



CITY OF VANCOUVER

ADMINISTRATIVE REPORT

Report Date: October 15, 2008
Contact: Donny Wong
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VanRIMS No.: 08-2000-20
Meeting Date: October 28, 2008

TO: Standing Committee on Transportation and Traffic
FROM: General Manager of Engineering Services
SUBJECT: Canada Line Station Precinct Improvements

RECOMMENDATION

- A. THAT Council approve the proposed improvements at Canada Line Station precincts, as outlined in Tables 1 through 10, to be coordinated with the road restoration following construction of Canada Line Rapid Transit Stations. The estimated cost is \$2,392,800 with City funding of \$2,102,450 to be provided from existing capital budgets approved for the Cambie Street Restoration and the Traffic Signals program and the balance from External sources.
- B. THAT Council adopt the Cambie Village Public Realm Guidelines to necessitate future private redevelopments in the Cambie Village area to conform to these streetscape standards creating a consistent look for the area over time.
- C. THAT Council approve an increase of \$3,817 in annual operating budget for maintenance of new signs and pavement markings commencing in 2010 and subject to annual budget review.

GENERAL MANAGER'S COMMENTS

This report presents a comprehensive package of pedestrian, bicycle, and visual improvements for Cambie Street and the Canada Line Station precincts that have either already been approved and built, or are subject to approval by Council in this report.

As Cambie Street has been turned back to the City following the construction of the Canada Line, Engineering Services crews have been working to restore the street and to implement these improvements.

The improvements to Cambie Street are not only significant relative to the disruption that the Canada Line construction project has caused along this route, but they also represent a marked upgrade to the Street from the preconstruction condition.

I have been very pleased with the quality and workmanship of the restoration work carried out by City crews and we have received much positive feedback from residents and members of the public in this regard. We look forward to the turnover of the few remaining sections of the project and completion of our restoration work.

In a separate report Council is being asked to approve an Olympic Legacy project to add an artistic pedestrian lighting project in the Cambie Village area. This project is not included in this report and is funded separately however the electrical conduit to facilitate this project has been installed as part of the ongoing work.

COUNCIL POLICY

On June 26, 2007, Council approved a northbound bike lane on Cambie Street from West 49th Avenue to West 29th Avenue.

On October 19th 2006, Council approved a number of road related improvements to be coordinated with Cambie Street road restoration including implementing northbound and southbound bike lanes from Kent Avenue North to 49th Avenues, installation of pedestrian bulges at 17th and 18th Avenues, installation of a planted centre median, elimination of right turn channel at the intersection of King Edward Avenue and Cambie and minor roadway widening to improve safety from 49th to West 29th Avenues.

On May 13th, 2003, Council reiterated its support for a Richmond/Airport-Vancouver (RAV) rapid transit line as a key element in helping the City achieve its environmental, transportation and livability objectives as part of a comprehensive, carefully-developed, adequately-funded, long-term, regional strategic transportation plan. It was also approved that good bicycle access be provided at all stations and that providing bicycle access to and on the new Fraser River transit bridge be considered.

PURPOSE

The purpose of this report is to seek Council approval for the implementation of improvements adjacent to and in the vicinity of Canada Line Rapid Transit stations, also referred to as station precincts, and to adopt public realm guidelines through the Cambie Village business area, from King Edward Avenue to West 12th Avenue. These improvements will maximize the amenity of the rapid transit line by providing better connectivity for pedestrians, cyclists, and transit passengers.

BACKGROUND

The Canada Line Rapid Transit project in Vancouver consists of

- Twin underground tunnels from Waterfront Station in downtown Vancouver under Granville Street, Davie Street, False Creek, and Cambie Street to 64th Avenue;
- An elevated guideway from south of 64th Avenue across the Fraser River to Bridgeport Station in Richmond;
- A bus loop at Marine Drive; and
- A total of 9 stations (and 2 future stations) along the Vancouver portion of the route.

Canada Line construction in Vancouver began in October 2005 with a single worksite on Cambie Street, beside Queen Elizabeth Park. Since then, up to 2000 Canada Line construction workers have been building tunnel and stations at any given time. To date, ninety-nine percent of the tunnel segments are complete and the entirety of the overhead guideway, south of West 64th Avenue is complete. Construction of Canada Line stations is progressing on schedule and it is anticipated that the remainder of Cambie Street will be turned over for the City's final road restoration by the spring of 2009.

The Canada Line Project is generally responsible to reinstate any City infrastructure that is impacted by their construction activities. As a result, opportunities have been reviewed to design and implement improvements to Cambie Street in coordination with street restoration to realize a cost savings on City initiated improvements. While the Canada Line Project is responsible for the basic restoration of the roadway, the City is responsible for the incremental costs to implement improvements over and above preconstruction conditions.

DISCUSSION

Recommendations for Council approval relating to

- 1) Station Precinct Improvements (including bicycle parking at stations), and
- 2) Adoption of public realm guidelines for Cambie Village (Cambie Street, King Edward Avenue to West 12th Avenue,

are described below.

Station Precinct Improvements

Since the inception of the Canada Line Rapid Transit Project, Engineering Services and Planning staff have reviewed the Canada Line corridor (Cambie Street, in particular) to identify improvements to the pedestrian, bicycle and road networks that would be timed with road restoration and save costs. Between station sites, many improvements to the Cambie Street corridor have previously been approved by Council and have already been constructed as they were coordinated with road restoration following Canada Line tunnel construction. These improvements, beyond the routine replacement of aging infrastructure, include pedestrian bulges, bicycle lanes on Cambie Street, and road safety improvements such as intersection normalizations, roadway super-elevations and the introduction of landscaped medians.

The focus at stations has been to plan improvements to maximize the amenity of the transit system and integrate each station into their various distinct, mature neighbourhoods.

The proposed improvements are located in the immediate vicinity of stations and will be implemented once Canada Line stations are backfilled and surface restoration begins.

A review of each Canada Line Rapid Transit Station area was undertaken to identify improvements to be coordinated with the final restoration of the neighbouring intersections and streets. The improvements were focussed on:

- Providing convenient access to and from station entries for pedestrians,
- Allowing connections for transit passenger transfers between bus and train,

- Facilitating convenient cycling access to and from the station, including extending the City's bikeway network to the stations,
- Focussing any emerging vehicle traffic generated by passenger pick up and drop off activity at stations, onto major arterials, and
- Protecting residential parking near stations to avoid the use of City Streets as "park and ride" facilities.

The review for protecting residential parking at Canada Line stations is currently underway and Council approval for associated parking improvements will be sought at a later date, if necessary. That being said, the improvements below are presented for Council approval and are presented by station from south to north.

Each section begins with a brief description of neighbourhood context followed by a graphical representation of all improvements in and around the station. A descriptive table accompanies each graphic that identifies the approval status of each improvement as some initiatives were previously approved by Council. Previously approved initiatives have been included as part of the descriptions to provide a comprehensive view of neighbourhood integration and connectivity by pedestrians, transit passengers, cyclists and motor vehicles.

Marine Drive Station and Tunnel Portal

Marine Drive Station, the only elevated station in Vancouver, is located on the southeast corner of Southwest Marine Drive and Cambie Street on the former ICBC site. As part of the Canada Line, a new bus loop will be constructed, south of the station as the new terminus for five bus routes; Cambie/Downtown, Granville/Downtown/UBC, Main/Downtown, Oak/Downtown and Airport/22nd Avenue Station bus routes.

Marine Drive Station is located partially on City street right-of-way and partially on the former ICBC site. As a result Cambie Street, south of Marine Drive will be narrowed significantly to accommodate the station.

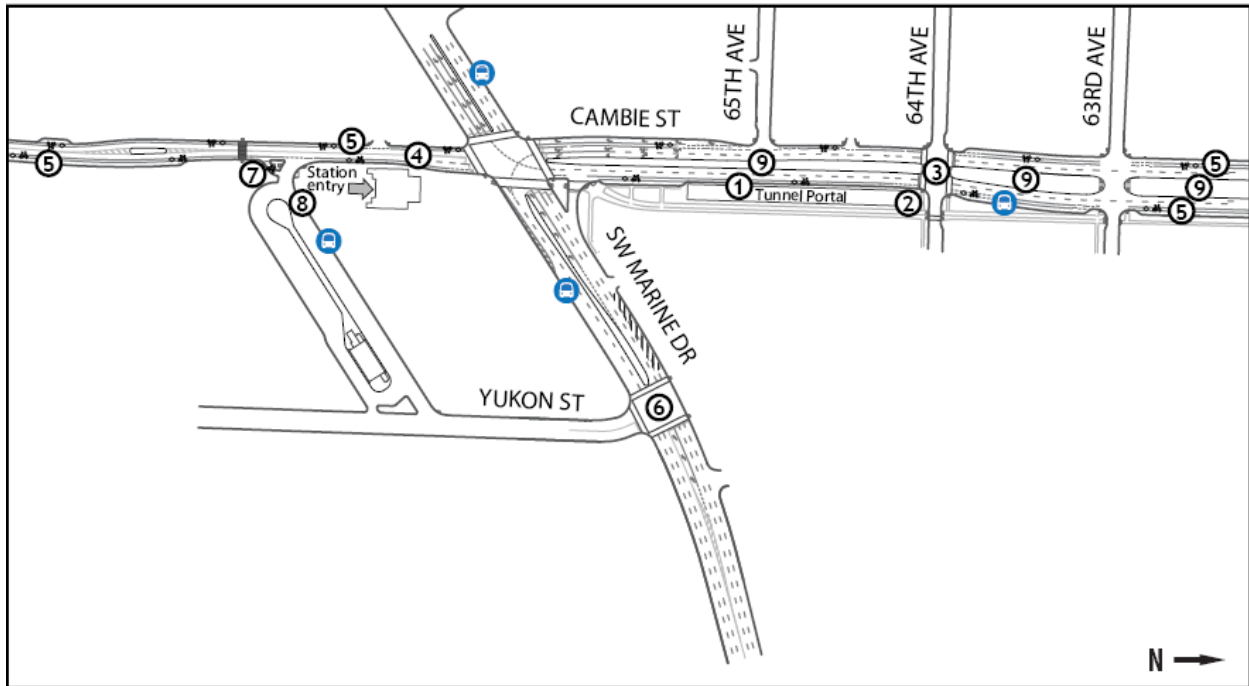
The Canada Line tunnel portal is located on the east side of Cambie Street, approximately between West 64th and West 65th Avenues.

Improvements recommended for Council approval are pictured in the graphic below and listed in Table 1.

Marine Drive & Tunnel Portal - Summary of Improvements

MARINE DRIVE STATION & TUNNEL PORTAL

STATION AREA IMPROVEMENTS





Note: Landscaping (ie. trees) has been removed for clarity

LEGEND
 Passenger/HandyDART drop-off zone
 Bus stop

Table 1 - Marine Drive Station Area Improvements

Marine Drive Station Improvements		Status	
1	The location of the tunnel portal and station has resulted in shortened crosswalks across Cambie Street and a shift of Cambie Street to the west	Complete - Canada Line Project Cost	
2	The requirement for a six metre fire lane created an opportunity to implement a wide sidewalk and off-street bike path east of the portal. This off street bike path leads from SW Marine Drive to West 63 rd Avenue and provides connections to the Ontario and Heather Street Bikeways	Complete - Canada Line Project Cost	
3	Pedestrian and bicycle crossings across 64 th Avenue are facilitated by a raised crosswalk and bike path, and a new pedestrian controlled signal funded by TransLink.	Recommended for Council approval	
4	Cambie Street, north of Marine Drive narrowed, providing shortened crosswalks and additional crossing time north-south	Recommended for Council approval	
5	As part of a previous Council decision, bicycle lanes northbound and southbound have been approved on Cambie between Kent Avenue North and 49 th Avenue	Approved by Council in 2007, construction complete	
6	A new semi-actuated traffic signal and intersection normalization at the intersection of Yukon Street and SW Marine Drive will facilitate bus and truck movements, provide	Complete	

