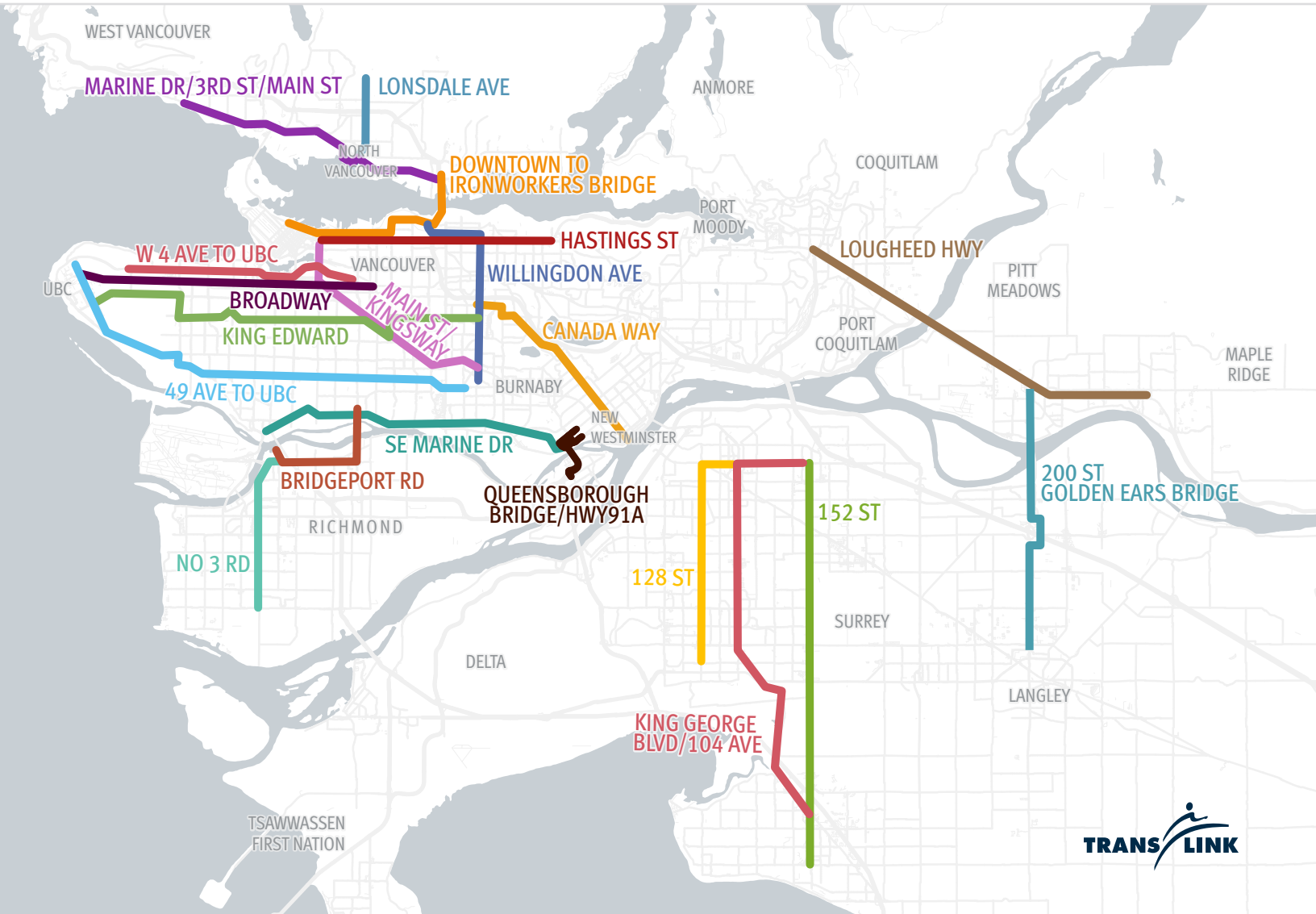
Appendix B: Profile Areas

In order to facilitate more focused conversations about opportunities to reduce delay across the region, 20 profile areas are analyzed in greater depth. These areas are not simply the top 20 most-delayed corridors, although they were primarily selected based on the amount of person-delay per kilometre. Routes prioritized in the near term as future RapidBus or Bus Rapid Transit lines in TransLink's 10 Year Priorities are also included, while corridors with work already underway are excluded. In order to better align with existing and planned bus routes, some profile areas overlap with parts of more than one corridor.

A map of the profile areas illustrates their extents, and the list at the right provides the page number.

Map of the 20 Profile Areas



TYPES OF SPEED AND RELIABILITY ISSUES IDENTIFIED

The table below describes the types of issues that have been identified for each profile area and their effect on bus speed and reliability.

Issue	What does it mean?
Motorists turning left (or other delay from left-turns)	Where left-turns are permitted at intersections without left-turn lanes, a single automobile can block a full travel lane and slow down all traffic. Where buses make left turns, lack of turn signals, short turn phases, or difficulty accessing turn lanes can require several traffic light cycles before a bus can make a left-turn.
Motorists turning right (or other delay from right-turns)	In most places, right-turning motorists must wait for pedestrians to cross the street before turning. Where pedestrian activity is high, a single right-turning motorist can block a full travel lane for an entire green phase.
Roadway congestion	Roadway congestion—or traffic—affects transit customers more acutely than other travelers on the roadway as buses are not able to select an alternative path of travel. Congestion also increases all other types of delay, e.g., left-turns, right-turns, and access/exit from bus stops.
Closely spaced driveways or other roadways	Driveways or other minor streets that are very close together slow down buses and all traffic as motorists make frequent right turns to enter and exit the roadway. Management of the roadway curb space can provide more capacity for all modes, including transit.
Re-entering traffic from bus stops	Bus stop design (along with location) can affect how quickly and easily buses are able to pull into and out of bus stops. This impacts travel time and reliability.
Location of bus stops	The location of bus stops can increase the likelihood of buses encountering delay reentering traffic or waiting at traffic lights.
Short spacing between bus stops	Stop spacing refers to the distance between bus stops along a route. Stops that are too closely spaced may reduce walking distance for individual riders, but slow buses down along a route and can lead to extra acceleration and deceleration time, additional delay reentering traffic, and less reliable service.
Pedestrian movements (including pedestrian signals)	When pedestrian crossings are unsignalized and/or uncoordinated with traffic signals, transit customers may get stopped at consecutive intersections. This greatly affects customer travel time and reliability of schedules. A bus may also be delayed making a right turn when pedestrian activity is high.
Uncoordinated traffic signals	When traffic signals are coordinated for transit, buses travel through intersections on a “green wave.” When traffic signals are uncoordinated, buses may get stopped at red lights at consecutive intersections. This greatly affects customer travel time and reliability of schedules.

