



# MILLENNIUM LINE BROADWAY EXTENSION

## Phase 1 Engagement Summary Report

December 2016 - February 2017

Prepared by: MODUS Planning, Design & Engagement Inc. for Stantec  
Consulting Ltd.



# TABLE OF CONTENTS

- 1 EXECUTIVE SUMMARY ..... 3**
  - 1.1 Engagement Opportunities ..... 3
  - 1.2 Key Findings..... 4
  - 1.3 Next Steps..... 5
- 2 INTRODUCTION..... 6**
  - 2.1 Background..... 6
  - 2.2 Engagement Process ..... 7
- 3 ENGAGEMENT OPPORTUNITIES ..... 8**
  - 3.1 Stakeholder Meetings ..... 8
  - 3.2 Public Open Houses ..... 8
  - 3.3 Online Survey ..... 9
  - 3.4 Region-wide Poll..... 10
- 4 ENGAGEMENT FINDINGS..... 11**
  - 4.1 Project Route and Stations ..... 13
  - 4.2 Project Timeline, Cost, and Funding Sources ..... 16
  - 4.3 Station Design Considerations..... 17
  - 4.4 Construction Method and Impacts..... 19
  - 4.5 A Sustainable, Multi-Modal Regional Transit System..... 21
  - 4.6 More Homes and Jobs on the Broadway Corridor ..... 22
  - 4.7 Corridor Area Integrated Land Use Planning..... 22
  - 4.8 Improved Transit Experience..... 23
  - 4.9 Vehicle Congestion ..... 24
  - 4.10 Other ..... 24
- 5 OUTREACH EXTENT AND METHODS..... 24**
- 6 NEXT STEPS..... 25**

# 1 EXECUTIVE SUMMARY

TransLink and its partner, the City of Vancouver, are conducting a three-phase stakeholder and public engagement process to inform the design development for the Millennium Line Broadway Extension. When full funding is secured, the project will extend the Millennium Line westward from its current terminus at VCC- Clark to Arbutus Street via a six-kilometre underground route with six stations at major intersections.

This report summarizes activities and findings from engagement that took place between December 2016 and February 2017. A parallel First Nations engagement process is also taking place in 2017.

## 1.1 ENGAGEMENT OPPORTUNITIES

Engagement took place during winter 2016/17 and included three stakeholder meetings, three public open houses, an online survey, and a region-wide poll. The goal was to inform stakeholders along the route and the greater public about the Millennium Line Broadway Extension alignment, proposed station locations, technology choice, and the work that the project team has done to date. These sessions also presented an opportunity to listen to input and respond to questions about the project.

Event	Date	Participation
<b>Transportation 2040 Working Group</b>	Monday, December 12, 2016 3:00 to 4:00 pm	24 participants
<b>Stakeholder Workshop</b> Creekside Community Centre	Thursday, January 19, 2017 2:00 to 4:00 pm	30 participants
<b>Stakeholder Workshop</b> Creekside Community Centre	Thursday, January 19, 2017 6:00 to 8:00 pm	17 participants
<b>Public Open House</b> Douglas Park Community Centre	Saturday, January 28, 2017 1:00 to 5:00 pm	200 participants
<b>Public Open House</b> Croatian Cultural Centre	Tuesday, January 31, 2017 4:00 to 8:00 pm	71 participants
<b>Public Open House</b> Ukrainian Orthodox Cathedral	Wednesday, February 1, 2017 4:00 to 8:00 pm	131 participants
<b>Region-Wide Telephone Poll</b> Mustel Group	January 2017	<ul style="list-style-type: none"> <li>• 800 respondents in Metro Vancouver</li> <li>• 145 respondents within 800 metres of proposed stations</li> </ul>
<b>Online Survey</b> FluidSurveys	January 23 - February 13, 2017	3,772 completed responses with 82% completion rate. 4,199 responses with data.

Table 1: Engagement Snapshot

## 1.2 KEY FINDINGS

### Public Opinion Polling

Public opinion research conducted in early 2017 established an independent baseline of awareness and support related to the Millennium Line Broadway Extension.

- The polling revealed that 57% of residents across the region and 84% along the corridor say they are aware of the project.
- After hearing about the benefits of the project, over 60% of residents across Metro Vancouver and three-quarters of residents along the Broadway corridor support the proposed Millennium Line Broadway Extension.

Respondents said they support the project because of the need to expand transit, reduce congestion, and provide fast, frequent, and reliable service along the corridor. They also say that maintaining access to businesses in the area during construction is important for their support. Millennials (people aged 19 to 35) are especially in favour, with about 75% of them expressing strong support for the project.

### Stakeholder and Public Events

During the engagement in winter 2016/17, 47 stakeholders attended two stakeholder presentations in mid-January 2017 and over 400 members of the public attended three open houses in late January/early February 2017.

Feedback from these events indicates that event participants and survey respondents strongly support the project, with a desire to see the project completed with long-term capacity and manageable construction-related disruptions. Feedback shows that participants see the Millennium Line Broadway Extension Project as an opportunity to improve the transit experience along the Broadway Corridor with a multi-modal transit system that can accommodate growth in Metro Vancouver. They also responded that the Broadway Extension is an opportunity to improve wayfinding, accessibility, and safety in transit vehicles and stations, which could also become sites of community connection and place-making.

When asked to share concerns about the Broadway Extension project, participants raised issues and questions regarding the choice of transit technology, and related to this, the construction method required to implement it.

- Conversations about construction centered around the question: “What can we learn from the Canada Line construction?”, as participants and stakeholders discussed how to best identify and mitigate potential impacts to local businesses and residents along the Broadway Corridor.
- Participants recognized that the Millennium Line Broadway Extension is an opportunity to increase jobs and housing. However, they identified concerns that the project could indirectly increase property values for business owners and corridor residents.
- Some concerns were raised about the project timeline, with a desire to see construction of rapid transit all the way to the University of British Columbia (UBC), rather than at a later stage.
- The two phases of construction left room for many questions about the plans for the Arbutus Exchange. Questions were raised that could benefit from further engagement, specifically around

the design of the exchange and the plans to integrate it into the community and existing transit infrastructure.

### Online Engagement

Between January 23 and February 13, 2017, TransLink hosted an online survey on the project website. More than 3,700 respondents completed the survey, representing an 82% completion rate. This report includes all feedback received from 4,199 responses, which includes data from respondents who did not click the “submit” button to complete their survey but otherwise left feedback.

