downtown. Note that 15% report both living and working downtown.

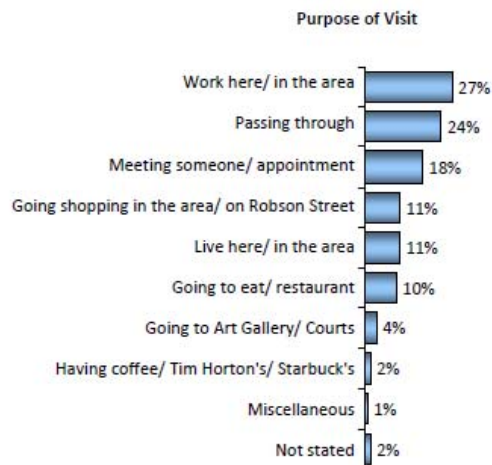


Base: Total (n=500)

Q.2) Do you: READ

- **Main purpose of Today's Visit to Hornby Street Area**

- Top reasons are work (27%), passing through (24%), meeting someone/appointment (18%) or using local retail (23% in total including shopping, dining out or going for coffee).
- Other reasons for being in the area are simply living in the area (11%) or going to the Art Gallery/ Courts (4%).



Base: Total (n=500)

Q.3) What is the main reason for your visit on Hornby Street today?  
(UNAIDED)

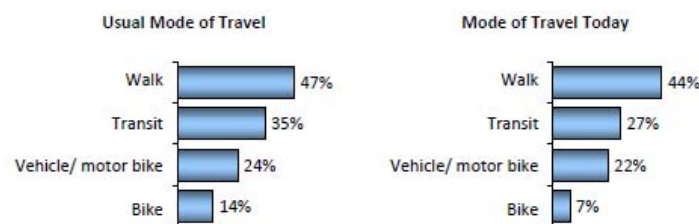
- **Frequency of Visiting This Downtown Area**
  - Most people intercepted are heavy users of the area with 60% here on a daily basis and 84% in the Hornby area at least weekly.



Base: Total (n=500)

Q.4) How frequently do you come to this area of the downtown? READ

- **Mode of Travel**
  - Usual mode to this area of downtown: A mix of modes is used, led by walking and transit (47% walk, 35% transit, 24% vehicle/motor bike and 14% by bicycle). Some people report using more than one mode (e.g., equally).
  - Mode of travel today: 44% walking, 27% transit, 22% vehicle/motor bike and 7% bicycle.
  - Weekend pattern: Walking increases significantly while transit decreases compared to the weekday pattern.



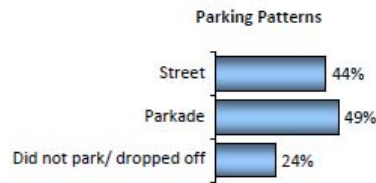
Base: Total (n=500)

Q.5a) How do you usually travel to this area of downtown? (MULTIPLE ANSWERS ACCEPTED)

Q.5b) How did you travel here today?

- **Parking**

- Among those who travel by vehicle, parkade and street parking are currently used to about the same extent (49% parkade and 44% on the street). As well, 7% were vehicle passengers who were dropped off.



Base: Total those who travelled by vehicle (n=110)

Q.6b) Did you park on the street or in parkade?

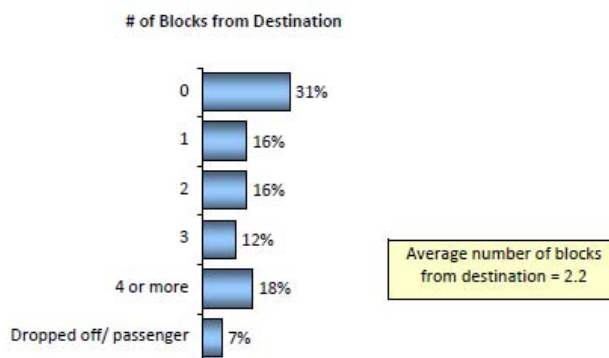
- Most vehicle users are aware of large parkades nearby (84% aware in total, including 79% of those who park on the street).



Base: Total those who travelled by vehicle (n=110)

Q.6c) Are you aware of any of the large parkades nearby?

- About one-in-three vehicle visitors park less than one block from their destination.
- About one-third park 1-2 blocks away and again as many 3 or more blocks away (30%).
- On average, vehicle visitors currently park just over 2 blocks away—regardless if in a parkade or on the street. When excluding those who parked less than one block from their destination, the average is just over 3 blocks away (3.3).



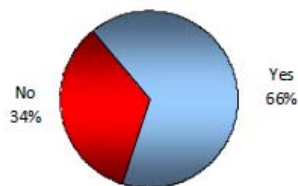
Base: Total those who travelled by vehicle (n=110)

Q.6a) How many blocks did you park from your destination?