Issue	What does it mean?
Schedules and/or timepoints	Timepoints are useful to let riders know when to expect buses to arrive and keep buses from running ahead of schedule, but optimizing schedules and timepoints can prevent passengers from unnecessary wait time on the bus while buses catch up to the schedule.
HOV or bus-only lane violations	Posted lane restrictions that are not observed by motorists or vehicles illegally stopping in the curb lane to drop off passengers can delay buses and make HOV or bus-only lanes less effective.
Overhead trolley wire-related delays/conflicts	On roads with multiple frequent trolley bus lines, buses can be delayed due to lack of overhead wires that allow them to pass other trolley buses at bus stops.
Pedestrian access and/or safety	Roads that lack safe crossings or accessible walking routes to bus stops affect peoples' ability to catch the bus and are part of a comfortable experience using transit. Safe and accessible crossing are important, but infrastructure such as pedestrian-activated signals and midblock crossings can cause unreliable bus service when not coordinated with traffic signals.
Bus/bicycle interactions	Bus-only lanes that are shared with bicycles may be suitable for slow-to moderate-speed roadways when separate bicycle facilities cannot be provided but may not be optimal when bus and/or bicycles volumes are very high. Bus and bicycle interactions may also occur when a bus must cross a non-grade-separated bicycle facility to pull over to a bus stop.
Freight rail crossings	Frequent freight rail crossings can cause long and unpredictable delays that severely impact bus reliability.

BROADWAY

Corridor Description

- The Broadway corridor connects multiple key north-south streets including Commercial Drive, Main Street, Cambie Street, and Granville Street.
- Broadway connects the Expo, Millennium, and Canada lines by serving the Commercial-Broadway and Broadway-City Hall stations.
- The surrounding neighbourhoods include key destinations like Vancouver City Hall, UBC, and Vancouver General Hospital.
- Broadway is the second largest employment corridor in British Columbia after the downtown Vancouver business district.

Quick Facts

Length	13.1 km
Subregion	Vancouver/UBC
Primary Routes	9, 99
All Routes	4, 8, 9, 14, 44, 84, 99, N8, N9, N17

Notes: Corridor ranked #1 for person-delay per km in Fall 2021. Profile area adds an extension to UBC. Ridership is reported for the location with the most cumulative passengers on-board the bus throughout the day. Broadway Subway construction likely had an impact on delay during this time period.

40
Maximum hourly bus trips per direction

1,750
Person-hours of delay per day

40,300
Total households (1,900/km² density)

37%
Low income households

33%
Zero vehicle households

11,700
Total ridership (daily load in one direction)

92
Bus-hours of delay per day

Demographics within 400m of corridor

Corridor Significance

- **Broadway is a well-served and well-utilized transit corridor.** During weekday peak hours, there is a bus every 2-3 minutes on Broadway. The 99 B-Line sees over 29,000 boardings each weekday. Nearly 60% of people traveling on some parts of Broadway are on buses during morning rush hours. Broadway ranks third among profile areas in the share of zero-vehicle households.
- **Bus performance along Broadway has an enormous impact on regionwide bus service.** More than 13% of Vancouver/UBC bus boardings start in this corridor. During heavier traffic, an end-to-end trip on Broadway can take nearly 13 minutes longer compared to a best-case trip, when the bus is able to move smoothly along the corridor. People experience a total of 1,750 person-hours of delay per day on Broadway, the highest of all profile areas.

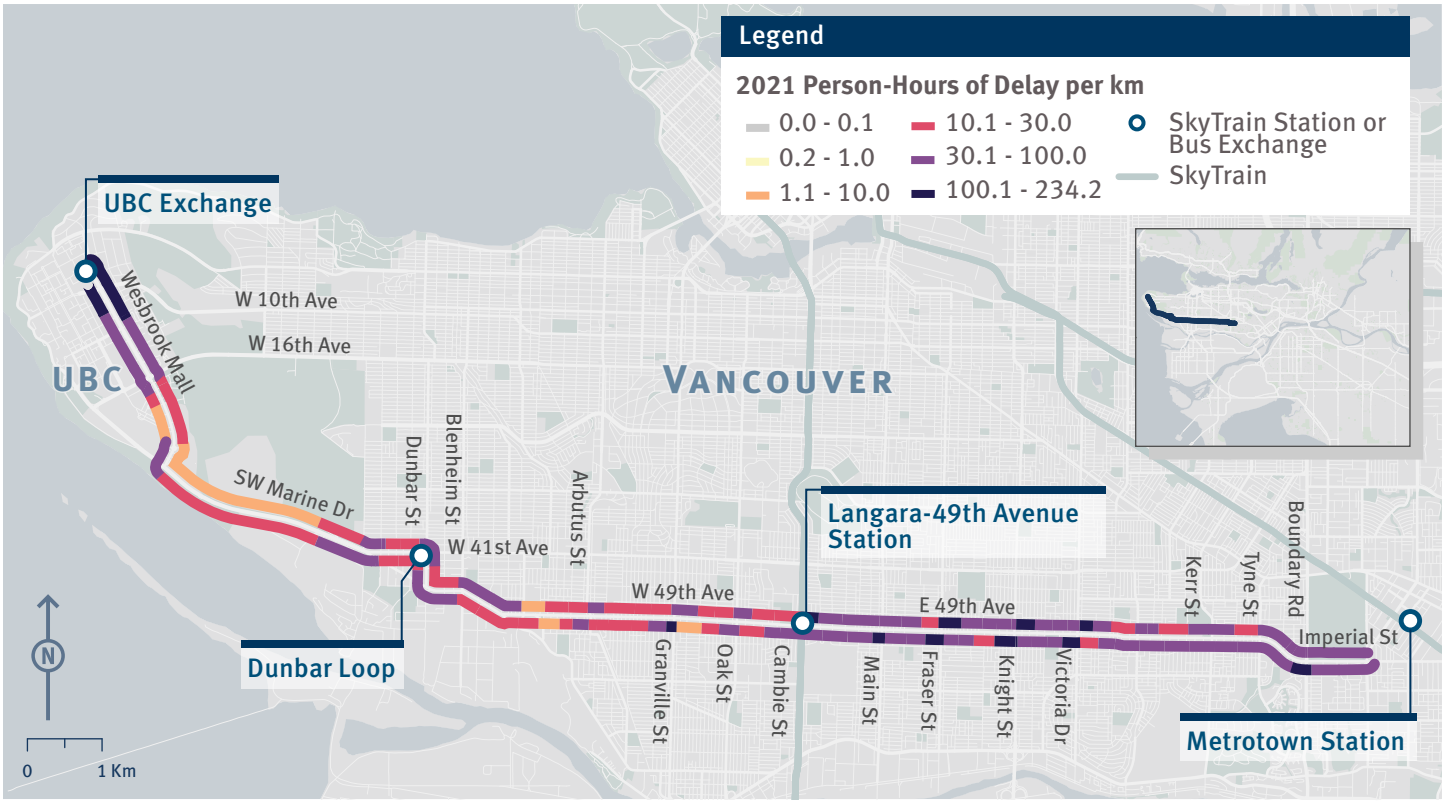
Key Challenges for Bus Speed & Reliability

- Bus service continues to be important during and after the Broadway Subway extension.
- Construction of the Broadway Subway extension limits the lanes for vehicle travel and causes added delay for buses.
- Prior to construction, bus lanes were only active during peak-hours, in the peak direction. Existing peak hour bus lanes were removed between Main Street and Arbutus Street. Bus lanes continue to be active during peak-hours, in the peak-direction, east of Main St and west of Arbutus St. -Both before and during construction, bus lanes during peak hours only are insufficient in providing speed and reliability to those travelling during off-peak hours and on evenings and weekends.