- The online survey found that 55% of respondents were very aware of the Broadway Extension project, with 44% of the 4,199 responses aware that the project would be delivered in two phases.
- 80% of respondents were very supportive of the Broadway Extension from VCC-Clark Station to Arbutus Street.
- The top three considerations raised by participants included providing fast, frequent, and reliable transit service (80% support); reducing congestion along one of North America’s busiest bus routes (77% support); and contributing to sustainable transportation in Metro Vancouver (75% support).
- The top comments related to the Broadway Extension’s alignment with 631 participants (42%) commented that the Millennium Line should be extended to UBC as quickly as possible.
- Another 24% of comments were in support of the project, citing reducing vehicle traffic, being cost-effective, linking communities, decreasing commutes, and improving the transit experience.
- Concerns comprised another 24% of comments, focused on the duration of construction, passenger congestion in stations, residential impacts, business impacts, and funding sources.

## 1.3 NEXT STEPS

The next round of stakeholder and public engagement will be later in 2017. The Millennium Line Broadway Extension project team will seek input on station design, long-term capacity and extension, and network integration principles, plus feedback on construction impacts and the environmental review.

The third and final round of stakeholder and public engagement to shape the detailed design of the Millennium Line Broadway Extension is scheduled to occur in late 2017. At that time, the team will share information about the feedback gathered. They will also ask for input on mitigation measures for businesses and residences for construction and operations impacts, and feedback on design elements.

## 2 INTRODUCTION

This report summarizes the public and stakeholder engagement conducted by TransLink and the City of Vancouver between December 2016 and February 2017 to inform design development for the Millennium Line Broadway Extension.

The goal of engagement in winter 2016/17 was to inform stakeholders along the Broadway Corridor and the greater public about the Millennium Line Broadway Extension alignment, proposed station locations, technology choice, and the work that the project team has done to-date. Engagement activities also presented an opportunity to listen to general thoughts and questions about the project.

### 2.1 BACKGROUND

#### Mayors' Council on Regional Transportation

The TransLink Mayors' Council on Regional Transportation is comprised of the 21 mayors in Metro Vancouver, as well as an elected representative of Electoral Area 'A' and the Chief of Tsawwassen First Nation. The Mayors' Council approves TransLink's long-term regional transportation strategies and 10-year transportation investment plans, and performs regulatory oversight functions.

In February 2014, the Minister of Transportation and Infrastructure asked the Mayors' Council to confirm its transportation vision and to clarify the costs, priorities, and phasing for investments and actions.

In June 2014, the Mayors' Council responded with a Vision outlining transit and transportation investments to keep Metro Vancouver moving. This Vision has a 30-year planning horizon, and calls for rapid transit along the Broadway corridor, connecting to UBC.

#### 10-Year Vision

The Vision sets out specific investment, management, and partnership actions for ten years, referred to as the 10-Year Vision for Metro Vancouver Transportation. One of the investment actions is to extend the Millennium Line westward from its current terminus at VCC-Clark Station to UBC within the initial 10-year period of the Vision.

- Phase 1 will extend the Millennium Line from the existing VCC-Clark Station to Arbutus Street, underground along the Broadway Corridor.
- Phase 2 of the project will extend rapid transit to UBC.

Consistent with the Mayors' Council 10-Year Vision, TransLink and the City have prioritized implementing rapid transit along the Central Broadway Corridor to address the densest population and employment areas on the corridor first.

#### Phase One Plan

In November 2016, the TransLink Board of Directors and the Mayors' Council approved TransLink's 2017-2026 Investment Plan: Phase One of the 10-Year Vision (Phase One Plan). The Phase One Plan includes

funding for pre-construction activities for the Millennium Line Broadway Extension. Full capital funding for the Broadway Extension will be confirmed through a future update to TransLink’s Investment Plan.

## 2.2 ENGAGEMENT PROCESS

The Millennium Line Broadway Extension is one of the most significant infrastructure investments for the region’s future and is the City’s number one transportation priority. TransLink is leading a three-phase engagement process in partnership with the City of Vancouver and the Province of British Columbia to inform the design development of the Broadway Extension.

During this period, multiple technical, intergovernmental, and engagement activities are underway, including: design development; further geotechnical investigation; environmental review; business case refinement; technical specifications development; procurement document preparation; engagement with stakeholders, the public, and First Nations; and other efforts.

This report summarizes public and stakeholder activities and feedback conducted in winter 2016/17 as indicated in the process diagram below.



Figure 2: Engagement Process Timeline

This report is organized as follows:

- Summary of Engagement Opportunities
- Summary of Engagement Findings
- Outreach Extent and Methods

Verbatim written feedback gathered from events and online engagement are included in the Appendix, organized by input opportunity.

## 3 ENGAGEMENT OPPORTUNITIES

TransLink, with its partner the City of Vancouver, hosted three stakeholder meetings, three open houses, an online survey, and a region-wide poll between December 2016 and February 2017.

This section summarizes the purpose, format, and level of participation for each engagement opportunity. The following section, “Engagement Findings,” summarizes the feedback received across all input opportunities. Verbatim written comments are included in the Appendix.

### 3.1 STAKEHOLDER MEETINGS

The first stakeholder meeting was with the City of Vancouver’s Transportation 2040 Working group, held on December 12, 2016. The purpose of this meeting was to provide the group with an update on the Millennium Line Extension project, including the selected route and technology, how they were chosen, and next steps. This was also an opportunity to gather questions from members of the Working Group. The summary of this session is included in the Appendix.

On January 19, 2017, the project team hosted two stakeholder meetings to listen to questions, concerns, and ideas about opportunities for the Broadway Extension. Approximately 50 people attended these stakeholder information events, representing stakeholders from a cross-section of community associations, the business and development sector, education, healthcare, safety and security, accessibility, and transportation and transportation advocacy groups. To provide opportunities for involvement during the day and during the evening, invitees were given the option to attend either a 2 p.m. to 4 p.m. session or a later session from 6 p.m. to 8 p.m. Both meetings took place at Creekside Community Centre.

- With strong attendance from people connected to the business and development sector along the route, 30 participants of the afternoon session (2 p.m. to 4 p.m.) raised concerns about the impacts to the business community, including a theme of “What can we learn from the experience of the Canada Line?”
- The evening session (4 p.m.-8 p.m.) included 17 participants, representing local schools, police, and community members. The focus of conversations included safety and accessibility both during construction and once construction is complete. Participants in this session also raised concerns about construction methods and project funding, as well as the length of time of the project from construction start to the completion of rapid transit to UBC.