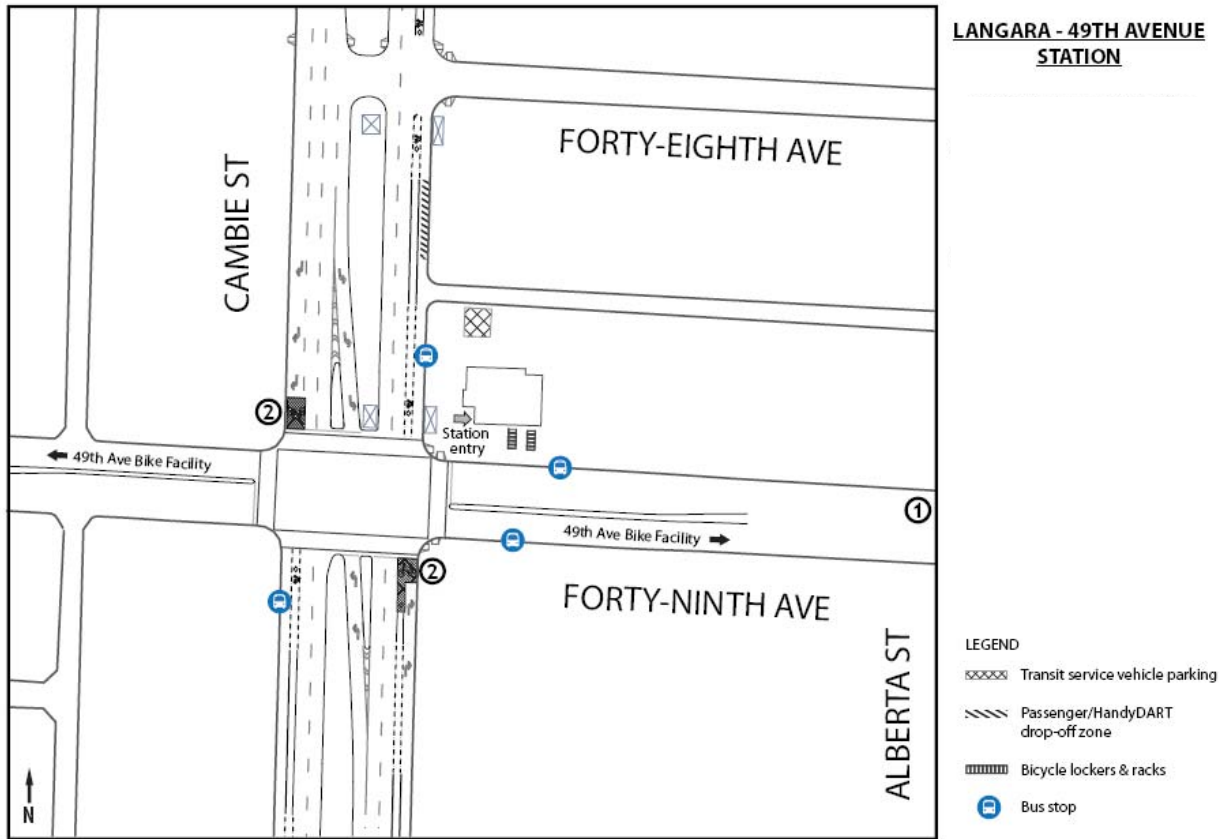
	pedestrian access, helping to minimize the traffic volumes on Cambie Street, south of Marine Drive		
7	A new bicycle lane access to the station will be incorporated at the bus loop exit on Cambie Street.	Recommended for Council approval	
8	A new mid-block pedestrian crossing, south of the bus loop exit will provide pedestrian access to the station and bus loop by residents and employees of businesses on the west side of Cambie, south of SW Marine Drive	Recommended for Council approval	
9	A new planted median reinstated between SW Marine Drive and 64 th Avenue has been introduced to replace the Cambie Heritage Boulevard.	Complete - Canada Line Project Cost	

Langara - 49th Avenue Station

Langara - 49th Avenue Station entry is located on the northeast corner of Cambie Street and West 49th Avenue. It is situated in a single family residential neighbourhood and will serve area residents as well as Langara College, South Slope YMCA and Punjabi Market, to the east.




Proposed improvements in this station area recommended for Council approval are pictured in the graphic below and listed in Table 2.

Langara - 49th Avenue Station - Summary of Improvements



Note: Landscaping (ie. trees) has been removed for clarity

Table 2 - Langara - 49th Avenue Station Area Improvements

Langara - 49 th Avenue Station Improvements		Status	
1	New Pedestrian Controlled Traffic Signal Alberta and 49 th Avenue	Approved by Council as part of the 2006 Traffic Signal Program, installed in 2006	
2	Northbound bike lane and southbound bike lane south of 49 th Avenue	Approved by Council in 2007, construction complete	
2	Two Bike boxes to facilitate bicycle movements, to and from station	Council approval requested for funding	

Oakridge - 41st Avenue Station

Oakridge - 41st Avenue Station entry is located on the southwest corner of Cambie Street and West 41st Avenue, wholly within the Oakridge Mall plaza. This station is expected to be a major connection point for transit passengers transferring between the Canada Line and the express bus service on 41st Avenue, in addition to serving Oakridge Mall, residences and commercial retail and healthcare services in the area.

Proposed improvements in this station area recommended for Council approval are pictured in the graphic below and listed in Table 3.

Oakridge- 41st Avenue Station - Summary of Improvements

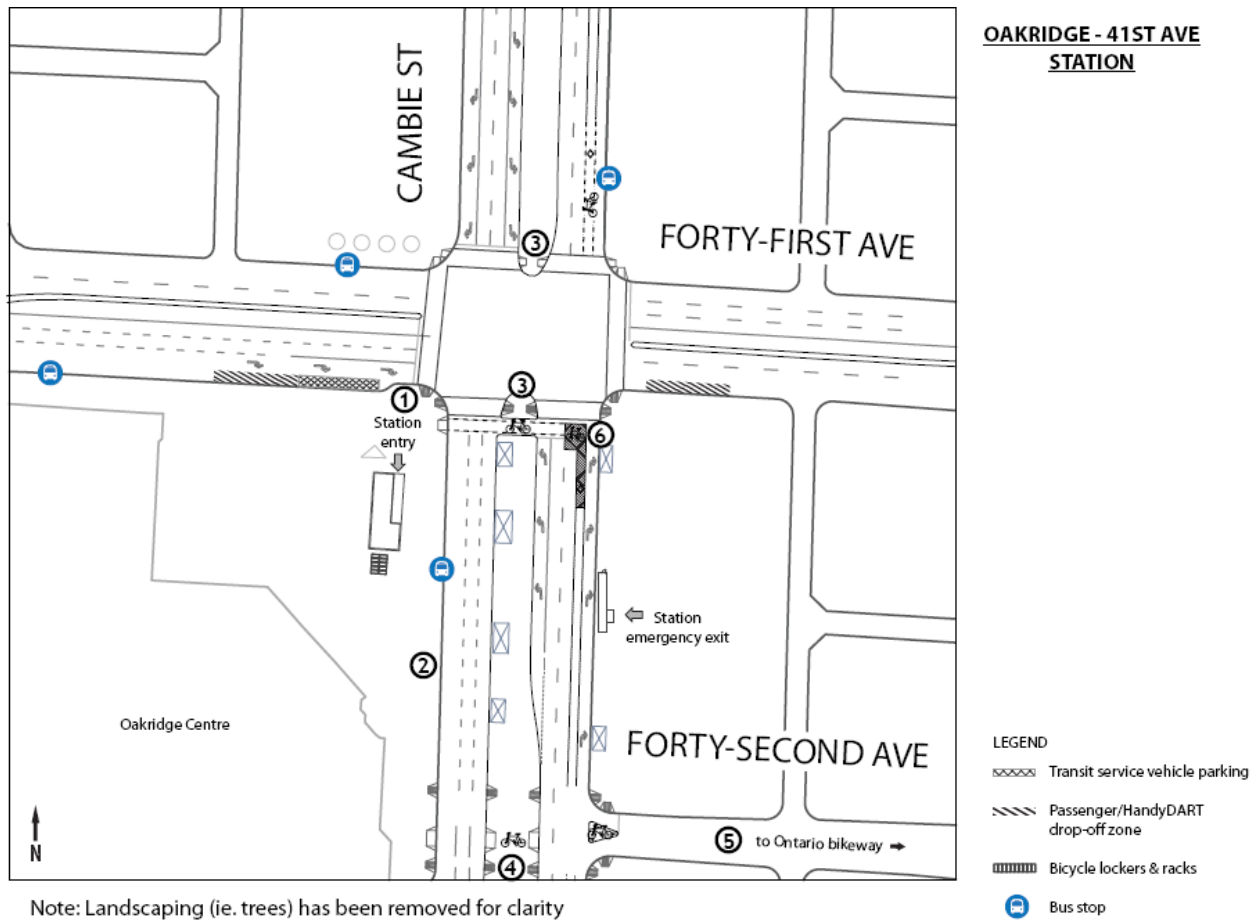


Table 3 - Oakridge - 41st Avenue Station Area Improvements

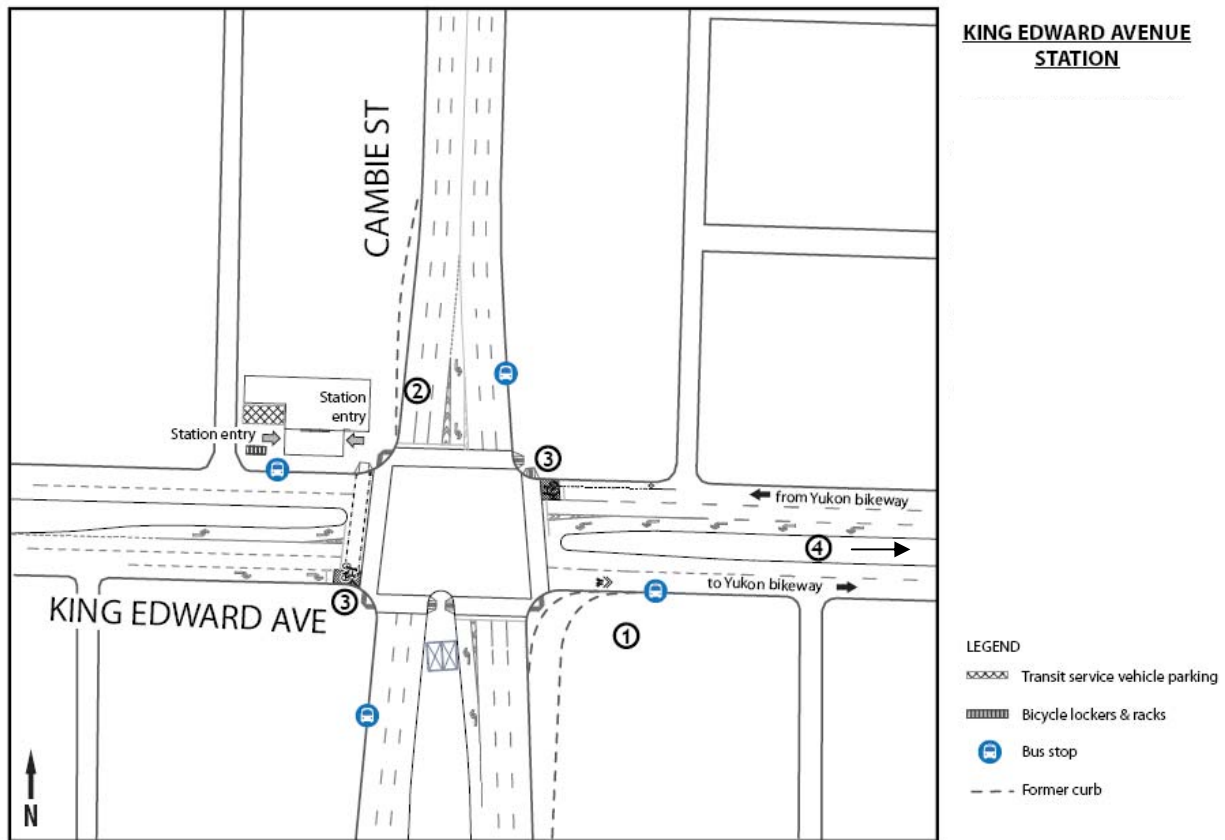
Oakridge - 41 st Avenue Station Improvements		Status	
1	New pedestrian bulge at the southwest corner of Cambie and 41 st Avenue	Recommended for Council approval	
2	Sidewalk widening/road narrowing, Cambie 41 st to 42 nd	Recommended for Council approval	
3	Centre median extensions to provide pedestrian rest area across Cambie	Recommended for Council approval	
4,5	Extension of Ontario Bikeway to station	Recommended for Council approval	
6	New bicycle crossing and bicycle box for cyclists exiting station	Recommended for Council approval for funding	

King Edward Avenue Station

King Edward Avenue Station entry is located on the northwest corner of Cambie Street and King Edward Avenue. The station entry is situated on zoned land and has been designed to be overbuilt as part of a future development. It is located at the south end of the Cambie Village business area on a commercial block generally in a single family residential neighbourhood.

Proposed improvements in this station area recommended for Council approval are pictured in the graphic below and listed in Table 4.

King Edward Avenue Station - Summary of Improvements



Note: Landscaping (ie. trees) has been removed for clarity

Table 4 - King Edward Avenue Station Area Improvements

King Edward Avenue Station Improvements		Status	
1	Elimination of right turn channel at the southeast corner of King Edward	Approved by Council 2006. Construction by end of 2008	
2	Sidewalk widening/road narrowing, Cambie, north of King Edward	Recommended for Council approval	
3	New bicycle boxes at King Edward and Cambie	Recommended for Council approval for funding	
4	Bikeway extension and median improvements on King Edward, Yukon to Cambie	Detailed design and costing underway, request for Council approval anticipated in 2009	

Broadway - City Hall Station

The Broadway - City Hall Station entry is located on the southeast corner of Broadway and Cambie Streets. It will serve as the main station used by those who live and work in the Fairview neighborhood, City Hall Campus, and the hospital precinct. It will also serve as a significant transit connection between both express and local bus services on Broadway and as a connection to a future rapid transit extension along the Broadway corridor.

Proposed improvements in this station area recommended for Council approval are pictured in the graphic below and listed in Table 5.