Location of Common Causes of Bus Delay

Issue	Location(s)
Motorists turning left (or other delay from left-turns)	• EB University Blvd at Wesbrook Mall • EB/WB Broadway between Arbutus St and Alma St • EB Broadway at MacDonald St • EB/WB Broadway at Arbutus St • EB Broadway at Woodland Dr • EB Broadway at Commercial Dr
Motorists turning right (or other delays from right-turns)	• EB Broadway at Alma St • EB Broadway at MacDonald St • EB Broadway from Heather St to Kingsway • EB/WB Broadway at Clark Dr • WB Broadway from Kingsway to Main St • WB Broadway at Cambie St • WB Broadway at Hemlock St • EB/WB University Blvd at Wesbrook Mall
Roadway congestion	• Throughout the profile area, especially from Arbutus St to Granville St, and from Main St to Clark Dr
Re-entering traffic from bus stops	• Throughout the profile area, especially from Arbutus St to Granville St, Birch St to Kingsway, and at Clark Dr
Short spacing between bus stops	• EB Broadway from Main St to Kingsway • WB University Boulevard at Wesbrook Mall
Pedestrian movements (including pedestrian signals)	• EB/WB Broadway at University Blvd • EB/WB Broadway at Alma St • EB Broadway at MacDonald St • EB/WB Broadway at Clark St
Uncoordinated traffic signals	• Throughout the profile area at major intersections, especially between Alma St to Kingsway
HOV or bus-only lane violations	• EB Broadway from Granville St to Cambie St
Overhead trolley wire-related delays/conflicts	• EB Broadway at Alma St • EB Broadway at Fraser St

49 AVE TO UBC



Corridor Description

- The 49 Ave corridor is served by lines 49 and 430 and directly connects the Expo and Canada Lines in serving the Metrotown and Langara-49th Avenue stations.
- The surrounding neighbourhoods feature key education destinations as the corridor serves multiple elementary and secondary schools, Langara College, and UBC.

Quick Facts

Length	19.9 km
Subregions	Vancouver/UBC, Burnaby/ New Westminster
Primary Routes	49; 430, R4
All Routes	25, 26, 31, 33, 41, 49, 68, 430, R4

Notes: Consists of the Wesbrook Mall and 49 Ave corridors, ranked #3 and #5 for person-delay per km in Fall 2021, respectively. Ridership is reported for the location with the most cumulative passengers on-board the bus throughout the day; lower end of the range accounts only for routes using the corridor for at least 1 km and upper end of the range reflects all routes.

76
Maximum hourly bus trips per direction

1,740
Person-hours of delay per day

24,300
Total households (700/km² density)

39%
Low income households

11%
Zero vehicle households

6,500-13,100
Total ridership (daily load in one direction)

76
Bus-hours of delay per day

Demographics within 400m of corridor

Corridor Significance

- **49 Ave is served by the second busiest bus route in the region**. Route 49 has over 22,000 boardings each weekday and provides an important east-west connection between the Canada and Expo lines, with 3,500 daily boardings at Langara Station and 2,900 daily boardings at Metrotown Station. Approximately 8% of bus journeys in Vancouver/UBC begin on 49 Ave. Approximately a third of people traveling along 49 Ave in the morning rush hours are on buses. And buses carry almost 50% of people travelling along Wesbrook Mall at peak hours. The share of low-income households along 49 Ave ranks third among profile areas.
- **49 Ave has the highest variability among areas profiled.** During heavier traffic, an end-to-end trip between Metrotown Station and UBC can take over 18 minutes longer compared to a best-case trip, when the bus is able to move smoothly.
- **A portion of 49 Ave is a proposed future BRT line in TransLink's *10-Year Priorities*.** People travelling on 49 Ave experience a total of 1,740 person-hours of delay daily, the second highest of all profile areas. Improvements to reduce congestion on 49 Ave will improve reliability and support transit expansion in the future.