### 3.2 PUBLIC OPEN HOUSES

The project team hosted three open houses to inform the public about the Millennium Line Broadway Extension, to gather ideas, and to listen to questions:

- January 28, 1 p.m. – 5 p.m. at Douglas Park Community Center
- January 31, 4 p.m. – 8 p.m. at the Croatian Cultural Centre

- February 1, 4 p.m. – 8 p.m. at Holy Trinity Ukrainian Orthodox Cathedral

### 3.2.1 EVENTS PROMOTION

These events were promoted in both traditional and online media. Promotion for the public open houses included:

- Posters given to stakeholders to hang in their places of work along the Broadway Corridor (50+)
- Posters for local coffee shops and community centers (100+)
- Postcards distributed by street teams along the Corridor (4,000)
- Print advertisements in:
  - 24 Hours (January 24 and January 26)
  - Metro (January 25 and January 27)
  - The Georgia Straight (January 26)
  - “Van Matters” advertising feature in The Courier (January 19 and January 26)
- TransLink website (9,390 page views between January 16 and February 13)
- City of Vancouver website (6,791 page views between January 1 and March 31)
- City of Vancouver’s Greenest City newsletter (4,129 subscribers as of March 31)
- TransLink and the City of Vancouver Facebook and Twitter accounts
- TransLink “Next Bus” text feature (146,707 views between January 16 and February 13)

### 3.2.2 EVENT PARTICIPATION

In total, over 400 people attended the three public open houses. All three events followed the same format, which included informational display boards, an interactive mapping activity, and the online survey. Participants were asked to share their hopes and concerns about the Millennium Line Broadway Extension. They were also asked to comment on a map of the Broadway Extension with their ideas about potential opportunities and impacts of the project during construction and once the project is operational. Finally, participants were invited to leave their outstanding questions after reviewing the information displays.

## 3.3 ONLINE SURVEY

Between January 23 and February 13, 2017, TransLink hosted an online survey on the project website. The online survey was promoted through the website and on social media. It was available on tablet computers at the three open houses. The online survey also was mentioned on the /r/Vancouver “subreddit,” a free, user-moderated discussion forum hosted by Reddit.com that focuses on local Vancouver issues.

- More than 3,700 respondents completed the survey, representing an 82% completion rate. However, an additional 819 respondents submitted survey feedback without clicking the “submit” button, bringing the total to 4,199 respondents.
- This summary includes all feedback received between January 23 and February 13, whether recorded as “complete” or “incomplete.”

- The average respondent completed the survey in less than 15 minutes.

A high-level summary of survey findings is included in this engagement summary, and detailed findings are included in the appendix.

### 3.4 REGION-WIDE POLL

The Mustel Group, an independent market research firm, conducted a telephone survey in January 2017 of 800 adults in Metro Vancouver. Mustel also conducted an enhanced sample of 145 interviews along the Broadway Corridor, defined as areas within 800 metres of the proposed stations.

Poll respondents indicated that preferred sources of information include the TransLink and City of Vancouver websites, plus their Facebook and Twitter accounts. An e-newsletter was also identified as an effective way to reach people within the Broadway Corridor.

Poll respondents also mentioned that they are most interested in participating in online surveys, followed by attending open houses. In the Broadway Corridor, drop-in information sessions and telephone surveys were also mentioned as effective outreach and engagement methods.

## 4 ENGAGEMENT FINDINGS

This section summarizes key themes based on feedback gathered in winter 2016/17. Feedback includes written comments received at stakeholder meetings, public open houses, and through the online survey. The following two bar charts (Figure 3 and Figure 4) summarize the comments received at the two January 19 stakeholder workshops and three public open houses, which together generated over 800 individual written comments about the project. These comments were organized into the ten categories shown on the bar charts. This section summarizes comments in each of the 10 categories and provides some example quotes from participants as examples. An additional 1,490 comments were received through the online survey, and this feedback is also incorporated into the summaries of feedback by category.

Feedback from the stakeholder workshops primarily focused on:

- Construction Methods and Impacts (58 comments);
- Station Design Considerations (38 comments); and
- Project Timeline, Cost, and Funding Sources (37 comments).