Broadway - City Hall Station - Summary of Improvements

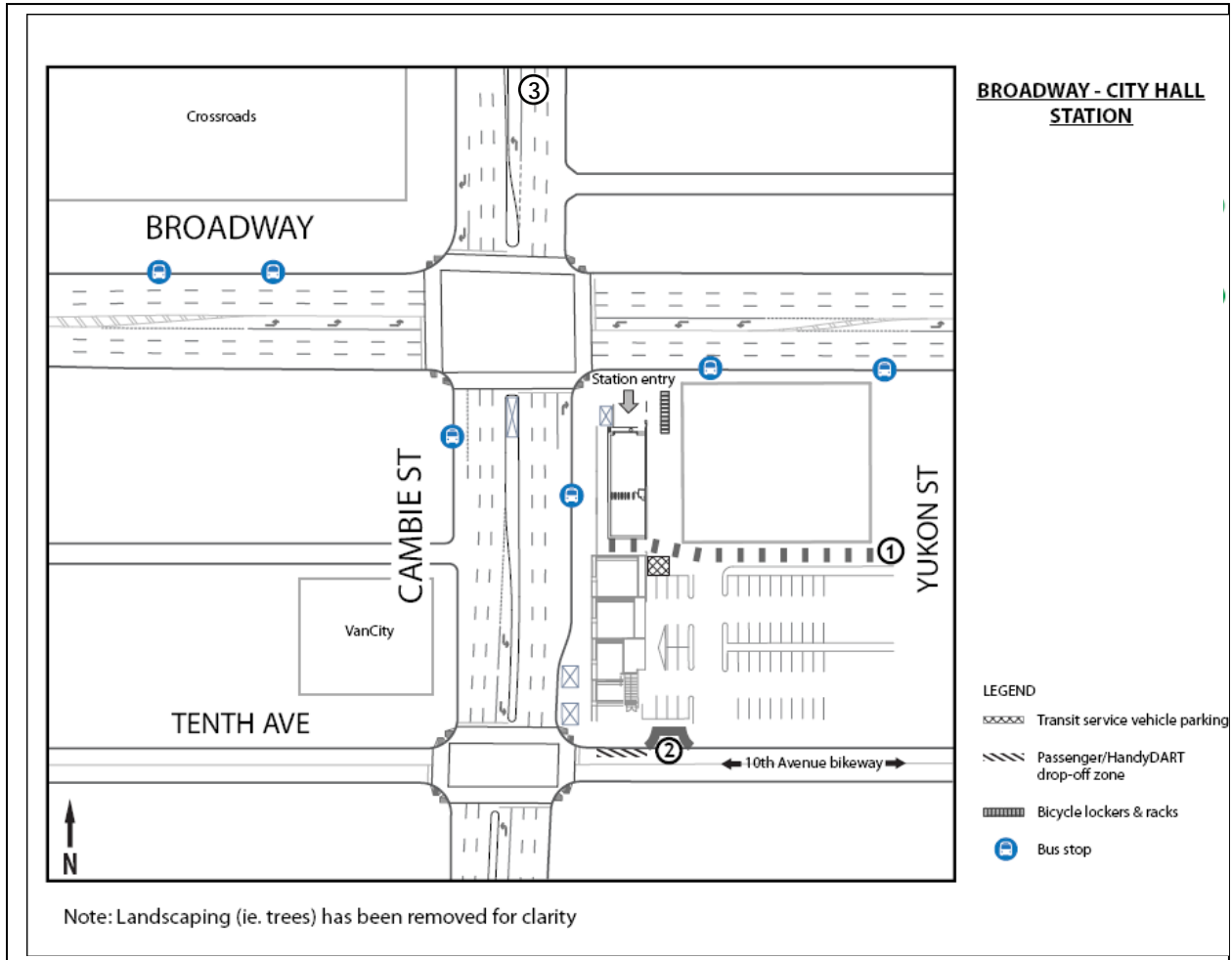


Table 5 - Broadway Station Area Improvements

Broadway-City Hall Station Improvements		Status	
1	Yukon bikeway extension, using lane south of Broadway	Recommended for Council approval	
2	New bicycle ramp to provide bicycle access to station from 10 th Avenue Bikeway	Recommended for Council approval	
3	New traffic signal at intersection of West 8 th Avenue and Cambie Street	Recommended for Council approval	

Olympic Village - 2nd Avenue Station

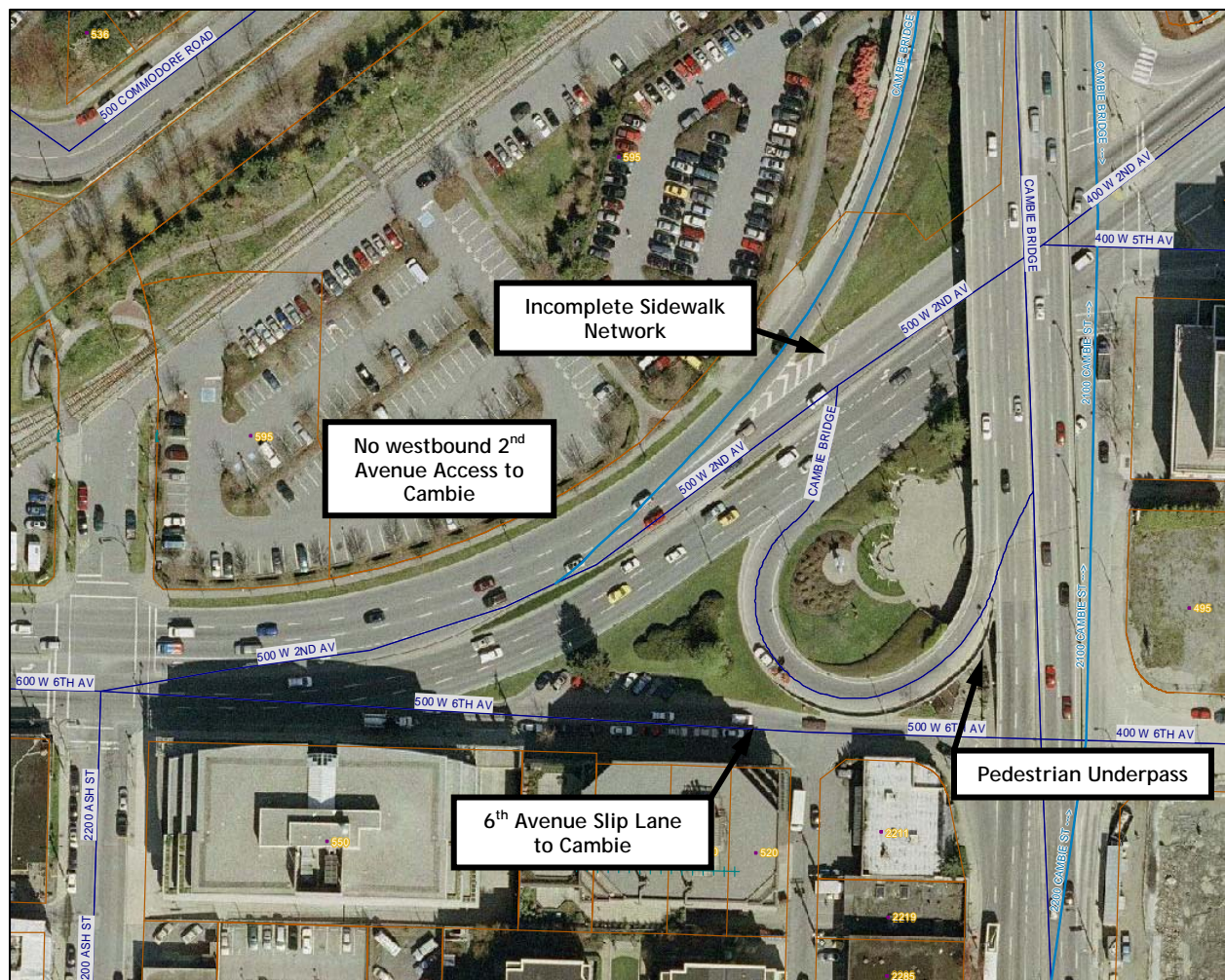
The Olympic Village - 2nd Avenue Station entry is located on the north side of 2nd Avenue between Cambie and Ash. This station serves the expanding commercial uses at the north end of Cambie Street as well as the mature residential neighbourhoods of False Creek South,

Fairview Slopes, and future developments at Southeast False Creek. It will also be a connection to bus service on 6th Avenue to UBC and a future streetcar station.

The impacts of station construction have been significant to the area. Both eastbound and westbound off-ramps at the south end of the Cambie Bridge have been removed for construction and will be replaced as a Canada Line project cost. Pre-construction conditions, as shown in the aerial photo below, presented a less than ideal pedestrian environment where sidewalks were discontinuous, interrupted by sweeping, merging off-ramps and a pedestrian underpass.

Proposed improvements in this station area recommended for Council approval are pictured in the graphic below and listed in Table 6.

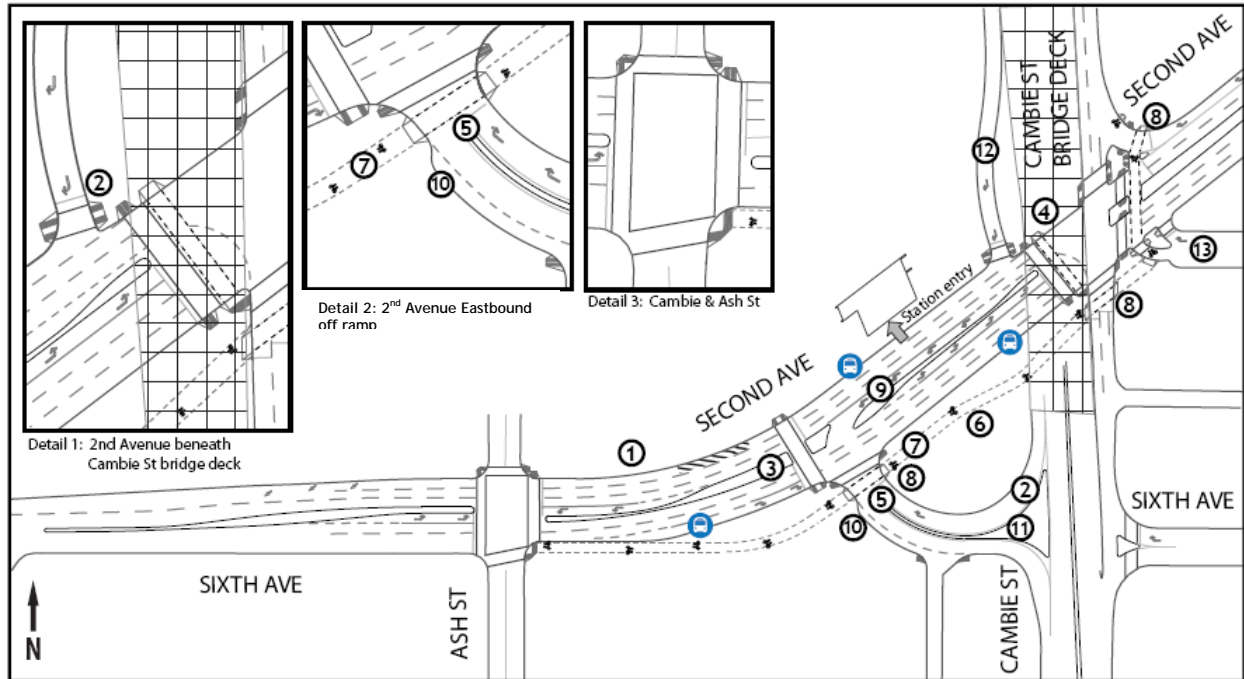
Pre-construction Conditions on 2nd Avenue, Cambie to Ash Streets



Olympic Village - 2nd Avenue Station- Summary of Improvements

OLYMPIC VILLAGE - 2ND AVENUE STATION

STATION AREA IMPROVEMENTS






Note: Landscaping (ie. trees) has been removed for clarity

Please see the following page for a detailed description of Station Area Improvements

- LEGEND
- Passenger/HandyDART drop-off zone
 - Bus stop

Table 6 - Olympic Village - 2nd Avenue Station Area Improvements

Olympic Village-2 nd Avenue Station Improvements		Status	
1	Sidewalks are introduced to both sides of 2 nd Avenue to complete pedestrian access	Recommended for Council approval	
2	Cambie Bridge offramps will be reinstated with traffic signals controlling movements onto 2 nd Avenue to facilitate pedestrian access	Recommended for Council approval	
3	New wider planted medians will be introduced on 2 nd Avenue, complete with a pedestrian refuge	Recommended for Council approval	
4	Pedestrian crosswalk at Cambie shortened and roadway narrowed with new pedestrian bulge into 2 nd Avenue	Recommended for Council approval	
5	6 th Avenue slip lane to Cambie Street reconfigured to use new signal and reduce vehicle speeds	Recommended for Council approval	Safety
6	New landscaped plaza	Recommended for Council approval	
7	New off-street bike path on the south side of 2 nd Avenue connects bikeway network to the station and new wide sidewalk on the east side of Cambie Bridge	Recommended for Council approval	
8	Dedicated bicycle crossings will be painted across 2 nd Avenue at the Cambie and 2 nd Avenue intersection and across the eastbound offramp	Recommended for Council approval	
9	New left turn westbound 2 nd Avenue to Cambie Street allowing direct arterial to arterial connections. This allows the shortening of the existing left turn bay from 2 nd to Ash and reduces vehicle traffic on dedicated	Recommended for Council approval	