- **Awareness of Proposed Hornby Bike Lane**

- A majority of area visitors surveyed are aware of the bike lane proposal (66%).
- Awareness increases with age (47% of those under 35 years, growing to about 80% among middle-aged and older visitors).

Awareness of Proposed Bike Lane



Base: Total (n=500)

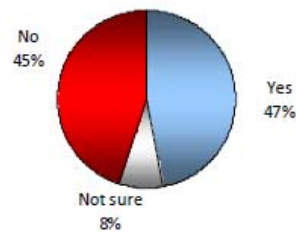
Q.7) Have you read or heard anything about the proposed Hornby bike lane?



- **Cycling to Hornby via Protected Bike Lane**

- Visitors to the area are divided in terms of their willingness to consider cycling to Hornby if there was a protected bike lane in place (47% yes, 45% no, 8% unsure).
- Somewhat more likely to consider cycling than their counterparts are younger residents (58%), City residents (52%), Downtown residents (53%) and of course, current cyclists to the area (85% of usual cyclists, 68% of those who cycled today).
- Also of interest, a number of vehicle users would consider cycling if there was a protected lane—30% of today's vehicle travelers and 26% of those who usually travel to the Hornby area by vehicle.

Willingness to Consider Cycling

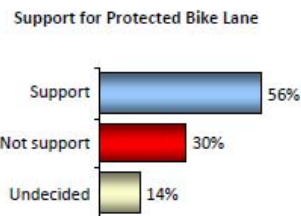


Base: Total (n=500)

Q.8) Would you consider cycling to Hornby if there was a protected bike lane in place?

- **Support for Protected Bike Lane on Hornby**

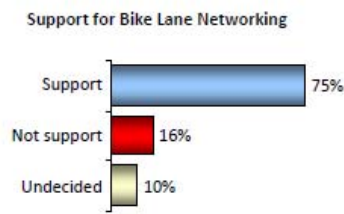
- Over half of area visitors support a protected bike lane on Hornby (56%)—significantly outweighing those opposed (30%) and the undecided (14%).
- Among those with an opinion, the majority support the lane.
- Support easily outweighs opposition regardless of the frequency of visiting the Hornby area.
- Support is similar regardless of whether the visitor is a Downtown resident, a Downtown worker or is in the area for other reasons.
- Those under 35 years of age are most likely to support (70%).
- Those who would consider cycling to Hornby with a protected bike lane broadly support the idea (85% vs. 28% of those who would not cycle).
- Vehicle users to the area are least likely to support (35% vs. 52% not in support).
- Those who had heard of the proposal prior to the survey are less supportive, suggesting possible negative publicity (47% supports vs. 73% of those with no prior knowledge).



Base: Total (n=500)

Q.9) Overall do you support or not support having a protected bike lane on Hornby?

- **Support for a Bike Lane Network Linking Downtown from East and West**
  - Support is even stronger for a Downtown bike lane network linking east and west with a substantial majority in favour (75%, growing to 86% among those under 35 years of age).
  - Even vehicle users to the area tend to support a downtown east-west bike lane network (56% of usual vehicle travelers to the Hornby area and 61% of today's vehicle travelers).



Base: Total (n=500)

Q.10) Overall do you support or not support a bike lane network that links the downtown area from east and west?

## Summary

- On the whole, visitors intercepted on Hornby are more likely to support having a protected bike lane on Hornby Street than to oppose it and by a significant margin.
- Although vehicle users have a tendency to not support this bike lane (52%), about one-quarter of those who usually bring a vehicle to the area would consider using a protected bike lane, indicating room for some shift from vehicle use.
- Currently, most vehicle users do walk more than one block to their destination, averaging in the range of 2-3 blocks.
- As well, a high degree of awareness of large nearby parkades is found among vehicle users, including those who parked on the street.



MUSTEL GROUP

DATE: \_\_\_\_\_  
 IN       OUT

Interviewer: \_\_\_\_\_

### Hornby Street Intercept Survey

Hello. We are conducting a very brief opinion survey on behalf of the City of Vancouver. I'm \_\_\_\_\_ of Mustel Group, a professional polling research firm. (IF NEEDED: Be assured we are not selling or soliciting anything.) (CONFIRM 16+)

1. First of all, do you live in the City of Vancouver?
  - 1 Yes
  - 2 No
  
2. Do you:
  - 1 Live downtown or in the West End
  - 2 Work downtown
  - 3 Or are in the downtown area for other reasons?
  