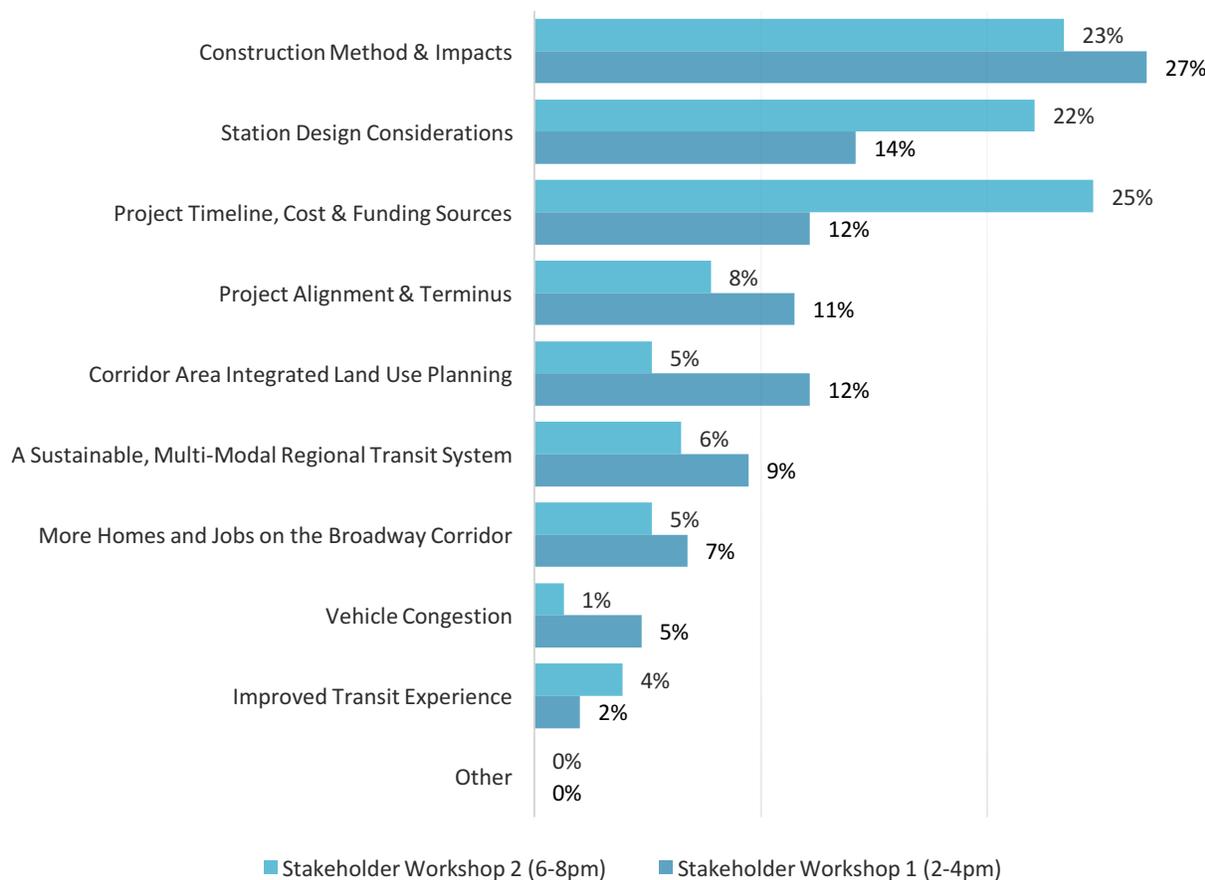


Figure 3: Stakeholder Engagement Responses by Category

Feedback from the three public open houses primarily focused on:

- Project Route and Stations (198 comments)
- Project Timeline, Cost, and Funding Sources (55 comments)
- Station Design Considerations (49 comments)

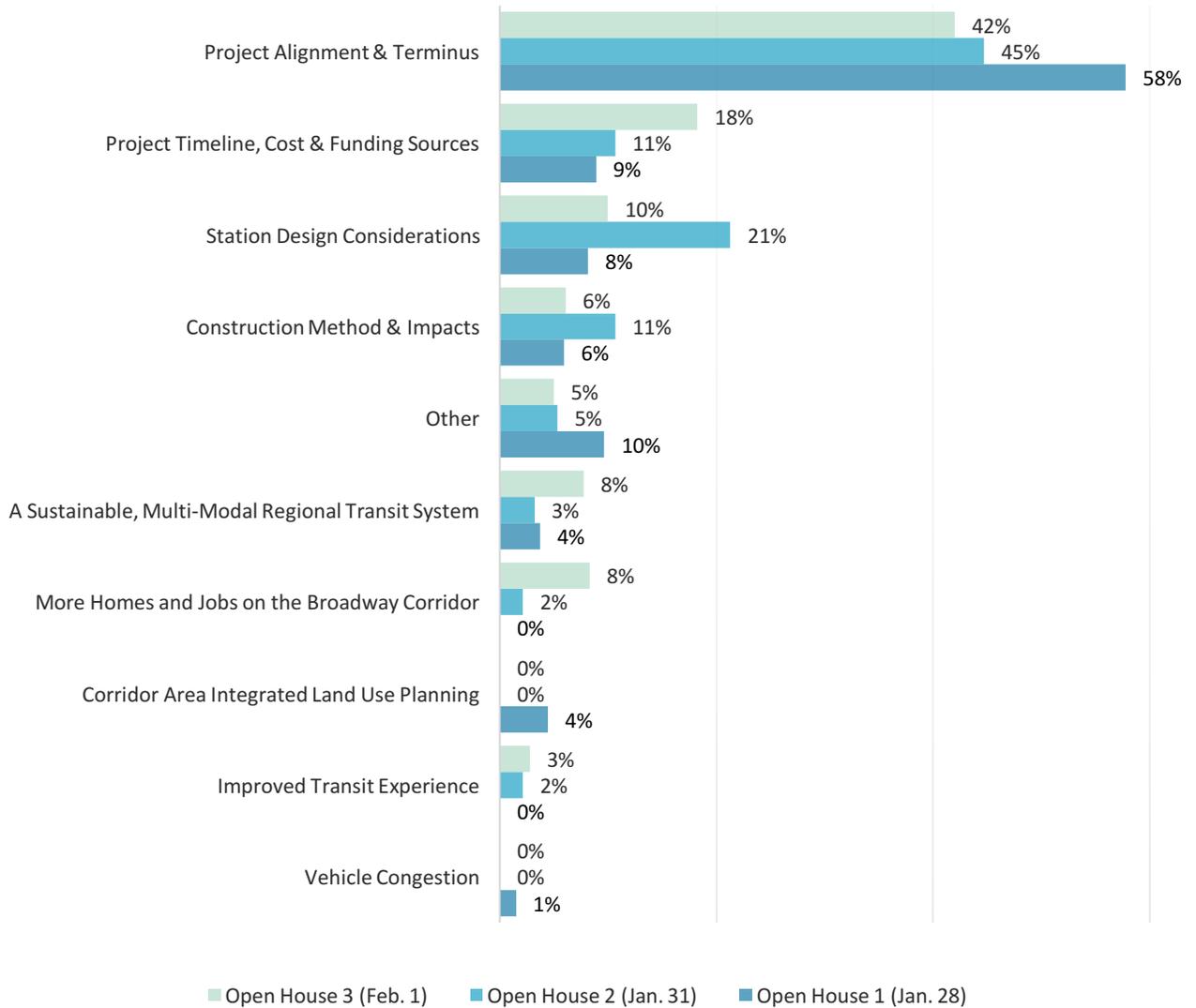


Figure 4 : Public Engagement Responses by Category

Example quotes from participants have been included with the summary of feedback by category. Each comment also indicates which event it came from. The full collection of verbatim comments, along with the details of each event, is included in the Appendix.

Example quotes from each session are labeled as follows to assist with cross-referencing with detailed findings in the Appendix:

<i>Stakeholder Workshop 1</i>	<i>SW 1</i>
<i>Stakeholder Workshop 2</i>	<i>SW 2</i>
<i>Open House 1</i>	<i>OH 1</i>
<i>Open House 2</i>	<i>OH 2</i>
<i>Open House 3</i>	<i>OH 3</i>

## 4.1 PROJECT ROUTE AND STATIONS

Stakeholders and members of the public shared 219 comments about the project route and stations, including many comments about specific station areas. Comments from the events are summarized below.

The online survey asked respondents to share their level of awareness about the Millennium Line Broadway Extension in general and about the project's delivery in two phases.