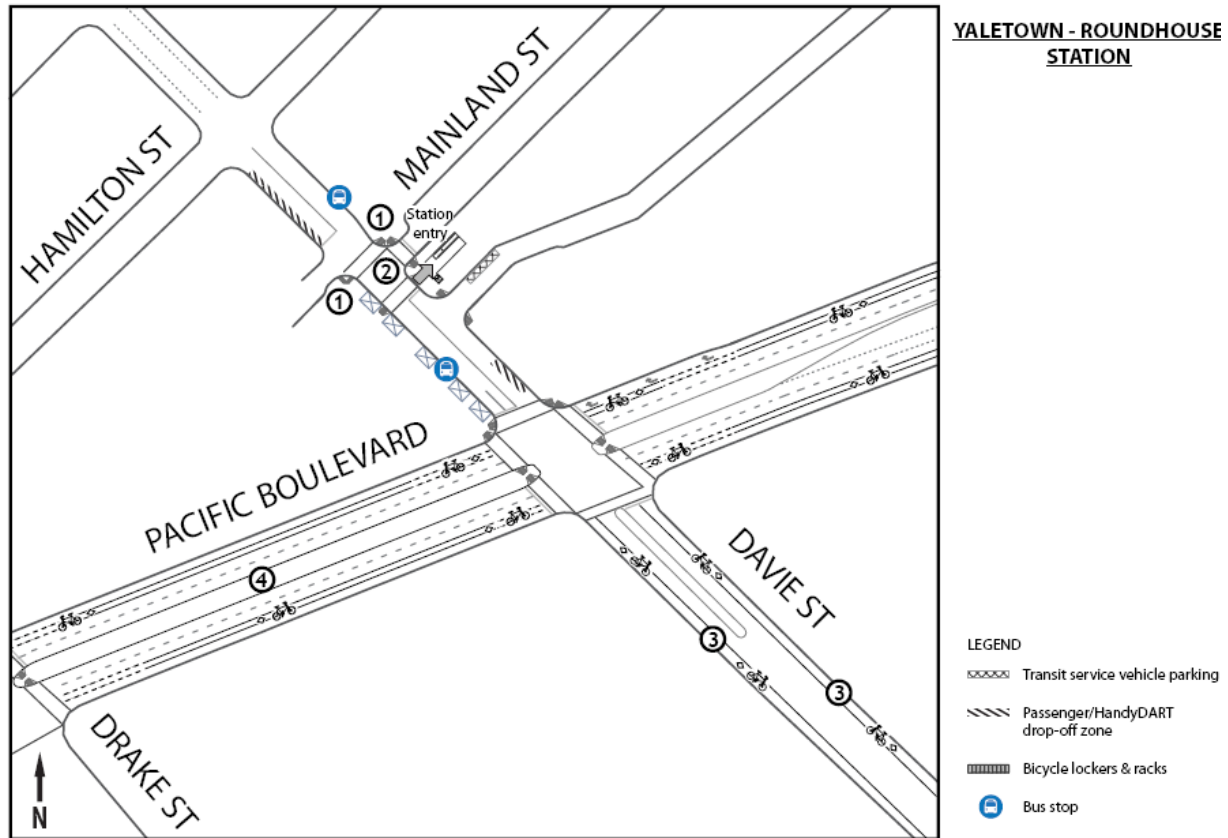
	bikeways on Yukon and Ash streets		
10	Passenger zone located on the reconfigured 6 th Avenue access to Cambie provides business and clinics with drop off capability	-	Safety
11	Pedestrian underpass has been eliminated and replaced with sidewalks at grade	Complete - Canada Line Project Cost	
12	The new westbound offramp will incorporate a section of widened sidewalk as recommended by the False Creek Crossings Study	Recommended for Council approval	
13	5 th Avenue, between Cambie and Yukon Streets will be permanently converted to one-way westbound operation to provide a two-way bicycle connection, improve safety and provide angled parking for the Vancouver Police Department	Concept previously approved by Council. Recommended for Council approval for funding of permanent installation	

Yaletown-Roundhouse Station

Yaletown - Roundhouse Station entry is located at Mainland and Davie on the south end of Bill Curtis Plaza. This station serves the Yaletown neighbourhood which has grown rapidly from a warehouse district to a mixture of art galleries, retail stores, offices and high density residential developments. This station also provides connections to False Creek and to the Roundhouse Community Centre.





Proposed improvements in this station area recommended for Council approval are pictured in the graphic below and listed in Table 7.

Yaletown Station - Summary of Improvements



Note: Landscaping (ie. trees) has been removed for clarity

Table 7 - Yaletown Station Area Improvements

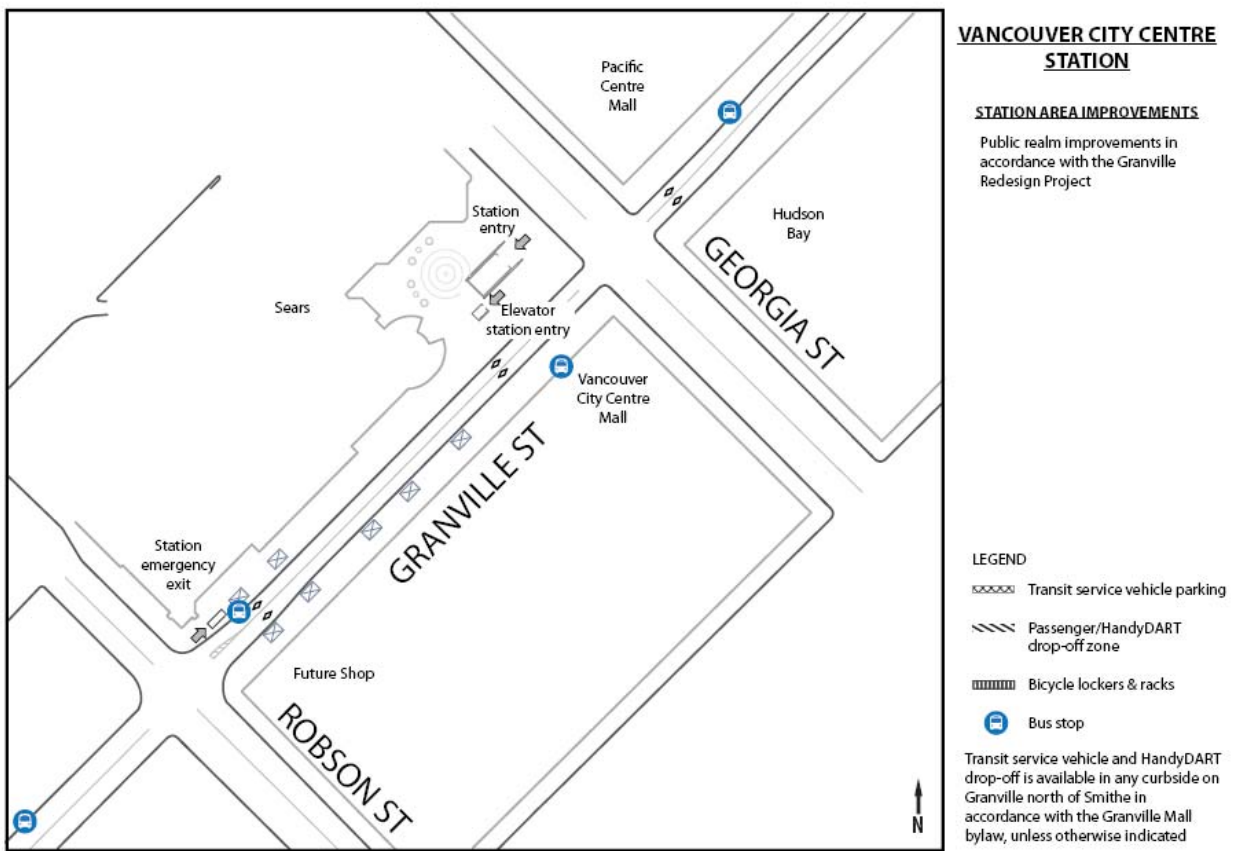
Yaletown Station Improvements		Status	
1	Intersection redesigned to include pedestrian bulges, pedestrian crosswalks and a new traffic signal	Recommended for Council approval	
2	Redesign of wheelchair ramp to current accessibility standards	Recommended for Council approval	
3	Bike Lanes on Davie from Pacific Boulevard to Marinaside Crescent	Recommended for Council approval	
4	New landscaped centre median on Pacific Boulevard between Drake and Cambie, as per the Pacific Boulevard Great Streets Design	Concept previously approved by Council. Detailed design and costing underway, request for Council approval anticipated in 2009	

Vancouver City Centre Station

The projected ridership at Vancouver City Centre Station is the second greatest amongst the Vancouver Canada Line stations resulting from its proximity to the Central Business District and popular shopping destinations in the area. The station will also feature direct underground connections to both Pacific Centre and Vancouver Centre shopping malls.


Improvements to the immediate surroundings of the station will be provided by the Granville Redesign project currently underway and will result in generous sidewalks and an enhanced public realm. As such, no additional improvements have been proposed in this station area.

Vancouver City Centre Station - Summary of Improvements



Note: Landscaping and surface treatments (Granville Redesign) have been removed for clarity

Table 8 - Vancouver City Centre Station Area Improvements

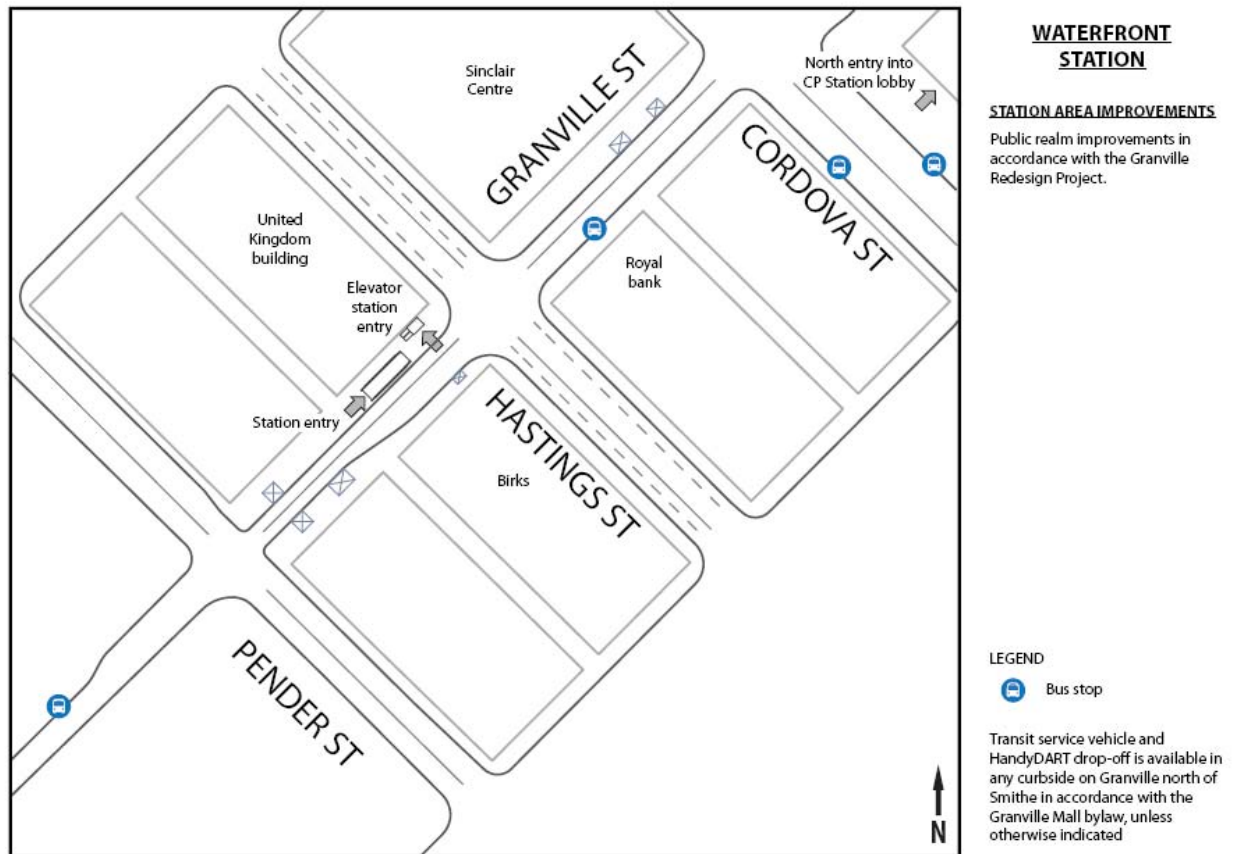
Vancouver City Centre Station Improvements	Status	
Public realm improvements in accordance with the Granville Redesign project	underway	

Waterfront Station

The projected ridership at Waterfront Station is the greatest amongst the Vancouver Canada Line stations. This is a direct result of its proximity to the Central Business District as well as its connection to Waterfront Station which serves as the connection point between numerous modes of transportation including the Expo Line and Millennium Line rapid transit, bus services, rail passenger services (West Coast Express, future streetcar), ferry services (local, regional, inter-regional), and air transportation (seaplanes and helicopter). This station will also serve the Vancouver Convention Centre and cruise ship terminal. It is also expected that this will be a popular station for passengers destined to the airport.