Key Challenges for Bus Speed & Reliability

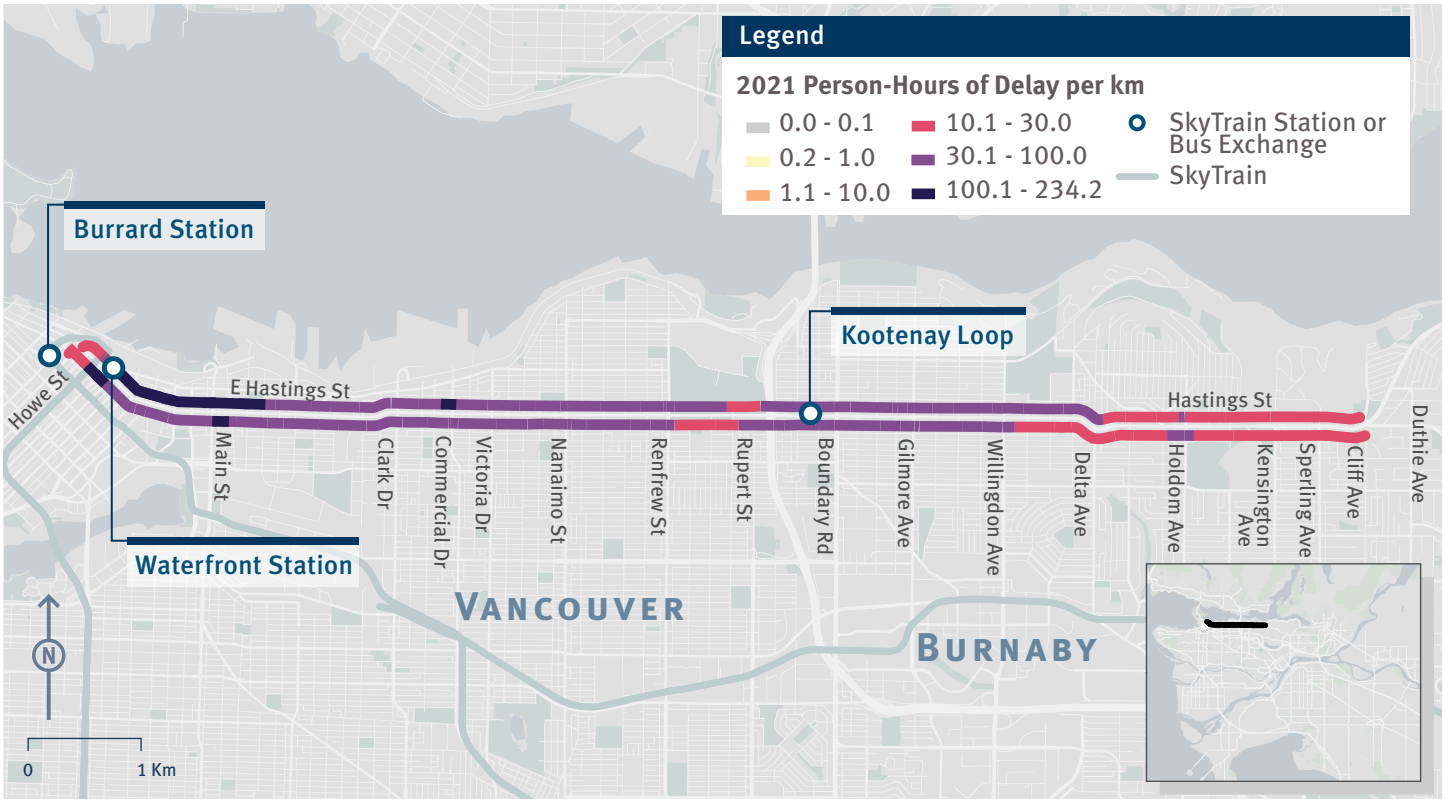
- Narrow and lengthy corridor, often with one travel lane in each direction. Heavy demand for left and right turns at major intersections and minor intersections with few turn lanes.
- Parking permissions throughout the corridor are not consistent and conflict with peak periods of travel adding to delays throughout the corridor.
- Traffic signals, including pedestrian signals, are not coordinated which contributes to delay along the corridor.

Location of Common Causes of Bus Delay

Issue	Location(s)
Motorists turning left (or other delay from left-turns)	• SB Wesbrook Mall at SW Marine Dr • EB SW Marine Dr at Dunbar St • WB 41 Ave at Dunbar St • EB/WB 49 Ave at Arbutus St • EB/WB 49 Ave at Granville St • WB 49 Ave at Alberta St • EB/WB 49 Ave at Main St • EB/WB 49 Ave at Fraser St • EB/WB 49 Ave at Victoria Dr • WB 49 Ave at Elliot St • WB 49 Ave at Kerr St • EB 49 Ave at Tyne St • EB/WB 49 Ave at Boundary Rd • EB Imperial St at Willingdon Ave
Motorists turning right (or other delay from right-turns)	• NB Wesbrook Mall at Thunderbird Blvd • SB/NB Dunbar St at 41 Ave • EB/WB 49 Ave at Arbutus St • WB 49 Ave at Oak St • WB 49 Ave at Cambie St • EB/WB 49 Ave at Main St • EB/WB 49 Ave at Fraser St • EB/WB 49 Ave at Knight St • EB/WB 49 Ave at Victoria Dr • WB 49 Ave at Willingdon Ave

Issue	Location(s)
Roadway congestion	• NB/SB Wesbrook Mall between University Blvd and SW Marine Dr • EB/WB from 41Ave to Blenheim St via Dunbar St • EB/WB 49 approaching major intersections including Arbutus St, Granville St, Oak St, Cambie St, Main St, Fraser St • EB/WB 49 Ave from Knight St to Kerr St • EB/WB 49 Ave from Tyne St to Willingdon Ave
Closely spaced driveways or other roadways	• WB 49 Ave at Elliot St
Re-entering traffic from bus stops	• WB 49 Ave at Blenheim St • WB 49 Ave from Macdonald St to Dunbar St
Location of bus stops	• EB 49 Ave at Fraser St • WB 49 Ave at Victoria Dr
Short spacing between bus stops	• EB 41 Ave from Alma St to Dunbar St • EB 49 Ave from Adera St to Granville St • EB 49 Ave at Fraser St • WB 49 Ave at Victoria Dr • WB 49 Ave from Knight St to Inverness St
Pedestrian movements (including pedestrian signals)	• SB Wesbrook Mall from W 16th Ave to Ross Dr • NB Wesbrook Mall from Agronomy Rd to University Blvd • SB/NB Dunbar St at 41st Ave • EB 49 Ave at Arbutus St • EB/WB 49 Ave at Langara-49th Station • EB/WB 49 Ave between Alberta St and Ontario St • EB/WB 49 Ave at Main St • EB/WB 49 Ave at Fraser St • EB 49 Ave at Knight St • EB 49 Ave at Victoria Dr • EB 49 Ave at Killarney St • EB 49 Ave at Kerr St • EB 49 Ave at Boundary Rd
Uncoordinated traffic signals	• SB Wesbrook Mall from W 16 Ave to Ross Dr • EB 49 Ave at Oak St • EB 49 Ave at Cambie St • EB/WB 49 Ave between Alberta St and Ontario St • EB/WB 49 Ave at Main St • EB/WB 49 Ave at Boundary Rd
Bus/bicycle interactions	• EB SW Marine Dr at Dunbar St • WB 49 Ave at Oak St • EB 49 Ave at Cambie St

HASTINGS ST



Corridor Description

- Northernmost continuous east-west arterial across Vancouver and Burnaby, connecting neighbourhoods, employment, goods, services, and other destinations. Routes serve the Northeast Sector and North Shore.
- Direct connection to Barnet Hwy (extending furthest east to Port Moody, Coquitlam, Port Coquitlam, Maple Ridge, Pitt Meadows, and beyond) and Hwy 1 (extending to the City of North Vancouver and District of North Vancouver).
- Very high combined frequency of service: R5 RapidBus connects Downtown Vancouver and Simon Fraser University; many local bus routes serve parts of the corridor, including Route 130 through Burnaby Heights and Route 160 between Burnaby Heights and Port Coquitlam.

Quick Facts

Length	11.7 km
Subregions	Vancouver/UBC, Burnaby/ New Westminster
Primary Routes	R5
All Routes	3, 8, 14, 16, 20, 28, 129, 130, 131, 132, 160, 222, R5, N8, N20, N35

Notes: Corridor ranked #4 for person-delay per km in Fall 2021. Ridership is reported for the location with the most cumulative passengers on-board the bus throughout the day; lower end of the range accounts only for routes using the corridor for at least 1 km and upper end of the range reflects all routes.