- 55% of the 4,199 respondents were aware of the project, and 44% were aware that rapid transit to UBC (i.e. the Millennium Line Broadway Extension) would be delivered in two phases, with the VCC-Clark Station to Arbutus Street station delivered first.
- 80% of respondents were "very supportive" of the Extension from VCC-Clark Station to Arbutus Street.
- Of the open-ended survey questions, 42% (631 comments) expressed a desire to extend the Millennium Line to UBC at this time.
- Another 31 comments (2%) related to Arbutus Exchange, and 39 (3%) related to connections between the Millennium Line and the Canada Line at Cambie Street.

### 4.1.1 STATIONS (174 COMMENTS)

#### General (9 comments)

Nine comments reflect an interest in providing input on the station locations.

- "What are the locations of the stations?" *SW 1*
- "Will public have input on station location?" *SW 2*

Participants also shared ideas about the specific station locations as follows:

### VCC - Clark Drive Station (9 comments)

Extending the Millennium Line from VCC - Clark Drive Station raised a few concerns by participants, such as increasing pedestrian traffic to the existing station and concerns about the neighbourhood changing.

- “Increased pedestrian traffic on existing stations.” *OH 2*
- “Affordability / gentrification of neighbourhoods along the new line.” *OH 3*

### Great Northern Way (22 comments)

Several concerns were raised about connections at the Great Northern Way Station. Six participants wanted to know if the streets will connect Broadway and Great Northern Way or if pedestrian connections will be made, and three participants want to know if there will be a shuttle bus to the planned St. Paul’s Hospital site. Two participants were concerned with the integration with the False Creek Flats area plan underway. Two participants expressed concerns of transit riders parking in the residential neighbourhood as there are currently many streets that are not restricted to resident-only parking. Partnering with developers to pay for the station was mentioned. As well, comments identified this as an area for increased infill opportunities.

- “Travellers ‘Park and Riding’ in the residential neighborhood (i.e. Dude Chilling Park).” *OH 1*
- “Lots of opportunities for more infill and higher density in this area of Mt Pleasant, 2nd, North Broadway.” *OH 1*
- “Access from the south for pedestrians – lots of hills and not all streets connect to GNW [Great Northern Way]. Will there be a shuttle or new line to St Paul’s?” *OH 3*

### Main Street (13 comments)

Three participants want the station to feel safe and secure, citing Commercial Drive as a negative example. There were comments as well about the types of activities that might make the station more welcoming – small businesses, restaurants, public art and buskers.

- “Design and location of station in Mt. Pleasant. Do not want security and negative impact per Commercial Drive.” *OH 2*
- “Station should have a design that makes it a desirable destination – public art/ abstract buskers etc.” *OH 3*

### Cambie Street and Canada Line Integration (32 comments)

Eighteen comments focused on the need for good station integration with the existing Canada Line Station at Cambie Street and Broadway. Underground connections were also mentioned, both for pedestrians to avoid a busy intersection crossing, but also for transferring passengers to remain underground while transferring to the Canada Line.

- “If possible, have this station be connected to existing Broadway / City Hall Station. Model these two stations after Commercial/Broadway and avoid having two separate stations (like at Granville and Vancouver City Centre)” *OH 1*
- “Consider underground pedestrian crossing of Broadway / Cambie intersection to relieve busy at-grade crossing.” *OH 2*

- “Hope that this is a better and alternative connection to downtown for Millennium Line via the Canada Line” *OH 3*

### Oak Street (14 comments)

A station at Oak Street is supported by nine participants – particularly Vancouver General Hospital staff who would like to see an access to Laurel Street for easier access to the hospital campus and for safety of those working night shifts. Others thought adding a stop here would defeat the purpose of a rapid transit system as there would be more stopping, lengthening the time of the trip.

- “Make Oak Station with multiple exits to north of Broadway and exit to Laurel St. Easier for VGH staff to board after night shift and evening hours Re: Safety for staff.” *OH 1*
- Improved budget allocation and/or planning re: noise reduction via better track maintenance. “Some sections are at dangerous decibels.” *OH 2*

### Granville Street (21 comments)

Participants raised several issues about a station on Granville Street. Nine participants expressed concerns about mobility issues from an access and getting around perspective. The sidewalks are narrow and crowded in the area. Some questioned how those with mobility issues would have room to maneuver and whether there would be seating opportunities at the station itself. Participants questioned whether there would be two access points to the station at this location. Some spoke in favour of amenities such as retail outlets, while others were concerned that the cost of commercial real estate in the area would increase the presence of large chain stores.

- “Consider space for convenience, stores with stations to top-up compass cards, buy compass cards, etc. like other urban centres.” *OH 1*
- “Good connection to multiple bus lines turning downtown and back.” *OH 1*
- “Loss of affordable retail space. Increase in change of business to large chain store.” *OH 3*
- “Drive more ridership on the transit system overall, this is a vital link!” *OH 3*

### Arbutus Street / Arbutus Exchange (54 comments)

Fifty-four comments expressed a desire for more clarity on what the Arbutus Exchange would look like, and how it would operate. Of concern to participants was the amount of space required for articulated buses to turn around at Arbutus and Broadway, and whether there was enough space to do so without disrupting the existing neighbourhood.

Some participants suggested integrating the Arbutus Exchange with the Arbutus Greenway.

- “How are you going to deal with all of the people (UBC students, etc.) on Arbutus? Is this neighborhood going to be turned into a huge bus depot?” *SW 1*
- “Arbutus already has heavy traffic flow – room for a bus exchange?” *OH 1*
- “Plan with Arbutus Greenway so that there is a seamless connection.” *OH 1*
- “Seems like a good spot for car share or bike share spots.” *OH 3*

#### 4.1.2 RAPID TRANSIT TO UBC (44 COMMENTS)

Forty four comments expressed a need for the Millennium Line Extension to go all the way to UBC right away, rather than waiting for a second phase of construction. Four participants suggested that it would be less expensive to keep the construction process continuous, minimizing project initiation, planning, and mobilization costs.