Improvements to the immediate surroundings of the station will be provided with the Granville Redesign project currently underway and will result in generous sidewalks and an enhanced public realm. As such, no additional improvements have been proposed in this station area.

Waterfront Station - Summary of Improvements



Note: Landscaping (ie. trees) has been removed for clarity

Table 9 - Waterfront Station Area Improvements

Waterfront Station Improvements	Status	
Public realm improvements in accordance with the Granville Redesign project	underway	

Bicycle Parking

The Canada Line project will provide bicycle parking facilities in the form of secure bike lockers, generally rented on a 3 month renewal basis. There is an interest by the City to complement this supply with a number of short term bicycle parking spaces in the form of bicycle racks. Working with TransLink, an analysis of the bicycle parking demand anticipated at Canada Line stations was conducted. This analysis was based on occupancy rates experienced at Expo Line and Millennium Line stations. Through this analysis, it is recommended that a total of 21 bicycle racks (6 bikes per rack) be installed at Canada Line stations in Vancouver, as indicated in the table below. The specific locations of the bicycle racks will be determined by available sidewalk space and/or landscaped area adjacent to the station. Where space is limited, bike racks may be located curb side on the street, replacing a parking space.

Table 10 - Bicycle Racks for Canada Line Stations

Station	Number of Racks Required (6 bikes per rack)	TransLink Secure Bike Lockers	Total Bike Parking
Waterfront	4	0	24
City Centre	3	0	18
Yaletown/Roundhouse	1	0	6
Olympic Village/2nd Ave	1	16	22
Broadway/City Hall	4	20	44
King Edward	2	10	22
Oakridge/41st Ave	2	10	22
Lanagar/49th	2	20	32
Marine Drive	2	20	32
Total number of Bike Racks	21		

Streetscape Policy Approval

In May of 2007, Durante Kreuk Ltd. ("DKL") was retained to develop conceptual public realm plans for four segments of the Cambie corridor:

Cambie Village (King Edward to 12th)
 North Corridor (2nd Avenue, Broadway to 12th Avenue)
 Oakridge (39th to 45th Avenue); and
 Cambie South (63rd Avenue to Kent).

This consultancy produced public realm concept plans in advance of Area Planning and Engineering initiatives such as Neighborhood Centres and Station Area Planning to allow

coordination of streetscape improvements with the Cambie Street restoration schedule. Each public realm plan was shown to the public for comment and input in 2007.

As Canada Line construction proceeded through each of the four areas, the scope of street restoration and opportunities to coordinate streetscape improvements was better defined. In the Oakridge, North Corridor and Cambie South segments, the damage caused by the Canada Line project was less than anticipated and as such, were not considered for detailed design by the consultant. The Cambie Village segment, particularly between King Edward and West 16th Avenues, required extensive repair that required that the remaining roadway, curb & gutter, and sidewalk be replaced. As such, the Cambie Village segment was identified for detailed design and implementation.

To date, the majority of the public realm improvements have been implemented in this area. However, Council approval of the public realm plan for the area is required to necessitate private property redevelopment to conform to these streetscape standards. This will also allow the public realm improvements for remainder of the Cambie Village, between West 16th and West 12th Avenues, to be built as part of future redevelopments over time. This implementation formula is common to other neighborhoods with special public realm treatments such as Downtown South and Georgia Street Streetscape design guidelines. The streetscape details for Cambie Village, King Edward to 12th, as shown in Appendix B, are recommended to Council for approval.

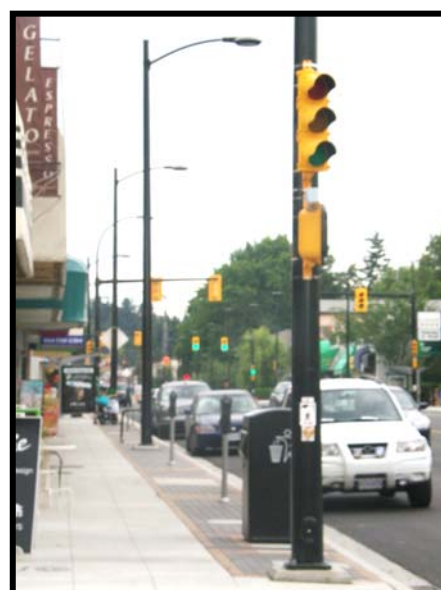
Cambie Village Streetscape Photos (for reference) - September 2008



Cambie - Residential



Cambie Commercial



Cambie Commercial, 17th to 19th

FINANCIAL IMPLICATIONS

The Canada Line project has a responsibility to generally 'repair and make good' all damage caused by the construction of the transit system. Due to the complexity of the project and sheer number of project partners, a significant amount of discussion has taken place to assess the damage caused by the project. For staff, these discussions focussed on how to best leverage this project responsibility. This was done by comparing preconstruction conditions with improved designs to use the project's restoration funds to offset the cost of the

proposed improvements, wherever possible. The City is only responsible for the incremental increase in cost associated with proposed improvements. The tables below summarize the funding allocations required by station area/program (Table 11) and by funding source (Table 12). For additional detailed cost estimates and funding arrangements, please refer to Appendix C.

Table 11 - Financial Implication Summary - By Station/Improvement

Station Improvements	Capital Cost for all Improvements	Operating Budget Increase
City Funding		
Marine Drive	\$141,950	\$1,738
Langara - 49th Avenue Station	\$3,250	\$542
Oakridge - 41st Avenue Station	\$219,650	\$867
King Edward Avenue Station	\$62,150	\$358
Broadway - City Hall Station	\$54,975	\$63
Olympic Village - 2nd Avenue Station	\$1,250,200	\$250
Yaletown - Roundhouse Station	\$364,500	-
Vancouver City Centre	Nil, as part of Granville Redesign	Nil
Waterfront	Nil, as part of Granville Redesign	Nil
Bicycle Racks (all stations)	\$5,775	
City Funding Subtotal:	\$2,102,450	\$3,817
External Funding:	\$290,350	
Project Total:	\$2,392,800	\$3,817

Table 12 - Financial Implication Summary - By funding source

Funding Source	Amount	Status
Cambie Restoration	\$2,047,850	Previously approved as part of the 2007 Engineering Basic Capital Budget
2008 New Pedestrian and Vehicle Signals Program	\$54,600	
City Funds - Subtotal	\$2,102,450	\$3,817
ICBC Contribution for Roadway Safety Enhancement	\$50,000	For Council information
Bicycle Infrastructure Capital Cost Sharing Program - TransLink Grant	135,750	Pending approval of application
Private Development	\$104,600	Contribution for 8 th Avenue & Cambie Traffic Signal
External Funds - Subtotal	\$290,350	
Project Total:	\$2,392,800	\$3,817

The total estimated cost of implementing all of the described improvements is \$2,392,800. It is recommended for Council approval that the City contribution to these improvements, equal to the total cost less external funding contributions, is \$2,102,450 from the following capital programs.

Funding Source	Amount	Status
Cambie Restoration	\$2,047,850	Previously approved as part of the 2007 Engineering Basic Capital Budget
2008 New Pedestrian and Vehicle Signals Program	\$54,600	

Commencing in 2010, it is also recommended that the annual Traffic Operations Operating Budget for Signage be increased by \$3,817 for maintenance of the new signs and pavement markings.

PUBLIC CONSULTATION

Public consultation for station area (precinct) improvements took place through two progressive open houses (per station) where a total of 230 feedback forms were received. This consultation resulted in the development of draft precinct plans of conceptual improvements. Draft precinct plans are shown in Appendix A.

Following this process, detailed review of each draft precinct plan was conducted and resulted in the proposed improvements described above. Where there were specific improvements proposed that had a unique impact to an area, local open houses and stakeholder meetings were conducted by staff to address these neighbourhood specific needs. A comprehensive list of these meetings is shown below.

Consultation	Date
Station Area Improvements (Precinct Improvements)	
Downtown Stations Area Improvement Consultation (Yaletown-Roundhouse, Vancouver City Centre, Waterfront)	Open Houses on March 7 2006, May 1 2006
North Cambie Stations (Broadway/City Hall, Olympic Village-2 nd Avenue)	Open Houses on Feb 21 2006, April 4 2006
South Cambie Stations (Langara- 49 th Avenue, Oakridge - 41 st Avenue, King Edward Ave)	Open Houses on Feb 7 2006 and April 18 2006
Marine Drive Station	Open House April 19 2006, June 13 2006
Public Realm/Streetscape Consultations	
North Cambie (2 nd Avenue, Broadway to 12 th Avenue)	Open House November 2007
Cambie Village (12 th Avenue to King Edward Avenue)	Open Houses February 2007, April 2007
Oakridge (39 th Avenue to 45 th Avenue)	Open Houses June 2007, November 2007
South Cambie (63 rd to Kent Avenue)	Open House June 2007
Stakeholder Meetings	
Cambie Village Business Association (CVBA)	Attended six CVBA board meetings/special workshops to provide updates on construction activity and streetscape improvements
2 nd Avenue/6 th Avenue Property owners and tenants	Mini Lunch hour open house, January 2008 Meeting with Property Manager of Coastal Health Building
Yaletown Business Improvement Association (YBIA)	Attended two YBIA board meetings, 2007 and 2008 to describe proposed improvements at Yaletown Station

Advisory Committees to Council	
Bicycle Advisory Committee to City Council	October 15, 2008
Bicycle Network Subcommittee	Series of three iterative meetings to discuss bicycle improvements and connections to stations

IMPLEMENTATION PLAN

The improvements, if approved by Council, will be coordinated with the restoration works at the Canada Line Stations, to be complete by the summer of 2009.

CONCLUSION

The proposed improvements in station precincts and adoption of public realm guidelines for the Cambie Village area are recommended for Council approval.

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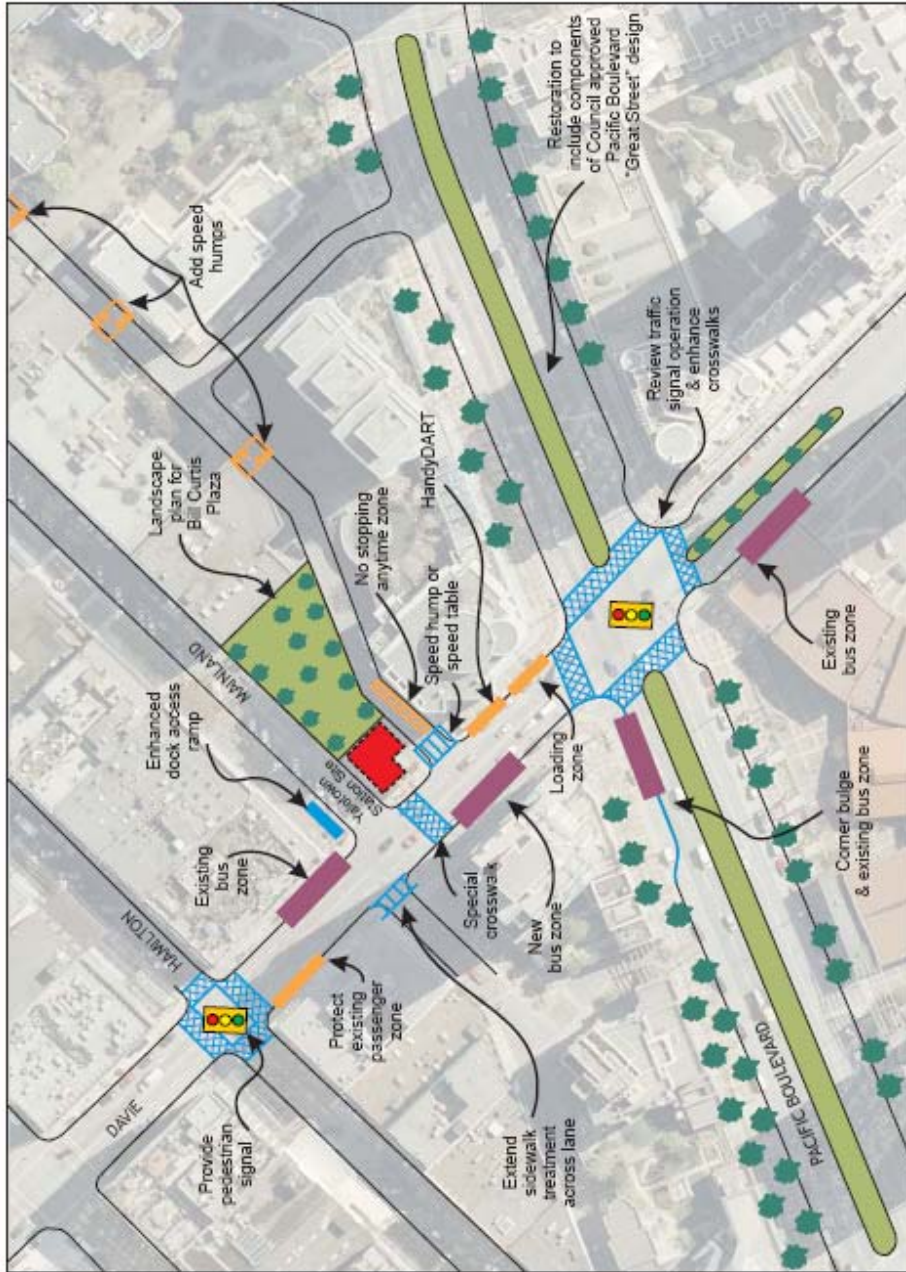
Yaletown Station Draft Precinct Plan



CITY OF VANCOUVER

This draft precinct plan incorporates relevant public feedback from Open House #1 where possible. Let us know what you think. Write your ideas and/or concerns on a Post-it note and place them here.