3. What is the main reason for your visit on Hornby Street today? PROBE FOR BUSINESS NAME/TYPE OF BUSINESS IF APPROPRIATE  

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4. How frequently do you come to this area of the downtown?
  - 1 Almost every day
  - 2 2-3 times a week
  - 3 About once a week
  - 4 2-3 times a month
  - 5 About once a month
  - 6 Less often
  
- 5a. How do you usually travel to this area of downtown?
  - 1 Transit
  - 2 Bike
  - 3 Walk
  - 4 Vehicle/Motor Bike
  
- b. How did you travel here today?
  - 1 Transit
  - 2 Bike
  - 3 Walk
  - 4 Vehicle/Motor Bike
  
6. IF TRAVELLED BY VEHICLE ASK Q.6:
  - a. How many blocks did you park from your destination? #: \_\_\_\_
  
  - b. Did you park on the street or in parkade?
    - 1 Street
    - 2 Parkade
  
  - c. IF STREET: Are you aware of any of the large parkades nearby?
    - 1 Yes
    - 2 No

7. Have you read or heard anything about the proposed Hornby bike lane?
  - 1 Yes
  - 2 No
  
8. Would you consider cycling to Hornby if there was a protected bike lane in place?
  - 1 Yes
  - 2 No
  - 3 NOT SURE
  
9. Overall do you support or not support having a protected bike lane on Hornby?
  - 1 Support
  - 2 Not support
  - 3 UNDECIDED
  
10. Overall do you support or not support a bike lane network that links the downtown area from east and west?
  - 1 Support
  - 2 Not support
  - 3 UNDECIDED

Finally, just to make sure our study includes a mix of people.

A. GENDER: (OBSERVE)

- 1 MALE
- 2 FEMALE

B. Into which of the following categories may I place you? READ LIST

- 1 16-24 years
- 2 25 -34 years
- 3 35 to 44 year
- 4 45 to 64 years
- 5 65 or better

C. DAY OF INTERVIEW:

- 1 WEEKDAY
  - 2 WEEKEND
- 

VERIFICATION: In case my supervisor needs to verify that I completed this survey, may I please have  
Just your first name or initials \_\_\_\_\_ and your telephone # \_\_\_\_\_

*On behalf of Mustel Research Group, thank you very much for your input! Have a nice day!*



## Hornby St. Separated Bike Lane Design Feedback Form

1. Please choose all that apply

I am a:

- Resident of downtown
- Resident of Vancouver who does not live downtown
- Resident of a city outside Vancouver
- Downtown business owner
- Employee who works downtown

2. What is your primary mode of transportation?

- Car, truck or van — as driver
- Car, truck or van — as passenger
- Public transit
- Walk
- Bicycle
- Motorcycle
- Other method

3. What is your age group?

- 24 or younger
- 25 to 34
- 35 to 44
- 45 to 54
- 55 to 64
- 65 or over

4. Were you aware that the City will reinstate approximately 160 on-street parking spaces on Howe and Seymour Streets?

- Yes
- No

**SOUTH SECTION**

**A. Seaside Bike Route to Pacific St. (Please see corresponding board)**

1. To maintain on-street parking, City staff have recommended that Hornby Street become one-way between Beach and Pacific Street. Do you support this decision?

- Yes
- No

2. Do you have specific concerns about the design on this block? (Please see the Seaside to Pacific board)

- Yes – please specify: \_\_\_\_\_  
\_\_\_\_\_
- No

**B. Pacific St. to Davie St. (Please see corresponding board)**

City staff have recommended banning motor vehicles from turning right as the street does not have enough width to accommodate a right turn lane. This is required in order to have the safest right turning movement for vehicles.

1. Do you support banning motor vehicles from turning right from Drake to Burrard?

- Yes
- No

2. To maintain two-way vehicle traffic on Drake Street between Burrard and Hornby, City staff have recommended to remove parking. Do you support this decision?

- Yes
- No

City staff have recommended banning motor vehicles from turning as the street does not have enough width to accommodate a right turn lane. This is required in order to have the safest right turning movement for vehicles.

3. Do you support banning motor vehicles from turning right from Burrard to Pacific?

- Yes
- No

4. To maintain parking and passenger/loading zones, do you support removing a travel lane on Hornby Street?



- Yes
- No – please specify: \_\_\_\_\_  
\_\_\_\_\_

5. Do you have specific concerns about the design on this block (Pacific to Davie)?

- Yes – please specify: \_\_\_\_\_  
\_\_\_\_\_
- No

**MID-SECTION**

**A. Davie St. to Nelson St. (Please see corresponding board)**

1. To maintain two travel lanes, City staff have recommended removing parking on the west side of Hornby. Do you support this decision?

- Yes
- No

City staff have recommended banning motor vehicles from turning right as the street does not have enough width to accommodate a right turn lane. This is required in order to have the safest right turning movement for vehicles. Helmcken Street is also a future Greenway.