- “Challenges – 30 years is too long (to complete Phase 2); Could at least carve out the additional stops now (at least plan for later); doesn’t seem like a real plan.” *SW 1*
- “Why stop at Arbutus? Continue all the way to UBC. This will be needed eventually.” *OH 1*
- “Build it to UBC in one go: savings in construction and planning costs; savings from operations from truncating bus service at SkyTrain Stations; Also of note, while Seattle has a mostly grade separated LRT system, the one short street running stretch is causing sufficient problems (car accidents and capacity limitations that there is talk of elevating it).” *OH 1*
- “Hope that this is a system that provides quick transportation to UBC and that encourages dense commercial development along Broadway.” *OH 2*
- “Please work out a cost share arrangement with UBC to continue/ finish the line!” *OH 3*

## 4.2 PROJECT TIMELINE, COST, AND FUNDING SOURCES

Stakeholders and members of the public shared 78 project timeline, funding, and cost-related comments. Comments from these events are summarized below.

Of the seven project considerations shared on the online survey, none specifically referenced project timeline, cost, or funding. However, 12% of open-ended comments from the survey relate to this category, including:

- Desire to speed up construction (78 comments)
- Concerns about how the project will be funded (49 comments)
- Preference for an alternative technology choice (34 comments)
- Support for a cost-effective project (23 comments)
- Concerns about total project cost (18 comments)

#### 4.2.1 TIMELINE (34 COMMENTS)

Thirty-four participants had questions and concerns regarding the project timeline. Eighteen participants expressed a need for the Millennium Line Broadway Extension to get under way as soon as possible. Further clarity on the various stages of the project, especially for extension of rapid transit to UBC (Phase 2), was a common theme in participant comments.

- “Does the fact that there isn’t federal funding yet affect the proposed 2019 start date?” *SW 1*
- “The cost per mile is good on this project compared to similar projects in the US. Please fund it and build it sooner. Needed this years ago!” *OH 1*
- “I support this project and want to see it built A.S.A.P.” *OH 3*
- “The sooner the better – it’s a great plan!” *OH 3*

#### 4.2.2 FUNDING SOURCES (26 COMMENTS)

Twenty-six participants raised concerns about the uncertainty of where funding will come from and how much the extension will cost. They expressed a need for more clarity on both issues.

- “How much will the line cost and how will it be paid for?” *SW 1*
- “Where is the funding coming from? How are developers involved in the process?” *SW 2*
- “TransLink should consider buying up property near stations to rezone / resell them after completion and use profit to offset development costs.” *OH 1*
- “No use of Community Amenity Contributions (CACs) for transit. Need CACs to city for livability. City cannot afford to lose CACs to transit purposes.” *OH 1*
- “The province will finally step up and invest in the Lower Mainland.” *OH 2*
- “Hope that a below grade SkyTrain is not a forgone conclusion and whatever is built is not a Public-Private Partnership (P3).” *OH 3*

#### 4.2.3 PROJECT COST (18 COMMENTS)

Concerns about the cost of the project were mentioned by 11 of the participants. Some had concerns about accountability for the costs. Others were concerned that the project ending at Arbutus wasn't addressing the rapid transit need across the city. Still others were concerned that the costs for this line were going to prevent funding of projects in the south part of the city or be diverted from other regional issues.

- “Need a better answer for how much the project costs.” *SW 2*
- “Decide to build an at-grade system. More livable than underground and costs much less.” *OH 3*
- “All the money going into Broadway – very little, if any, left for 49<sup>th</sup> Ave or north south routes.” *OH 3*

#### 4.2.4 TECHNOLOGY CHOICE (13 COMMENTS)

Twelve participants expressed a need for TransLink to further evaluate other technology options, as opposed to an underground extension. Comments related to this suggested that extending the system underground would be too expensive, and that TransLink should look to other surface transit options instead. Other participants showed their support for an underground extension, though some suggested that the number of stations would slow down the system.

- “Once the detailed figures come back above budget for proposed subway then other more affordable transit options that serve the greater city and region can be explored.” *SW 2*
- “How can a subway be considered when the funding required is 350 mil / km rather than electric trolley buses at 1 mil / km and 1 mil per bus or trams at 20/40 mil / km?” *SW 2*
- “Stop overlooking better, cheaper, faster routes along False Creek” *OH 3*

### 4.3 STATION DESIGN CONSIDERATIONS

Stakeholders and members of the public shared 87 station design consideration-related comments, focused on impacts of the stations on neighbourhood character, station design in general, the need for

pick-up and drop-off areas, future capacity planning, a desire for services in stations, and feedback on station safety. Comments from the events are summarized below.

Of the seven project considerations shared on the online survey, none specifically referenced station design. However, about 8% of open-ended comments from the survey relate to this category, including:

- Plan for longer trains (51 comments),
- Include bicycle access (28 comments),
- Design attractive stations (19 comments),
- Concerns about cleanliness and safety (10 comments), and
- Desire to include retail space (9 comments).

#### 4.3.1 IMPACTS OF STATIONS ON NEIGHBOURHOOD CHARACTER (19 COMMENTS)

Nineteen comments focused on the opportunity for station design to have a positive impact on neighbourhood character. Themes of urban livability, community distinction, and place-making came out in participant comments. Participants suggested that station design could also be used to promote increased transit ridership, possibly through the inclusion of public art. Public art was cited by eight participants as an important inclusion. Along with those comments, participants wondered if there would be opportunities to involve the public in various station design considerations.

- “Transit stations always become hubs for urban livability; new hubs along Broadway will help develop communities within the larger community.” *SW 1*
- “Promote/improve/encourage transit ridership with good, friendly, well designed stations.” *SW 1*
- “Public Art integration including recognition of Musqueam, Squamish, and Tsleil-Waututh” *OH 2*
- “Create a place-making hub at each terminal.” *OH 2*
- “Beautiful public art in the stations, Fewer / no ads. Make riding transit a joyous, inspiring experience!” *OH 3*

#### 4.3.2 SAFETY (19 COMMENTS)

Nineteen participants expressed concerns about public safety at transit station locations. Comments regarding public safety included a concern that the Millennium Line Extension would mean an increase in crime along the Broadway Corridor and surrounding communities, as well as an increased burden on Vancouver Police Department resources.

- “Violent crime, versus property crime, versus bylaw offences, some added drain on VPD.” *SW 1*
- “Consider negative security impact - must extend beyond the actual station footprints.” *SW 2*
- “Increase of crime along the Broadway SkyTrain – many older Vancouverites refuse to take the SkyTrain at night due to safety reasons – criminals can enter / exit SkyTrain quickly.” *SW 2*
- “Where will security people be? On trains, I hope!” *OH 3*

#### 4.3.3 STATION DESIGN (18 COMMENTS)

Eight participants noted a need for specific design considerations to be made at each station, including multiple entrances and exits, more fare gates, and convenient connections to the rest of the transit

system. Six participants suggested that public art should be integrated into station design. Five participants also cited a need for bicycle and car parking to be included at stations. Two participants wanted to learn more about opportunities for pick-up and drop-off.