- █ Pedestrian/Cyclist
- █ Transit
- █ Traffic, Parking and Loading
- █ Public Realm Improvements



RAPID TRANSIT OFFICE

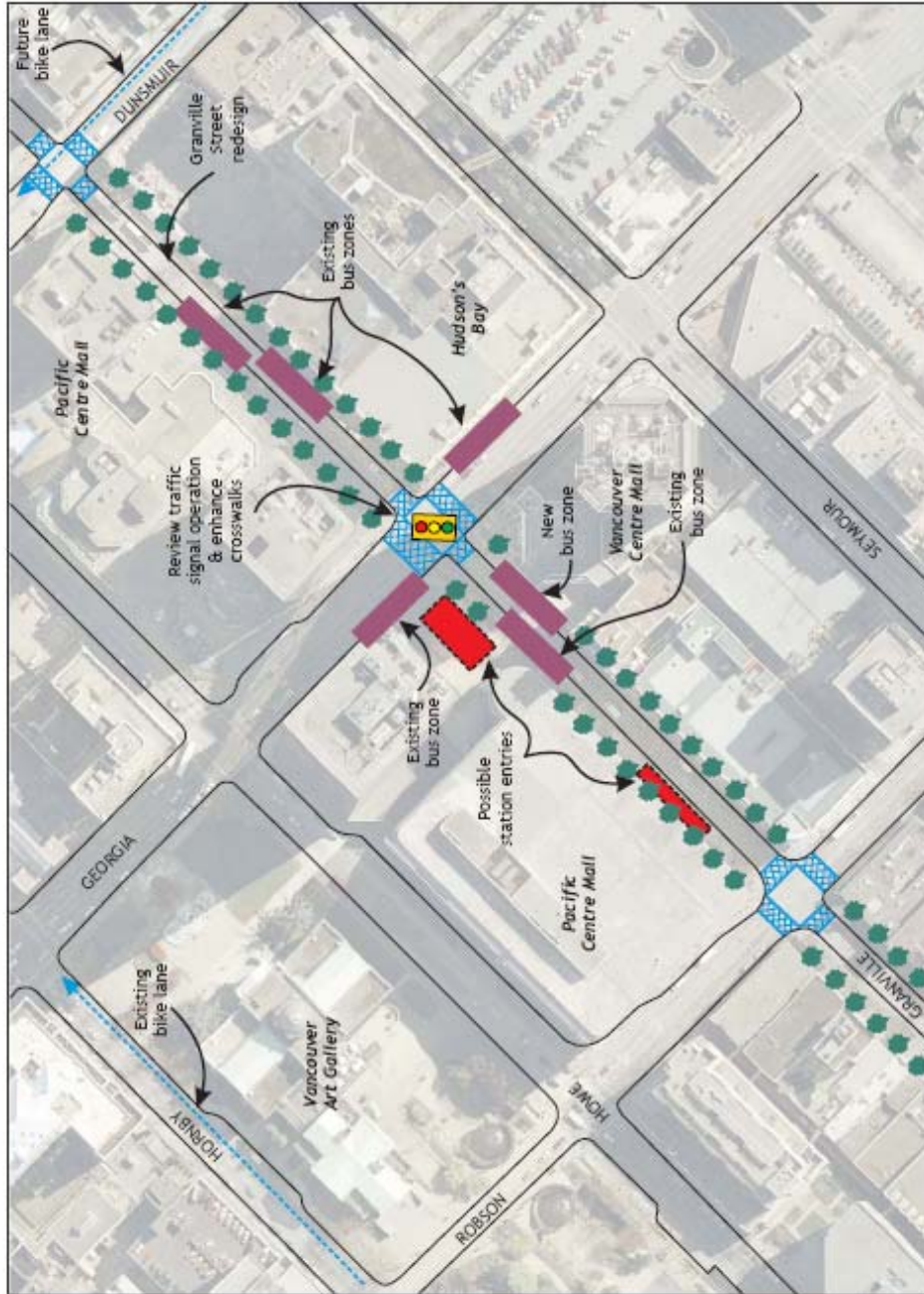


CITY OF VANCOUVER

Robson Station: Draft Precinct Plan

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- Pedestrian/Cyclist
- Transit
- Traffic, Parking and Loading
- Public Realm Improvements
- Possible Station Entries



RAPID TRANSIT OFFICE

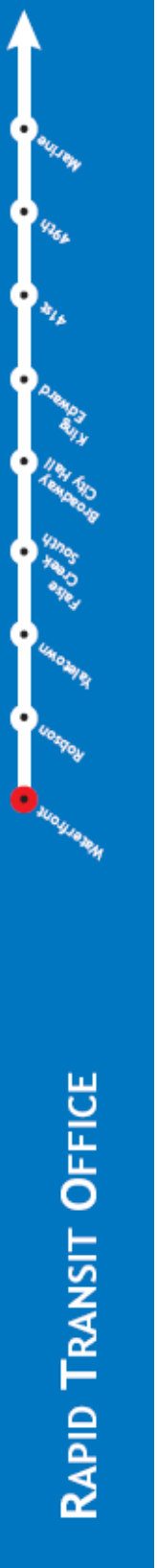
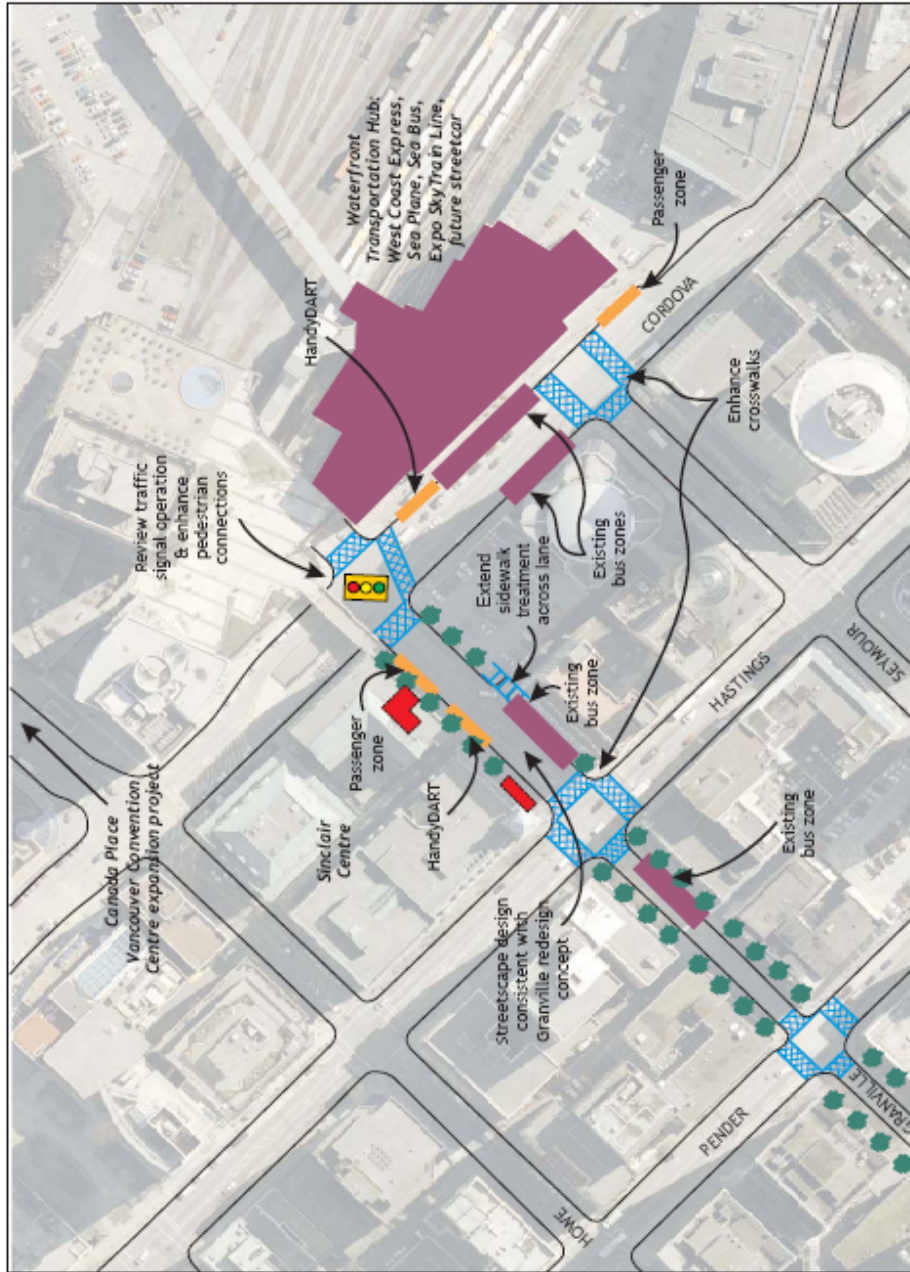
Waterfront Station: Draft Precinct Plan



CITY OF VANCOUVER

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- Pedestrian/Cyclist
- Transit
- Traffic, Parking and Loading
- Public Realm Improvements
- Possible Station Entries



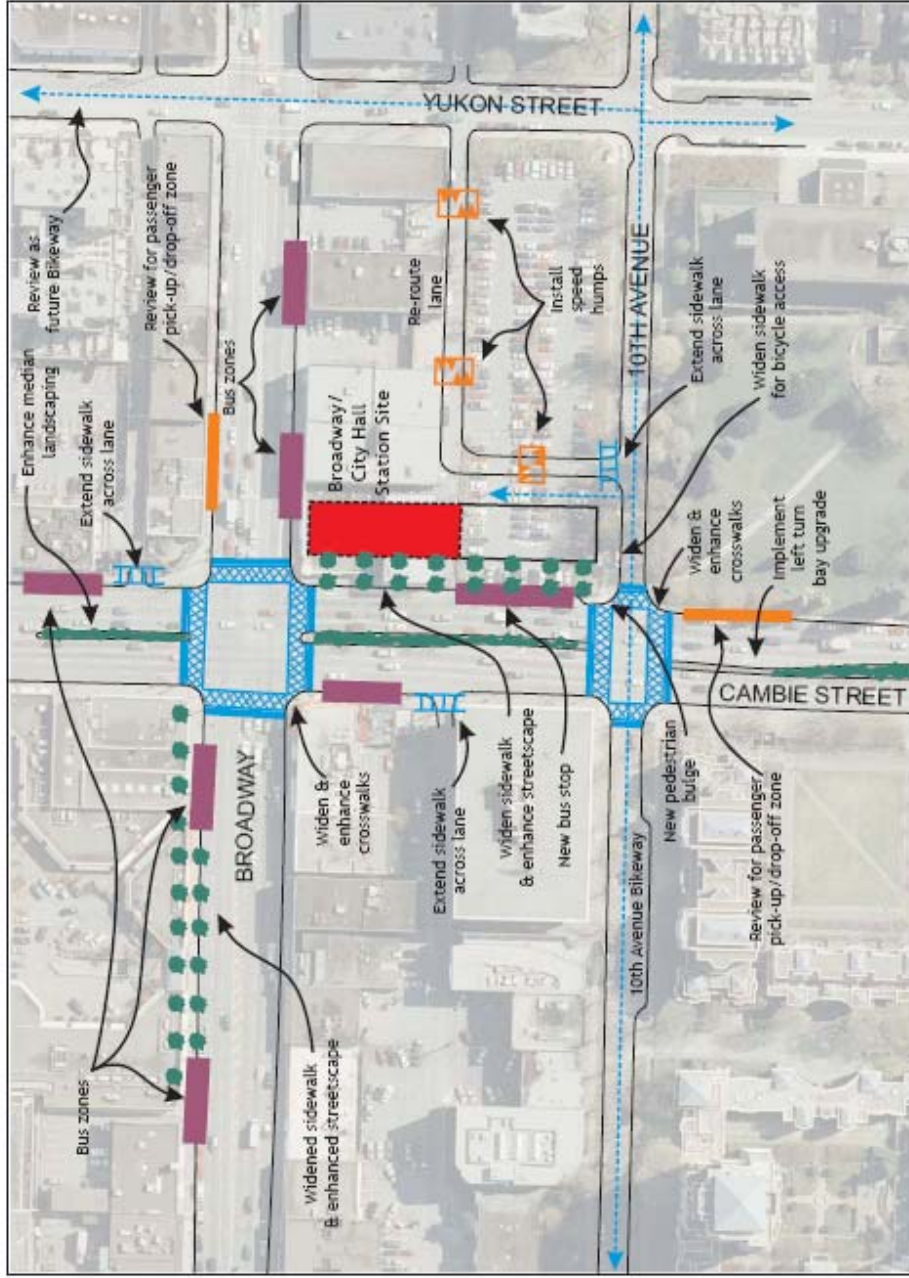


CITY OF VANCOUVER

Broadway/City Hall Station Draft Precinct Plan

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- Pedestrian/Cyclist
- Transit
- Traffic, Parking and Loading
- Public Realm Improvements