47
Maximum hourly bus trips per direction

1,200
Person-hours of delay per day

27,000
Total households (1,500/km² density)

43%
Low income households

30%
Zero vehicle households

4,200-8,000
Total ridership
(daily load in one direction)

96
Bus-hours of delay per day

Demographics within 400m of corridor

Corridor Significance

- **Hastings is a well-served and well-utilized transit corridor.** The R5 RapidBus along with Routes 14, 16, and 20 operate through downtown Vancouver. R5 and Route 130 are the most heavily used bus routes in Burnaby. Combined, these five routes have more than 50,000 boardings each weekday. Buses on Hastings St arrive every 2-3 minutes or more often throughout the day. Entering downtown Vancouver, Hastings St has a bus mode share of more than 40% in the AM peak.
- **Performance on Hastings has an enormous impact on regionwide transit service.** The above routes, along with Route 160 serving Port Coquitlam, all serve FTN corridors that provide important connections to UBC and throughout the region. Hastings St ranks first in bus delay per kilometre among profile areas. During heavier traffic, an end-to-end trip between Kensington and Burrard Station can take over 13 minutes longer compared to a best-case trip, when the bus is able to move smoothly.
- **Social equity need along Hastings is significant.** Among profile areas, Hastings St ranks second for the share of low-income households and fourth for the share of zero-vehicle households.
- **Transit improvements are under consideration.** The Hastings Street Improvement Project is considering a range of mobility improvements along Hastings St in Burnaby. Upgrading R5 to a BRT line is identified in TransLink's *10-Year Priorities*.

Key Challenges for Bus Speed & Reliability

- Bottleneck at Hwy 1 affects the entire corridor. Westbound Hastings between Boundary Rd and Hwy 1 is a critical bottleneck to the North Shore (130) and Downtown Vancouver.
- Some intersections lack left-turn pockets or adequate right-turn lanes, contributing to delay for buses and all vehicles. Some left-turns are restricted in the PM peak.
- Mismatch between HOV lane hours across jurisdictions exacerbates compliance challenges. Current hours are not long enough to address delay at all times of day and on weekends.
- Timing of pedestrian signals affects overall signal coordination and flow of buses along the corridor.

Location of Common Causes of Bus Delay

Issue	Location(s)
Motorists turning left (or other delay from left-turns)	• WB Hastings at Inlet Dr • WB/EB between Gilmore Ave and Willingdon Ave • WB/EB between BC-1 and Victoria Ave
Motorists turning right (or other delay from right-turns)	• WB/EB at Willingdon Ave • WB/EB at Gilmore Ave • WB/EB at Renfrew St • WB at Nanaimo St • WB/EB at Clark Dr • WB/EB between Granville St and Main St
Roadway congestion	• WB Alpha Ave to Gilmore Ave • EB Ingleton Ave to Alpha Ave • WB/EB at Boundary Rd • WB/EB between Renfrew St and Templeton Ave • WB/EB at Commercial Dr • WB/EB between Princess Ave and Burrard Street
Location of bus stops	• EB at Commercial Dr

Issue	Location(s)
Pedestrian movements (including pedestrian signals)	• WB/EB between Gilmore Ave and Hythe Ave • WB/EB between Renfrew St and Commercial Dr • WB/EB between Main St and Granville St
HOV or bus-only lane violations	• WB/EB between Inlet Dr and Gilmore Ave (HOV) • EB between Commercial Dr and Nanaimo St