- “What will parking look like at the stations? Is it being built in or will it look more like existing stations?” *SW 1*
- “Considerations for station locations: places to gather, pick up and drop off.” *SW 1*
- “Public Parking lots/ park and ride – can these be required?” *SW 2*

#### 4.3.4 SERVICES (17 COMMENTS)

Seven participants suggested that public washrooms should be included at each station. Some participants also suggested that attention be paid to designing stations for vision and hearing-impaired transit riders. Other services that participants wanted were large elevators and coffee shops or retail.

- “Assistance to vision impaired / blind travelers during the construction especially here VCC College that has the Vision Impaired Program).” *SW 2*
- “Concerned that not accessible to deaf folks. (Audio only, and expect that all speak and understand English)” *OH 2*
- “Washrooms in stations. Businesses can’t be expected to service transit customers.” *SW 1*
- “Coffee shops or shopping at main stations” *OH 2*
- “Big elevators to accommodate one bicycle, two strollers and a seeing eye dog and humans.” *OH 3*
- “Better service for shops, hospitals, Canada Line transfers.” *OH 3*

#### 4.3.5 FUTURE CAPACITY PLANNING (14 COMMENTS)

Nine participants noted that the planning of new stations should consider the possibility of expansion to accommodate future increases in ridership. Four comments cited issues with the Canada Line with respect to future capacity.

- “Plan station size for 80-100 year expected capacity needs.” *OH 1*
- “Do not under estimate future capacity needs and ridership.” *OH 2*
- “Underground stations large enough to expand as ridership grows. Learn from the Canada Line – stops are too small!” *OH 3*

### 4.4 CONSTRUCTION METHOD AND IMPACTS

Stakeholders and members of the public shared 77 construction method and impacts-related comments, including general comments and concerns about impacts on businesses, residents, and transit riders. Comments from these events are summarized below.

Of the seven project considerations shared on the online survey, three project considerations relate to construction methods and impacts:

- “Providing continuous access to area businesses and services during construction” was rated fourth out of the seven project considerations, with 57% of respondents indicating that it is “Extremely Important” (31%) or “Very Important” (26%).
- “Addressing environmental impacts of construction” was the sixth-rated project consideration with 55% “Extremely Important” and “Very Important” responses.
- “Using underground tunneling technology to minimize construction impacts” was the seventh-rated consideration, with 53% of respondents indicating that it is “Extremely Important” (33%) or “Very Important” (20%).
- Of the open-ended survey comments, 79 (5%) related to concerns about impacts on residents and businesses during construction.

#### 4.4.1 GENERAL (35 COMMENTS)

Stakeholders and the public had several concerns regarding construction method and impacts of construction along the Broadway corridor. In general, participants were concerned with construction disrupting activity along Broadway in terms of access (seven comments) and congestion (six comments), and some were concerned about the possibility of property damage caused during construction (four comments). Eight of the participants shared concerns based on previous experiences with the cut and cover method of construction used for the Canada Line. Participants favored tunnel boring over cut and cover to reduce any disruption.

- “Access, increased traffic, congestion of access points.” *SW 1*
- “Must be all underground. Tunnelled not cut and cover. I survived Canada Line debacle. Put it under 8<sup>th</sup> or 10<sup>th</sup>.” *OH 1*
- “Cut and Cover would be too disruptive.” *OH 2*
- “Tunneling though a major traffic area. Tunnelling at all will lead to large problems long term.” *OH 3*
- “Hope the line will be tunnelled not cut and cover” *OH 3*

#### 4.4.2 IMPACTS ON BUSINESSES (14 COMMENTS)

Fourteen participants were concerned with the construction impacts on the small business community. Clarity for and cooperation with the small business community leading up to and throughout the construction process was highlighted by four participants.

- “Business planning with information about: opportunities, risks, assurances, parking, demolition work, walk-in front doors, accurate timing of construction.” *SW 1*
- “Will monies be set aside to promote local businesses as was done with Cambie?” *SW 2*
- “Address small business concerns during construction (along Broadway). Learn from pain on Cambie during Canada Line construction.” *OH 2*

#### 4.4.3 IMPACTS ON RESIDENTS (5 COMMENTS)

Five comments expressed concerns that construction may disrupt the surrounding communities’ local character, and that sound or shaking may negatively impact nearby residents.

- “Impact to the surrounding area; construction impacts but also long term impact on community character.” *SW 1*

#### 4.4.4 IMPACTS ON TRANSIT RIDERS (4 COMMENTS)

Four comments raised issues regarding disruption to bus service along the Broadway Corridor, insisting that the level of service be maintained during construction.

- “Mitigation challenges for buses during construction.” *SW 1*
- “Maintain services levels during construction.” *OH 2*

### 4.5 A SUSTAINABLE, MULTI-MODAL REGIONAL TRANSIT SYSTEM

Stakeholders and members of the public shared 41 comments about this category, with a focus on general transit expansion and a desire to see improved cycling integration. Comments from these events are summarized below.

The online survey asked respondents to rate seven project considerations.

- The most popular consideration, “Provides fast, frequent, and reliable transit service along the Broadway Corridor” received 80% support, with 66% “Extremely Important” and 14% “Very Important.”
- The third most-popular consideration, “Contributes to a sustainable transportation in Metro Vancouver,” received 75% support, with 57% “Extremely Important” and 18% “Very Important” responses.
- Of the open-ended survey questions, 11% expressed support for an improved transit system, such as reducing passenger congestion (51 comments), decreasing commute time (38 comments), reducing traffic (26 comment), a desire for improved cycling integration (28 comments), and concerns about multiple transfers (17 comments).

#### 4.5.1 GENERAL (32 COMMENTS)

Overall, the general comments were positive. Comments indicate that participants support transit expansion and see the benefits in terms of people served and the cost per rider. Multi-modal integration is a concern that participants want to see addressed. Questions included what the impacts to the bus network will be as well as the move towards autonomous cars and what impact that will have.

- “Autonomous cars are coming. These locations could become holding areas for car share autonomous vehicles.” *SW 1*
- “This is exciting. I am very proud to live in a region where such transit expansion is in the plans.” *OH 1*
- “Much higher benefit for Broadway extension in terms of people served per KM and cost per rider.” *OH 1*

#### 4.5.2 BIKE INTEGRATION (9 COMMENTS)

Nine comments focused on integrate bicycling with the transit system overall. Comments ranged from expanding catchment areas to include cyclists, including bicycle parking and facilities at stations, and allowing bicycles on SkyTrain cars (as well as better accommodating bicycles in train car design).