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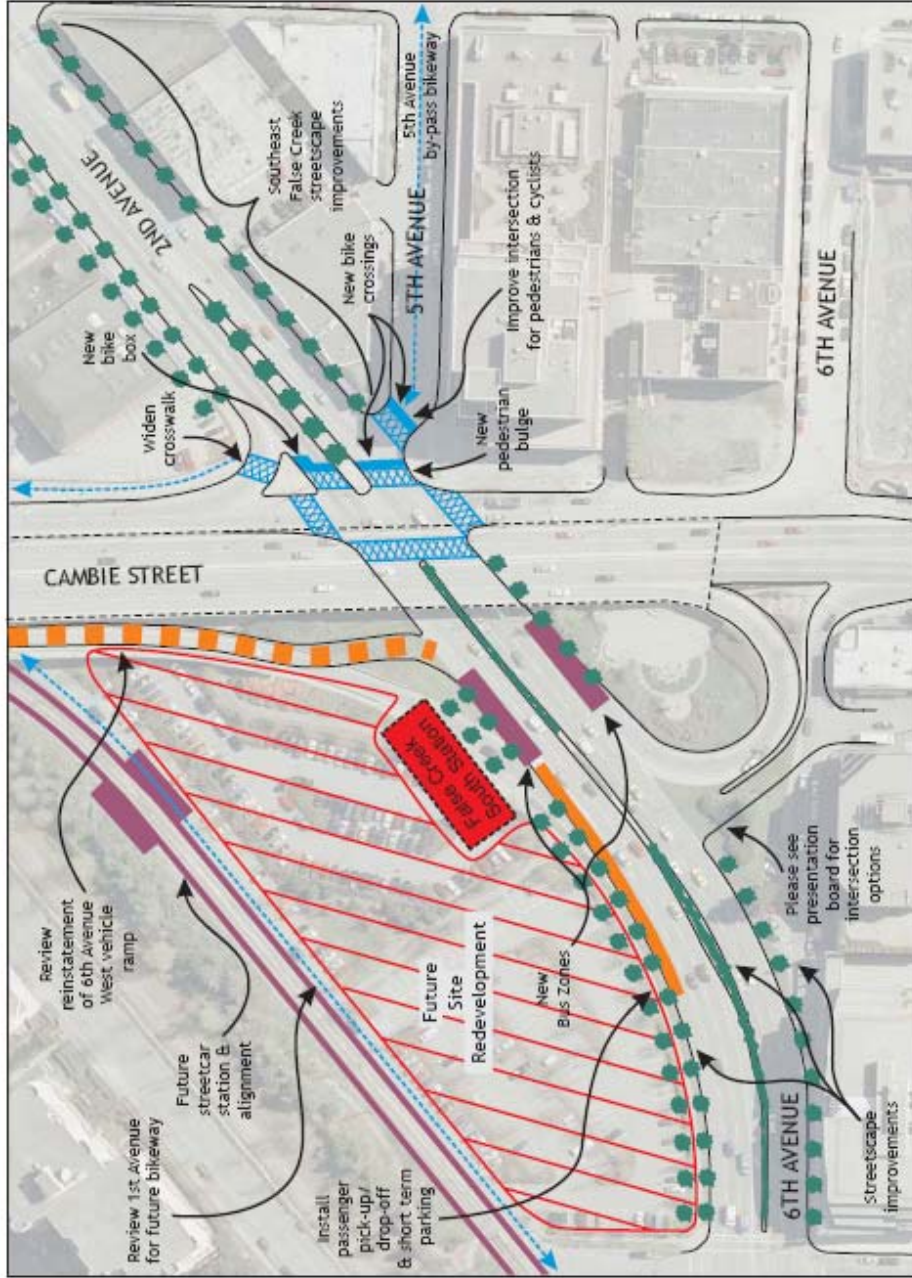


CITY OF VANCOUVER

False Creek South Station Draft Precinct Plan

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- █ Pedestrian/Cyclist
- █ Transit
- █ Traffic, Parking and Loading
- █ Public Realm Improvements



RAPID TRANSIT OFFICE

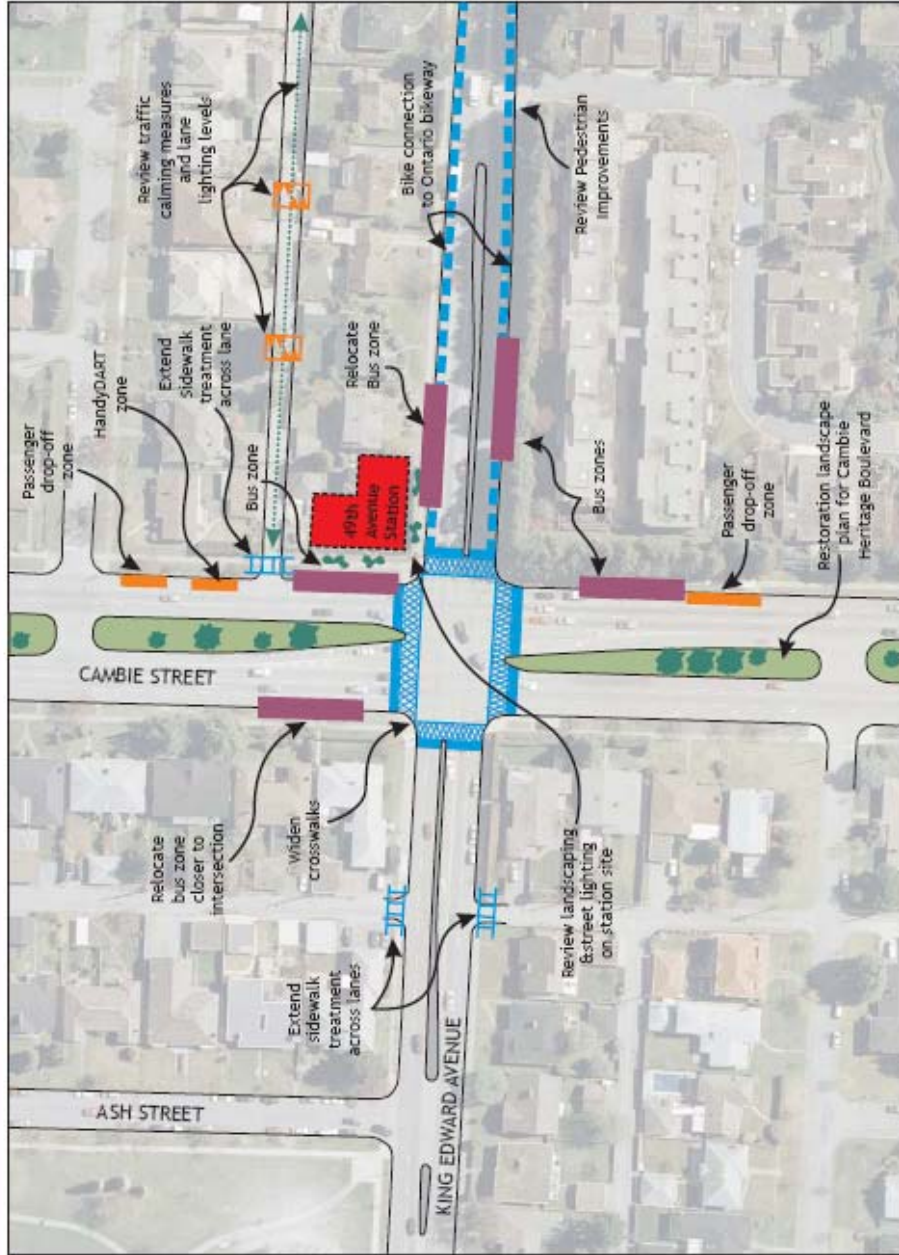


CITY OF VANCOUVER

49th Avenue Station Draft Precinct Plan

This draft precinct plan incorporates relevant public feedback from Open House #1, where possible. Let us know what you think. Write your ideas and/or concerns on a post-it note and place them here.

- █ Pedestrian/Cyclist
- █ Transit
- █ Traffic, Parking and Loading
- █ Public Realm Improvements



RAPID TRANSIT OFFICE



CITY OF VANCOUVER

41st Avenue Station: Draft Precinct Plan

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- Pedestrian/Cyclist
- Transit
- Traffic, Parking and Loading
- Public Realm Improvements



RAPID TRANSIT OFFICE

King Edward Station Draft Precinct Plan



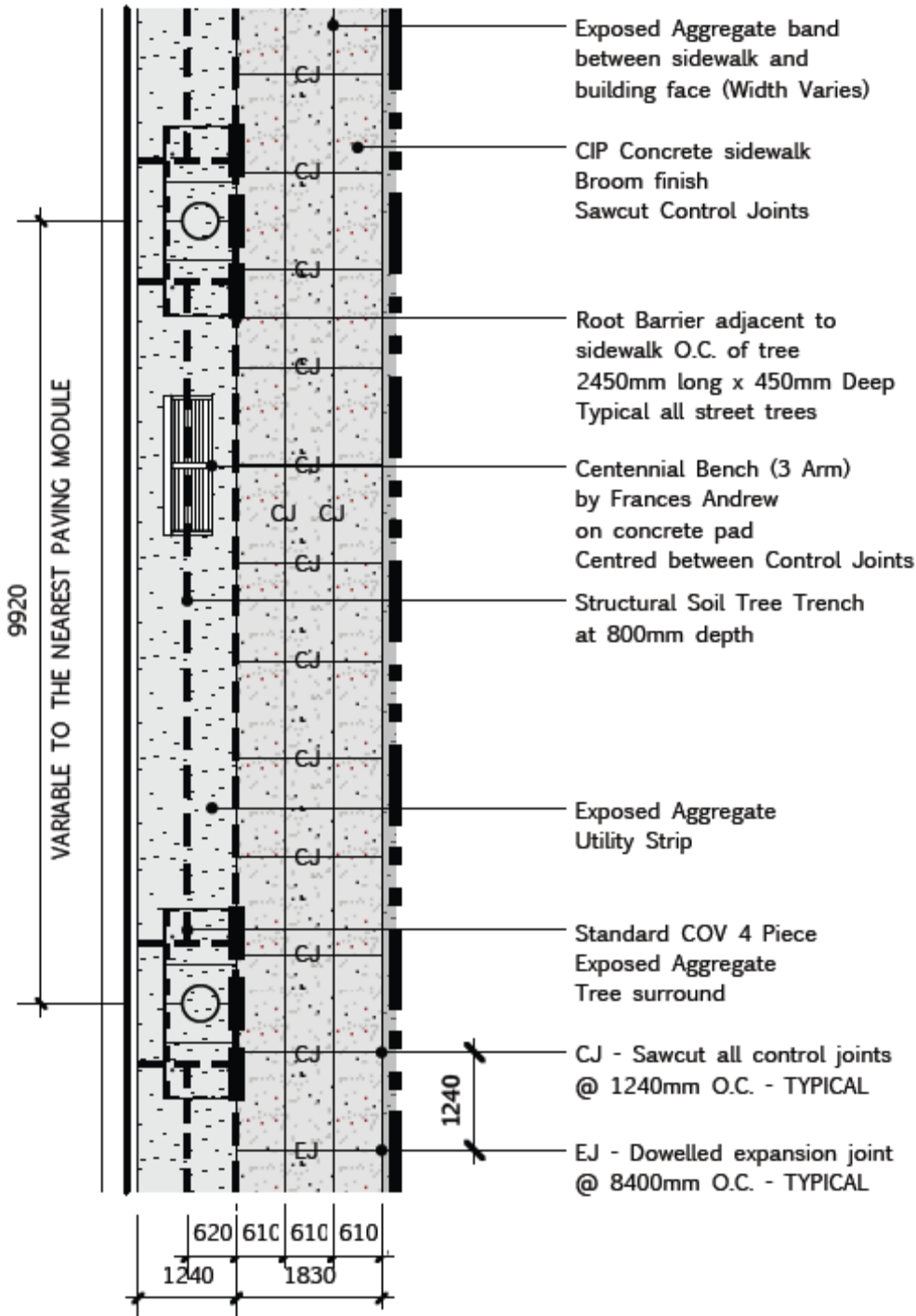
This draft precinct plan incorporates relevant public feedback from Open House #1, where possible. Let us know what you think. Write your ideas and/or concerns on a Post-it note and place them here.