2. Do you support banning motor vehicles from turning right at Helmcken to maintain parking near the intersection?

- Yes
- No

3. Do you have specific concerns about the design on this block (Davie to Nelson)?

- Yes – please specify: \_\_\_\_\_  
\_\_\_\_\_
- No

**B. Nelson St. to Robson St. (Please see corresponding board)**

1. To maintain two travel lanes on Hornby Street, City staff have recommended removing parking from the east side. Do you support this decision?

- Yes
- No

2. Do you have specific concerns about the design on this block (Nelson to Robson)?

- Yes – please specify: \_\_\_\_\_  
\_\_\_\_\_
- No

**MID-SECTION CON'T...**

**C. Robson St. to Dunsmuir St. (Please see corresponding board)**

1. In order to allow all motor vehicle movements (left, straight and right), City staff have recommended removing parking at the intersection of Georgia and Hornby. Do you support this decision?

- Yes  
 No

2. To maintain two travel lanes, City staff have recommended removing parking on the east side. Do you support this decision?

- Yes  
 No

3. Do you have specific concerns about the design on this block (Robson to Dunsmuir)?

- Yes  
 No

**NORTH SECTION**

**A. Dunsmuir St. to Hastings St. (Please see corresponding board)**

1. To maintain two travel lanes, City staff have recommended removing parking from the east side of Hornby Street. Do you agree with this decision?

- Yes  
 No

2. Do you have specific concerns about the design on this block (Dunsmuir to Hastings)?

- Yes – please specify: \_\_\_\_\_  
\_\_\_\_\_
- No

**B. Hastings St. to Canada Pl. (*Please see corresponding board*)**

City staff have recommended banning motor vehicles from turning right as the street does not have enough width to accommodate a right turn lane. This is required in order to have the safest right turning movement for vehicles.

1. Do you support banning motor vehicles from turning right from Hastings to Burrard?

- Yes
- No

2. Do you have specific concerns about the design on this block (Hastings to Canada Place)?

- Yes – please specify: \_\_\_\_\_  
\_\_\_\_\_
- No

<b>FINAL COMMENTS</b>
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1. Do you support the proposed Hornby Street separated bike lane?

- Yes
- Yes, with reservations
- No

2. Do you have any additional comments you would like to add regarding the proposed Hornby separated bike lanes?

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### *COMMUNICATIONS PLAN*

It is important to have a strong communications component on a project involving a major transportation route into downtown - which has implications for public transportation, commuting, and surrounding businesses.

The communication plan will:

1. provide the public with key information via the use of mass media, localized information and the web about construction, including traffic changes and travel alternatives
2. clearly present the goals of the initiative: to attract more people to cycling and foster a shift in sustainable modes of transportation
3. provide the public with the opportunity to generate ongoing feedback which can be factored into the ongoing evaluation of the initiative
4. provide the public with key information via the use of mass media, localized information, and the web about the new bike facility and its elements (e.g. bike boxes, bicycle signals, green paint, traffic pattern changes, etc.)

Additional specific objectives of the communication plan are to:

1. encourage the use of the downtown separated bike lanes, including on Hornby Street, for residents and visitors who want to take advantage of the convenient access to many key amenities downtown
2. motivate more residents to use the downtown separated bike lanes as part of their normal commute to and from work
3. encourage motorists to consider alternatives for commuting or traveling to destinations along Hornby Street, and change routes by providing information on nearby alternative routes
4. encourage unaccompanied motorists to consider alternatives such as car pooling or trying sustainable modes instead

The activities and tactics listed below provide a general overview of the key elements of the information campaign. These include, but are not limited to:

1. Community and media event (e.g. maximizing opportunities to encourage sustainable commuting choices through promotional events and other significant opportunities)
2. Paid media campaigns (based on an analysis of the most cost-effective strategies for reaching target audiences and working with Communications - i.e. radio, online, print for downtown commuters, etc.)
3. Broad media-relations activities that include a news release to launch the project when the report goes to Council, pitched media stories, ongoing spokesperson availability, and rigorous issues management
4. A customized suite of web pages which engage and provide information through diagrams and online video(s) (vancouver.ca and RoadAhead)
5. Social media, such as tweets, facebook, and a moderated blog commentary
6. Collateral material development, which may include community posters and testimonials from bike lane users

### *TIMELINE*

The timeline is to be finalized, but will be aligned with key milestones approved by Council.

*BUDGET*

Wherever possible, the public education and awareness costs would be leveraged through partnership arrangements with community, advocacy, corporate, or other agencies. A maximum of \$120,000 would be made available for the communication surrounding construction activities. A maximum of \$20,000 would be made available for development of the on-line video. Approximately \$60,000 would be available for project management and event support, as well as for advertising to support the public information goals for the project. This brings the total budget allocation for a public information campaign to \$200,000.