- “Maximize cycling as a feeder to the transit by expanding the catchment area beyond walking.” *SW 1*
- “Frequent bus routes – bike parking, one elevation to platform, cycling facilities close to stations.” *SW 1*
- “Space for bikes on SkyTrain cars like Canada line!” *OH 3*

#### 4.6 MORE HOMES AND JOBS ON THE BROADWAY CORRIDOR

Stakeholders and members of the public shared 31 comments about this category.

Out of the seven project considerations shared on the online survey, “enables economic growth in the region” ranked fifth with 57% combined “extremely important” and “very important” responses.

Nine participants recognized that the Millennium Line Broadway Extension represented an opportunity to encourage an increase in the housing stock. Participants suggested that work should be done to redefine what density means, to alleviate concerns of residents about increased density.

Twelve participants expressed a concern about housing affordability, gentrification, and displacement, especially near transit stations where land values will inevitably go up. Participants cited a need for more affordable housing, especially along the Broadway Corridor.

- “Increased access to Mount Pleasant: businesses, visitors, employment.” *SW 1*
- “Consideration of space above stations for small / local business and or affordable business / affordable housing.” *SW 2*
- “Increased property values at stop locations and affordability for small business” *OH 3*

#### 4.7 CORRIDOR AREA INTEGRATED LAND USE PLANNING

Stakeholders and members of the public shared 28 corridor area integrated land use planning comments, such as how the project will impact streetscapes, housing affordability, and how it will integrate into Jericho Lands and Arbutus Corridor planning. Comments from the events are summarized below.

The online survey did not ask specifically about integrated land use planning. However, a few open-ended survey comments related to this category, such as helping to link communities together (24 comments, 2%).

#### 4.7.1 GENERAL (16 COMMENTS)

Twelve participants were interested in ensuring that TransLink coordinate with the City of Vancouver to integrate land use and transportation planning along the Broadway corridor. Some participants expressed a need for a land use plan to be in place as soon as possible. Participants cited a need for transit-oriented development planned for at station locations.

- “Ensure that City of Vancouver has a land use plan in place to facilitate appropriate development in connection with operation of the line.” *SW 1*
- “Land use plan in place; transit oriented development; density to create ridership to support high frequency train service.” *SW 1*

Two participants commented on the relationship to planning for the Jericho Lands.

- “Integrate the plan for the Jericho Lands into the overall land/transportation plan for Vancouver.” *SW 1*
- “Jericho Lands. We need to tie that development to / with extension beyond Arbutus.” *OH 1*

#### 4.7.2 ARBUTUS CORRIDOR (3 COMMENTS)

Integration was a concern for three participants regarding the Arbutus Corridor. They wanted to know how the line would affect the new corridor and how the Arbutus Greenway would be incorporated into a station at Arbutus.

- “Arbutus Corridor – how will the new MLBE affect the Arbutus Corridor, and vice versa?” *SW 1*
- “Will the Arbutus Greenway be incorporated into the Arbutus station (i.e. a tunnel across Broadway)?” *SW 1*

#### 4.7.3 AFFORDABILITY IMPACTS (2 COMMENTS)

Two participants expressed concern about affordability impacts and suggested coordinating the transit line planning with land use planning.

- “Coordination with land use planning to avoid property speculation like we saw along Cambie?” *SW 2*

### 4.8 IMPROVED TRANSIT EXPERIENCE

Stakeholders and members of the public shared 13 comments about the potential for the project to provide a better transit experience. Ideas included promoting transit ridership through better station design, increasing mobility options, and alleviating the overcrowded 99 B-Line.

- “Opportunity – Promote/improve/encourage transit ridership with good, friendly, well designed stations.” *SW 1*
- “Increased mobility options for people living and working along the extension.” *SW 2*
- “Less crowded the 99 B-Line has not had an empty seat in years.” *OH 3*

- “The 84 B-Line should be kept because otherwise people around 4<sup>th</sup> Ave. would have to walk a steep uphill to the SkyTrain.” *OH 3*

Out of the seven project considerations shared on the online survey, “Reduces congestion along one of North America’s busiest bus corridors” ranked second with 77% combined “extremely important” and “very important” responses. The most popular consideration, “Provides fast, frequent, and reliable transit service along the Broadway Corridor” received 80% support, with 66% “Extremely Important” and 14% “Very Important.” Open-ended survey comments related to transit experience included concerns about passenger congestion in stations (55 comments), reducing passenger congestion (51 comments), decreasing commute time (38 comments), and concerns about transfers (17 comments).

## 4.9 VEHICLE CONGESTION

Stakeholders and members of the public shared 10 comments about this category. Out of the seven project considerations shared on the online survey, “Reduces congestion along one of North America’s busiest bus corridors” ranked second with 77% combined “extremely important” and “very important” responses. Twenty-six comments (2%) in the open-ended portion of the online survey related to reducing traffic by increasing ridership.

Six participants recognized that the extension presents an opportunity to alleviate traffic congestion by taking more cars off the road.

- “Opportunity to improve traffic flow by taking cars off the road.” *SW 1*
- “Access to VGH/ambulances relieve congestion on Broadway if make related investments in transit priority measures west of Arbutus.” *SW 1*
- “I like this idea. I am hoping it reduces congestion on Broadway” *OH 1*

## 4.10 OTHER

An additional 27 comments could not be coded into the above categories.

# 5 OUTREACH EXTENT AND METHODS

Questions on the region-wide poll and the online survey tracked the geographic diversity of participants. Both input methods also asked participants to respond with how they would like to be involved in the process going forward.

More information is included in the Appendix.

## 6 NEXT STEPS

The next round of stakeholder and public engagement will be later this year. The Millennium Line Broadway Extension project team will seek input on construction period requirements and design elements.

A final phase of stakeholder and public engagement will shape the detailed design of the Millennium Line Broadway Extension. At that time, the team will share information about the feedback gathered this year.

More information about the Millennium Line Broadway Extension, including engagement opportunities, is available on both TransLink and the City's websites at [translink.ca/broadwayextension](http://translink.ca/broadwayextension) or [vancouver.ca/broadwayextension](http://vancouver.ca/broadwayextension).