- █ Pedestrian/Cyclist
- █ Transit
- █ Traffic, Parking and Loading
- █ Public Realm Improvements

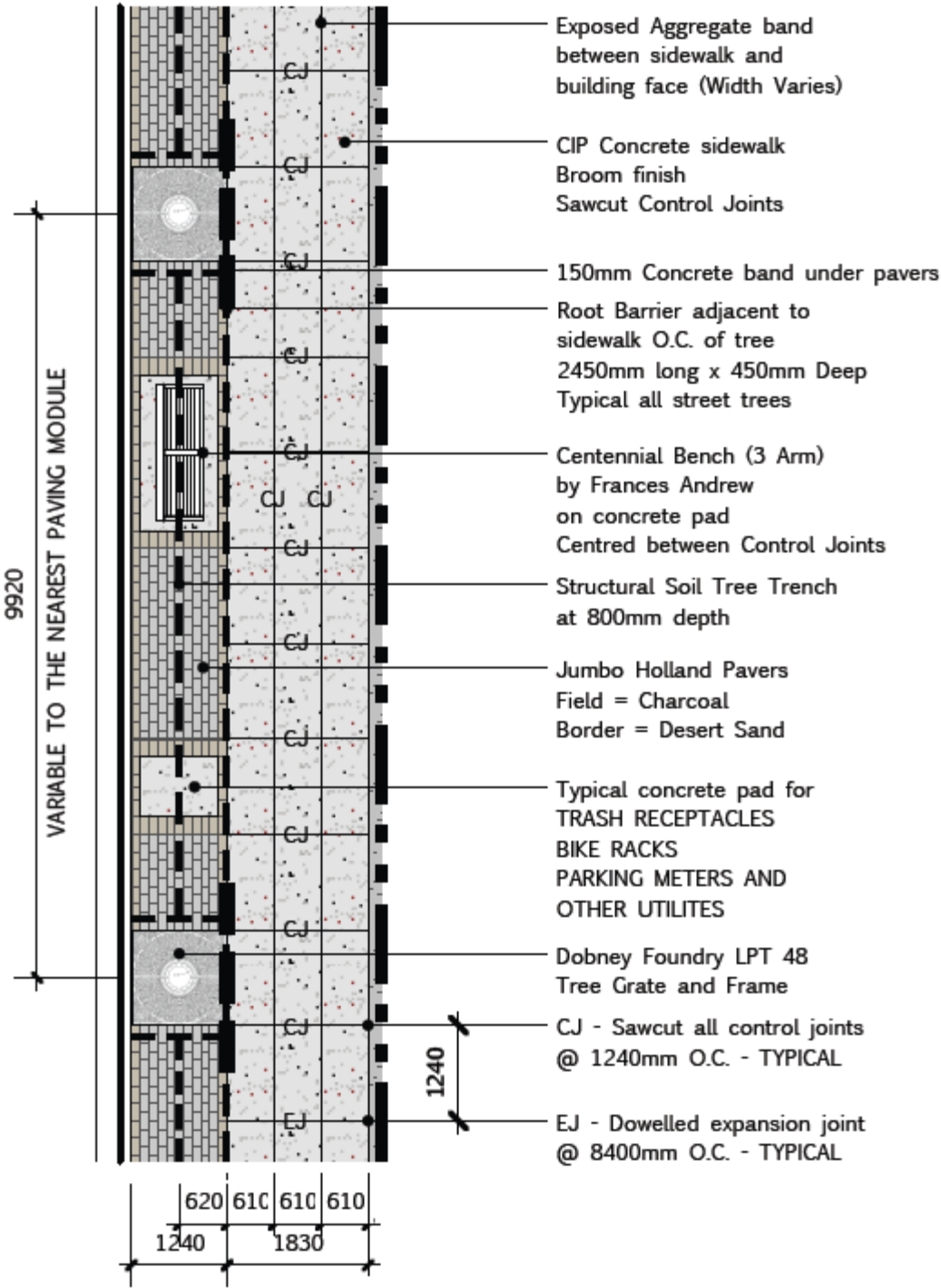


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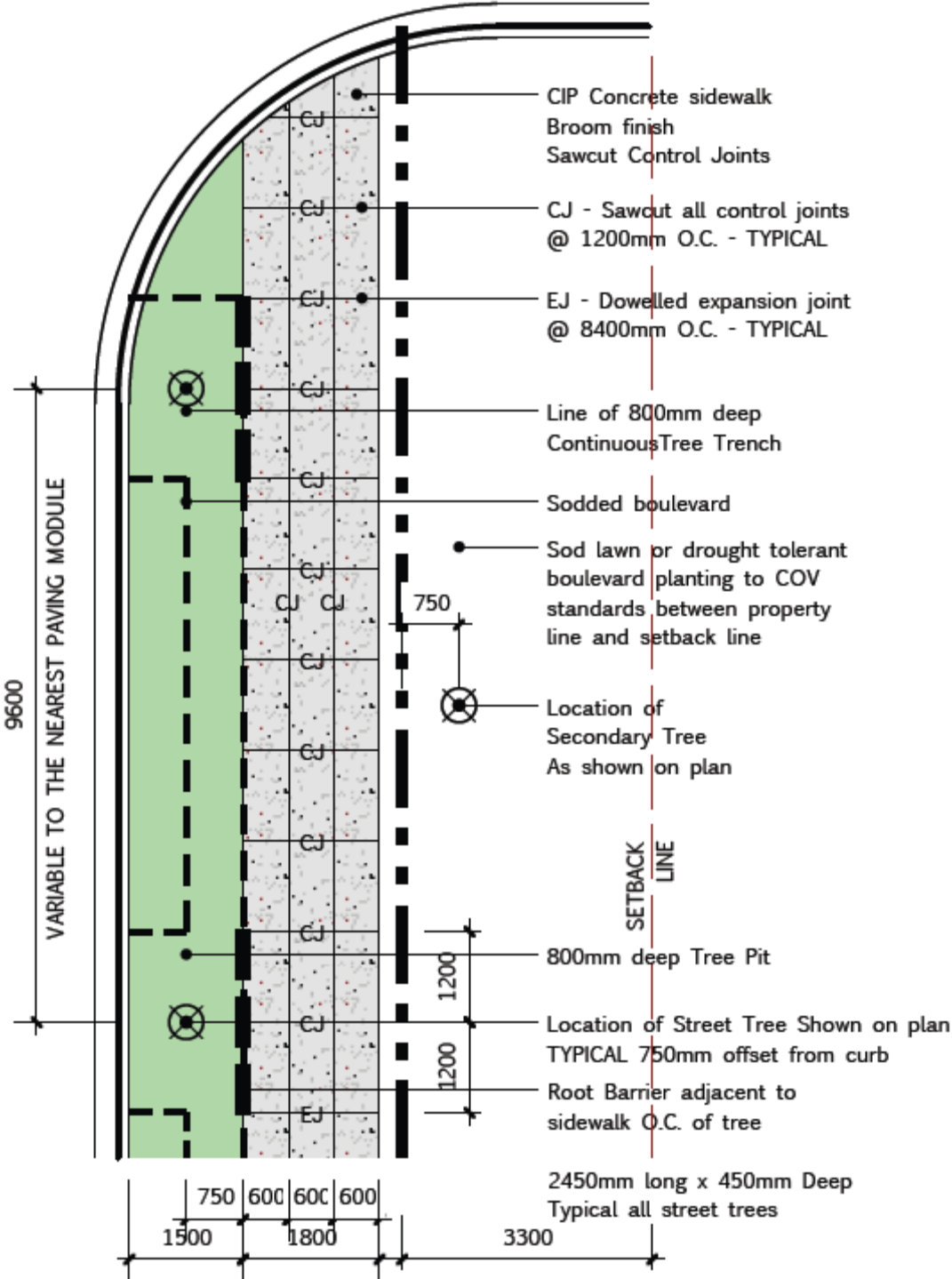
Cambie Public Realm Guidelines - Cambie Village Commercial



Cambie Public Realm Guidelines - Cambie Village Commercial, 17th to 19th



Cambie Public Realm Guidelines - Cambie Village Residential



Cambie Station Area Improvements

Marine Drive

Improvement	Capital Cost	Source	Operating Budget Increases	Pedestrians	Bikes	Roadway Safety
Cambie Realignment, Marine Drive to 63rd	-	Canada Line	-	X		X
Off Street Bike Path, Marine to 63rd	\$ 40,700.00	Cambie Restoration	\$ 233		X	
Raised Crosswalk and Bicycle Crossing	\$ 25,600.00	Cambie Restoration	\$ 44	X	X	
Narrower Painted Crosswalks	-	Cambie Restoration	-	X		
Bicycle Lane Access to Station at Bus Loop	\$ 13,300.00	Cambie Restoration	-		X	
	\$ 13,300.00	BICCS				
New Mid-block Pedestrian Crossing	\$ 8,100.00	Cambie Restoration	\$ 44	X		
New Median Adjacent to Portal	-	Canada Line	-	X		X
Bikeway Extensions to Off Street Bike Path	\$ 54,250.00	Cambie Restoration	\$ 1,417		X	
	\$ 54,250.00	BICCS				
	\$ 141,950.00		\$ 1,738			

Langara - 49th Avenue Station

Improvement	Capital Cost	Source	Operating Budget Increases	Pedestrians	Bikes	Roadway Safety
Traffic Signal at 49th & Alberta		2006 Traffic Signal Program		X	X	X
Bicycle Boxes at 49th & Cambie	\$ 3,250.00	Cambie Restoration	\$ 542		X	
	\$ 3,250.00	BICCS				
	\$ 3,250.00		\$ 542			

Oakridge - 41st Avenue Station

Improvement	Capital Cost	Source	Operating Budget Increases	Pedestrians	Bikes	Roadway Safety
Pedestrian bulge at SW Corner of 41st & Cambie	\$ 29,100.00	Cambie Restoration	-	X	X	X
Road Narrowing, West Side of Cambie, 41st to 42nd	\$ 158,500.00	Cambie Restoration	-	X	X	X
Pedestrian Refuge in Median/Crosswalks	-	Cambie Restoration	-	X		
Bicycle Crossing at 42nd Avenue	\$ 4,450.00	Cambie Restoration	-		X	
	\$ 4,450.00	BICCS				
Bikeway Extensions to Station	\$ 27,600.00	Cambie Restoration	\$ 867		X	
	\$ 27,600.00	BICCS				
	\$ 219,650.00		\$ 867			

King Edward Avenue Station

Improvement	Capital Cost	Source	Operating Budget Increases	Pedestrians	Bikes	Roadway Safety
Elimination of Right Turn Slip Lane	\$ 38,000.00	Cambie Restoration	-	X	X	X
Sidewalk Widening Cambie, west side 24th to KE	\$ 22,000.00	Cambie Restoration	-	X		X
Bicycle Boxes and Bicycle Crossing	\$ 2,150.00	Cambie Restoration	\$ 358		X	
	\$ 2,150.00	BICCS				
King Edward Arterial Improvements, Yukon to Cambie	Will seek Council approval in 2009	Will seek Council approval in 2009			X	
	\$ 62,150.00		\$ 358			

Broadway - City Hall Station

Improvement	Capital Cost	Source	Operating Budget Increases	Pedestrians	Bikes	Roadway Safety
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Bikeway Extension from Yukon	\$ 375.00	Cambie Restoration	\$ 63		X	
	\$ 375.00	BICCS				
Traffic Signal at 8th & Cambie	\$ 104,600.00	Crossroads Development	-	X	X	X
	\$ 50,000.00	ICBC				
	\$ 54,600.00	2008 New Pedestrian and Vehicle Signals Program				
	\$ 54,975.00		\$ 63			

Olympic Village - 2nd Avenue Station

Improvement	Capital Cost	Source	Operating Budget Increases	Pedestrians	Bikes	Roadway Safety
Off Street Bike Path	\$ 24,100.00	Cambie Restoration	\$ 250		X	
	\$ 24,100.00	BICCS				
Traffic Signal at Offramp & 2nd Avenue	\$ 200,000.00	Cambie Restoration	-	X	X	X
2nd Avenue Reconfiguration and Landscaping	\$ 1,026,100.00	Cambie Restoration	-	X	X	X
2nd Avenue, Cambie to Columbia	Will seek Council approval in 2009	Will seek Council approval in 2009	-	X	X	X
	\$ 1,250,200.00		\$ 250			

Yaletown - Roundhouse Station

Improvement	Capital Cost	Source	Operating Budget Increases	Pedestrians	Bikes	Roadway Safety
New Intersection and Traffic Signal at Mainland & Davie Intersection	\$ 364,000.00	Cambie Restoration	-	X	X	X

Pacific Boulevard Great Street Grand Median Bicycle Lanes on Davie, Marinaside Crescent to Pacific Boulevard	Will seek Council approval in 2009	Will seek Council approval in 2009	-	X	X	X
	\$ 500.00	Cambie Restoration				
	\$ 500.00	BICCS				
	\$ 364,500.00		\$ -			

Bicycle Racks for Canada Line Stations

Improvement	Capital Cost	Source	Operating Budget Increases	Pedestrians	Bikes	Roadway Safety
Bicycle Racks for Canada Line Stations	\$ 5,775.00	Cambie Restoration	-		X	
	\$ 5,775.00	BICCS				
	\$ 5,775.00		\$ -			