KING GEORGE BLVD / 104 AVE

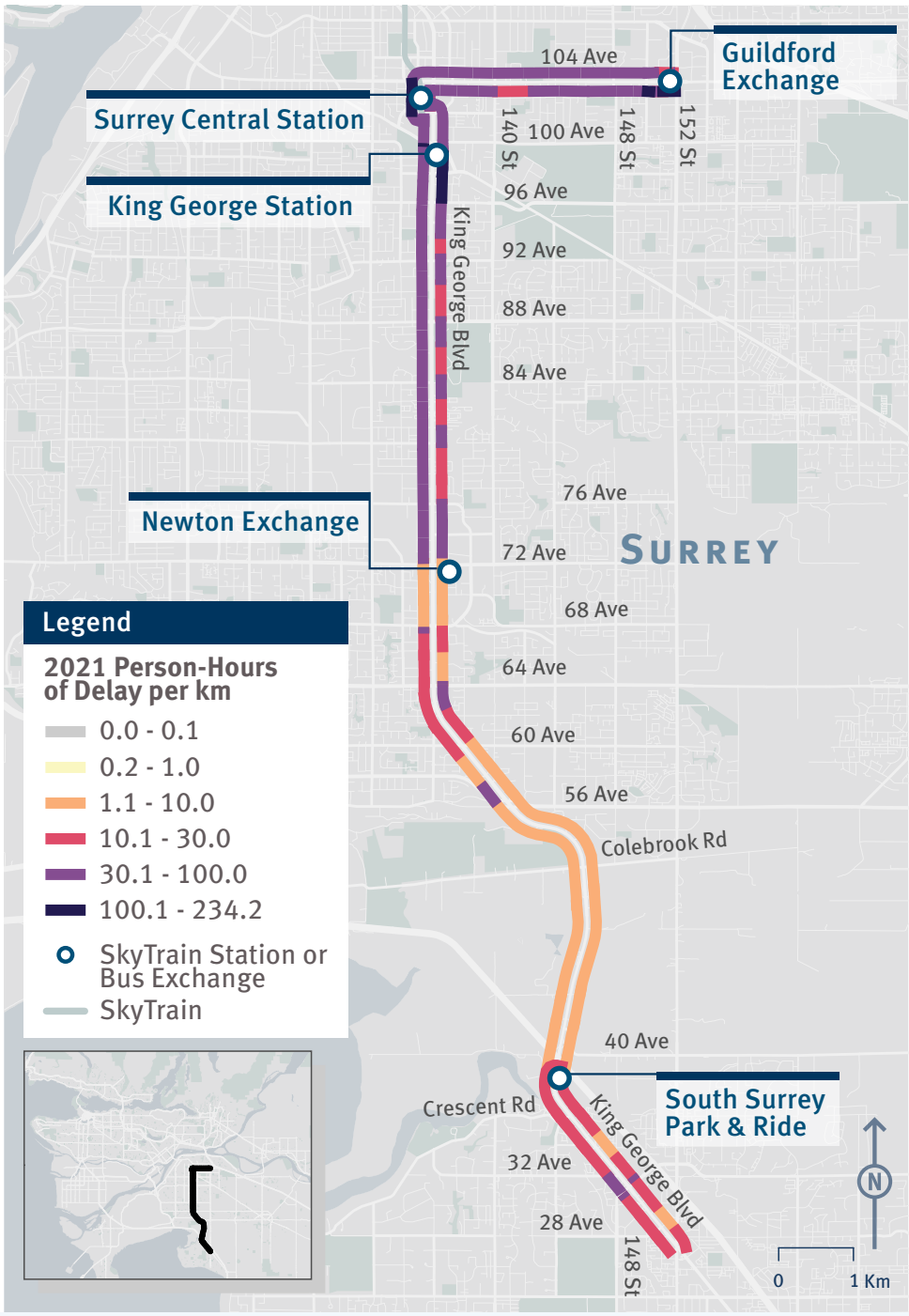
Corridor Description

- The R1 RapidBus links King George Blvd and 104 Ave as a single, continuous transit corridor between the Newton Exchange and Guildford Town Centre. Routes 321 and 394 run continuously along King George Blvd between Surrey Central and South Surrey Park & Ride.
- This corridor connects Surrey's most populated urban town centres to key destinations such as downtown Surrey, City Hall, Surrey Memorial Hospital, SFU, and the Expo SkyTrain.
- At the heart of this corridor is Surrey Central Station where many of the busiest routes in Surrey and Langley originate or pass through. This area is a regional target for future growth.

Quick Facts

Length	20.7 km
Subregion	Southeast
Primary Routes	320, 321, 337, R1
All Routes	314, 320, 321, 326, 329, 337, 351, 352, 354, 363, 375, 393, 394, 501, 502, 503, 509, R1

Notes: Consists of the King George Blvd and 104 Ave corridors, ranked #23 and #8 for person-delay per km in Fall 2021, respectively. Ridership is reported for the location with the most cumulative passengers on-board the bus throughout the day; lower end of the range accounts only for routes using the corridor for at least 1 km and upper end of the range reflects all routes.



44
Maximum hourly bus trips per direction

1,260
Person-hours of delay per day

18,100
Total households (400/km² density)

34%
Low income households

10%
Zero vehicle households

Demographics within 400m of corridor

6,300-11,100
Total ridership
(daily load in one direction)

72
Bus-hours of delay per day

Corridor Significance

- **King George Blvd is a major transit corridor.** More than a quarter of bus journeys in Southeast begin on this corridor. During morning rush hours, buses carry approximately 30% of the people traveling through the northern and central parts of the corridor. During weekday peak hours, a bus arrives every 2-3 minutes.
- **Variability along King George Blvd is third highest among areas profiled.** During heavier traffic, an end-to-end trip between South Surrey and Guildford can take 17 minutes longer compared to a best-case trip, when the bus is able to move smoothly. King George Blvd has the sixth highest person-hours of delay per kilometre among profile areas.
- **King George Blvd is a key area for continued investment in transit priority.** In 2021, the R1 RapidBus saw over 11,000 average daily boardings, the highest among all routes on the corridor. Building on the success of the R1 line, TransLink's *10-Year Priorities* includes a possible extension of RapidBus service or conversion to BRT.

Key Challenges for Bus Speed & Reliability

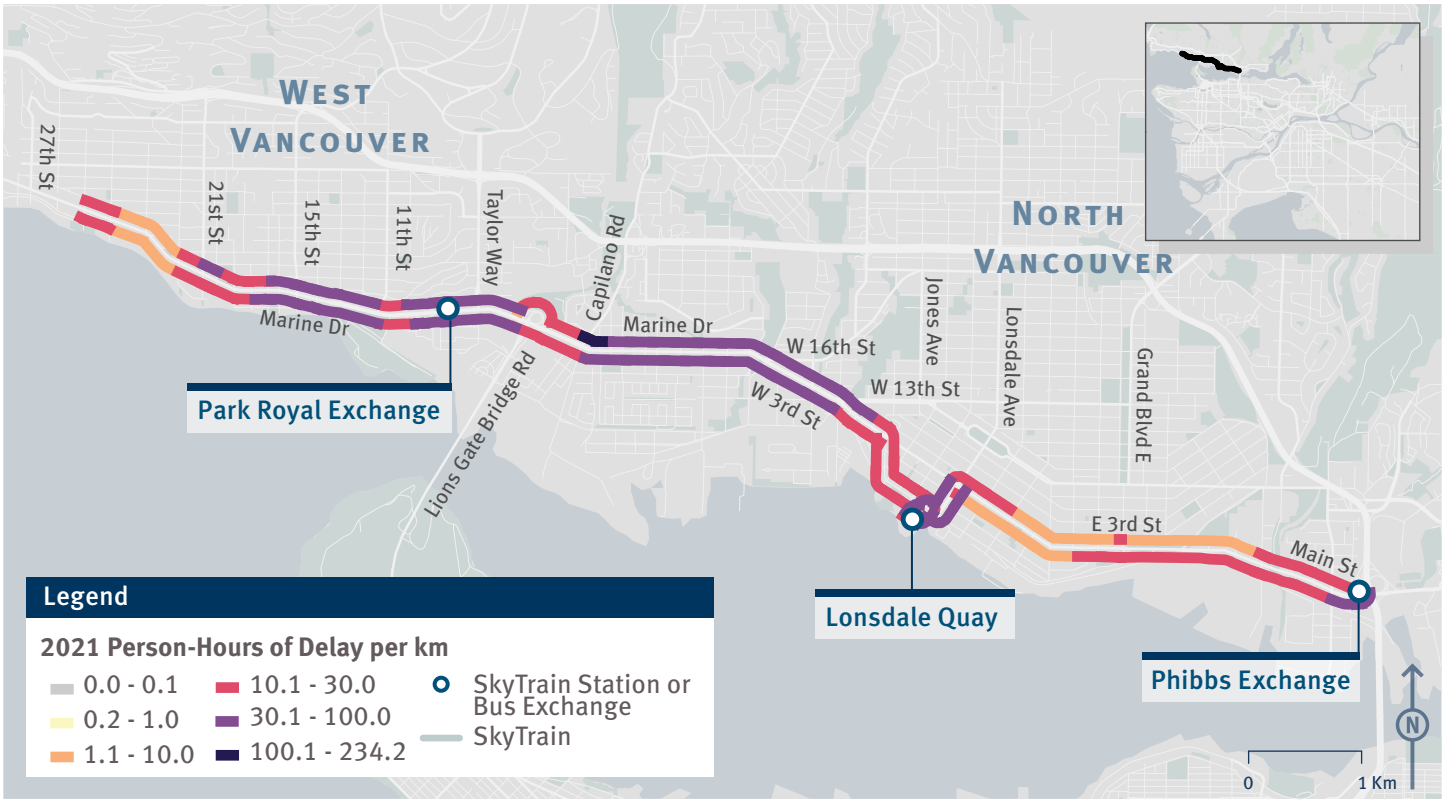
- Segments of King George Blvd and 104 Ave are narrow and constrained by development on either side.
- Vehicles entering and exiting the roadway via closely spaced driveways causes delay.
- Bike lanes along King George Blvd are adjacent and/or shared with bus lanes which may slow buses down.

Location of Common Causes of Bus Delay

Issue	Location(s)
Motorists turning left (or other delay from left-turns)	• SB King George Blvd at 148 St • SB King George Blvd at 72 Ave • NB King George Blvd at 76 Ave • NB King George Blvd at 100 Ave • NB King George Blvd at 102 Ave • SB City Parkway at 102 Ave • NB/SB City Parkway at 104 Ave • EB/WB 104 Avenue at 152 St
Motorists turning right (or other delay from right-turns)	• SB King George Blvd at Highway 10 • NB King George Blvd at 68 Ave • NB/SB King George Blvd at 76 Ave • SB King George Blvd at 78 Ave • NB King George Blvd at 88 Ave • EB 104 Ave at King George Blvd • EB/WB 104 Ave at 150 St • EB/WB 104 Ave at 152 St
Roadway congestion	• NB/SB King George Blvd between 32 Ave Diversion and 148 St • SB King George Blvd at Highway 10 • NB King George Blvd from 62 Ave to 64 Ave • NB King George Blvd from 68 Ave to 72 Ave • NB King George Blvd at 76 Ave • SB King George Blvd from 84 Ave to 68 Ave • NB/SB King George Blvd between 96 Ave and 102 Ave • NB/SB City Parkway between 102 Ave and 104 Ave • EB/WB 104 Ave between City Parkway and Whalley Blvd • EB/WB 104 Ave between 148 St and 150 St • EB /WB 104 Ave at 152 St

Issue	Location(s)
Closely spaced driveways or other roadways	• NB King George Blvd from 29A Ave to 148 St • NB King George Blvd from 146A St to Crescent Rd • NB King George Blvd at 72 Ave • NB King George Blvd at 76 Ave • NB King George Blvd from 96 Ave to 98A Ave • NB King George Blvd from 100 Ave to 102 Ave • NB City Parkway from 102 Ave to 104 Ave • EB 104 Ave from King George Blvd to Whalley Blvd • EB 104 Ave from 149 St to 150 St
Re-entering traffic from bus stops	• NB King George Blvd at 152 St • NB King George Blvd at 29A Ave • NB King George Blvd at 64 Ave • NB King George Blvd at 76 Ave • NB King George Blvd at 88 Ave • WB 104 Ave from 152 St to 150 St
Location of bus stops	• SB King George Blvd at Highway 10
Short spacing between bus stops	• NB King George Blvd from 34 Ave to Crescent Rd • NB King George Blvd at 100 Ave
Pedestrian movements (including pedestrian signals)	• SB King George Blvd from 32 Ave to 148 St • NB King George Blvd at 148 St • NB/SB King George Blvd at King George Station • NB/SB King George Blvd at Surrey Central Station • WB 104 Ave at 150 St
Uncoordinated traffic signals	• SB from 148 St to 32A Ave • NB King George Blvd at 34 Ave • NB/SB King George Blvd between 100 Ave and 102 Ave • NB/SB City Parkway between 102 Ave and 104 Ave • EB 104 Ave at 152 St
Schedules and/or timepoints	• NB/SB King George Blvd at King George Station
HOV or bus-only lane violations	• WB 104 Ave at Guildford Exchange
Bus/bicycle interactions	• NB King George Blvd at 152 St • NB King George Blvd at 148 St • SB King George Blvd at 76 Ave

MARINE DR / 3RD ST / MAIN ST



Corridor Description

- The Marine Drive and 3rd/Main Street corridor provides access to key destinations along the North Shore waterfront including Park Royal and Lonsdale Quay.
- The corridor connects the North Shore subregion with the Sea to Sky region and rest of the Metro Vancouver region.
- The R2 RapidBus line connects to many other North Shore transit lines at Park Royal, Lonsdale Quay, and Phibbs Exchange.
- Surrounding areas feature shopping, restaurants, and the North Vancouver waterfront.

Quick Facts

Length	13.0 km
Subregion	North Shore
Primary Routes	R2, 255
All Routes	228, 231, 232, 236, 240, 241, 246, 247, 249, 250, 251, 252, 253, 254, 255, 256, 257, R2, N24

Notes: Consists of the Marine Dr and 3rd/Main corridors, ranked #10 and #36 for person-delay per km in Fall 2021, respectively. Ridership is reported for the location with the most cumulative passengers on-board the bus throughout the day; lower end of the range accounts only for routes using the corridor for at least 1 km and upper end of the range reflects all routes.

43
Maximum hourly bus trips per direction

780
Person-hours of delay per day

18,700
Total households (900/km² density)

29%
Low income households

18%
Zero vehicle households

Demographics within 400m of corridor

4,600-5,600
Total ridership
(daily load in one direction)

62
Bus-hours of delay per day

Corridor Significance

- **Marine Drive is an important connection for passengers moving along the North Shore.** The R2 RapidBus has over 4,000 average weekday boardings. Marine Dr sees a bus approximately every 3 minutes all day. Buses carry a quarter of people travelling on Marine Drive during the morning rush hours, depending on the portion of the corridor.
- **Bus performance on Marine Drive impacts people traveling in the North Shore.** During heavier traffic, an end-to-end trip on the corridor between West Vancouver and North Vancouver can take nearly 14 minutes longer compared to a best-case trip, when the bus is able to move smoothly. Marine Dr ranks sixth highest in terms of bus delay per kilometre.
- **Marine drive is a key link between downtown Vancouver and the North Shore.** People can access the North Shore from downtown via either the Lions Gate Bridge or the Iron Workers Memorial Bridge.
- **Transit priority improvements are planned on Marine Drive.** Two RapidBus routes are planned as part of TransLink's *10-Year Priorities*, including connections to Lynn Valley and Park Royal/Ambleside. Consideration and planning work for BRT is also proposed.

Key Challenges for Bus Speed & Reliability

- Some segments of the profile area are narrow, often with one travel lane where bus and motor vehicles must share the road.
- Connections between the North Shore and the rest of the Metro Vancouver region must consider needs of goods movement and emergency vehicles.
- Areas near commercial and shopping centres with off-street and on-street parking experience delay from vehicles turning into centres or on-street parking movements.

Location of Common Causes of Bus Delay

Issue	Location(s)
Motorists turning left (or other delay from left-turns)	• WB Marine Dr at 21 St • EB Marine Dr at 17 St • EB Marine Dr at 16 St • WB Marine Dr at 15 St • EB Marine Dr at Tatlow Ave • EB Marine Dr at Pemberton Ave • Lonsdale Quay Bay • NB Lonsdale Ave at East Esplanade • NB Lonsdale Ave at 2 St
Motorists turning right (or other delay from right-turns)	• WB Marine Dr at 21 St • EB/WB Marine Dr between 17 St and 14 St • EB Marine Dr at Park Royal • EB/WB Marine Dr between Capilano Rd and Pemberton Ave • WB Marine Dr at 16 St W • EB/WB Marine Dr at Fell Ave • EB West Esplanade from Chesterfield Ave to Rogers Ave • SB Rogers Ave at West Esplanade • SB Lonsdale Ave at West Esplanade • NB Lonsdale Ave at 3 St • EB E 3 St at Moody Ave • WB Cotton Rd at Brooksbank Ave

Issue	Location(s)
Roadway congestion	• EB/WB Marine Dr at 25 St • WB Marine Dr at 21 St • EB/WB Marine Dr between 18 St and 14 St • EB/WB Marine Dr at Park Royal • EB/WB Marine Dr between Capilano Rd and Pemberton Ave • WB Marine Dr at W 16 St • EB/WB Marine Dr between Fell Ave and Bewicke Ave • EB West Esplanade from Chesterfield Ave to Rogers Ave • Lonsdale Quay Bay • NB/SB Lonsdale Ave between West Esplanade and 3 St • EB E 3 St from Moody Av to Harbour Ave
Closely spaced driveways or other roadways	• WB Marine Dr at McGuire Ave • WB Marine Dr at W 16 St
Re-entering traffic from bus stops	• EB Marine Dr from 18 St to 16 St • WB Marine Dr from 22 St to 13 St • WB Marine Dr at Park Royal • EB Marine Dr from Capilano Rd to Tatlow Ave
Location of bus stops	• EB Marine Dr from Fell Ave to Bewicke Ave
Short spacing between bus stops	• WB Marine Dr at Bridgman Ave • WB Marine Dr from 20 St to 22 St
Pedestrian movements (including pedestrian signals)	• EB Marine Dr at 25 St • WB Marine Dr at 21 St • EB Marine Dr from 18 St to 15 St • WB Marine Dr 14 St to 16 St • WB Marine Dr at Bridgman Ave • EB Marine Dr at Pemberton Ave • WB Marine Dr at W 16 St • EB/WB Marine Dr between Fell Ave and Bewicke Ave • EB West Esplanade from Chesterfield Ave to Rogers Ave • NB/SB Lonsdale Ave between West Esplanade and 3 St
Uncoordinated traffic signals	• EB Marine Dr at 25 St • EB Marine Dr from Capilano Rd to Pemberton Ave • WB Marine Dr from Mission Rd to Bewicke Ave • NB Lonsdale Ave at 2 St
Schedules and/or timepoints	• EB Cotton Rd at Brooksbank Ave
HOV or bus-only lane violations	• EB Cotton Rd at Moody Ave

WILLINGDON AVE

Corridor Description

- This key north-south Burnaby corridor connects Burnaby Heights to Metrotown, and includes destinations such as BCIT and Brentwood.
- The corridor also serves routes that connect beween Burnaby and the North Shore.
- The routes on this corridor connect the Expo Line, Millennium Line, and the R5 RapidBus.

Quick Facts

Length	9.4 km
Subregions	Vancouver/UBC, Burnaby/ New Westminster
Primary Routes	130, 222
All Routes*	25, 28, 110, 123, 130, 131, 134, 160, 222

* Does not include Routes 129, 132, 160, R5, N35 which travel on Hastings Street portion only

Notes: Corridor ranked #12 for person-delay per km in Fall 2021. The profile area includes an extension of the Willingdon corridor along Hastings Street and the approach to the Ironworkers Memorial Bridge. Ridership is reported for the location with the most cumulative passengers on-board the bus throughout the day; lower end of the range accounts only for routes using the corridor for at least 1 km and upper end of the range reflects all routes.

52
Maximum hourly bus trips per direction

670
Person-hours of delay per day

15,300
Total households (800/km² density)

37%
Low income households

18%
Zero vehicle households

Demographics within 400m of corridor

4,300-9,500
Total ridership
(daily load in one direction)

54
Bus-hours of delay per day

Corridor Significance

- **Willingdon Ave is a well-utilized transit corridor.** Line 130 has the 2nd highest boardings in Burnaby/New Westminster. Line 25, which runs on Willingdon between Brentwood Town Centre and BCIT, has the 4th highest boardings in the system. Buses carry up to a quarter of people travelling on Willingdon Ave during morning rush hours.
- **Bus performance on Willingdon impacts people traveling in Burnaby.** Willingdon ranks third highest in bus delay per kilometre and fourth highest in person-hours of delay per kilometre among profile areas. During heavier traffic, an end-to-end trip between Metrotown and Burnaby Heights can take nearly 10 minutes longer compared to a best-case trip, when the bus is able to move smoothly.

Key Challenges for Bus Speed & Reliability

- Delays caused by lack of traffic signal coordination, specifically when departing and arriving at Brentwood Station. Additional delays are mostly caused by severe roadway congestion along most of Willingdon Ave.
- Willingdon Ave has an existing transit priority lane/ HOV lane which in some areas can be used for right turns. In addition to turning movements, HOV lane violations and increasing presence of electric vehicles in Bus and HOV 3+ lanes have caused delays on between Canada Way and Brentwood Station at Halifax St.

Location of Common Causes of Bus Delay

Issue	Location(s)
Motorists turning left (or other delay from left-turns)	• NB/SB Willingdon Ave between Central Blvd and Goard Way
Motorists turning right (or other delay from right-turns)	• NB Willingdon Ave at Central Blvd • NB Willingdon Ave at Grafton St • NB Willingdon Ave between Grassmere St and Price St • NB Willingdon Ave at Brentwood Station • NB Willingdon Ave at Hastings St • NB Willingdon Ave at Kootenay Loop • SB Willingdon Ave between William St and Frances St • SB Willingdon Ave between Pender St and Gilmore Ave • SB Willingdon Ave at Ingleton Ave
Roadway congestion	• NB/SB Willingdon Ave between Central Blvd and Grafton St • NB Willingdon Ave between Deer Lake Pkwy and Sanderson Way • NB/SB Willingdon Ave between Brentwood Station and Halifax St • NB Willingdon Ave at Hastings St • NB Willingdon Ave at Kootenay Loop • NB/SB Willingdon Ave between Canada Way and Lougheed Hwy
Closely spaced driveways or other roadways	• NB Willingdon Ave at Gourd Way • NB Willingdon Ave at Halifax St
Re-entering traffic from bus stops	• NB Willingdon Ave at Brentwood Station • SB Willingdon Ave at Hastings St
Short spacing between bus stops	• NB Willingdon Ave between Goard Way and Grafton St • NB Willingdon Ave at Brentwood Station • NB/SB Willingdon Ave at Lougheed Hwy
Pedestrian movements (including pedestrian signals)	• NB Willingdon Ave at Brentwood Station • SB Willingdon Ave at Gilmore Ave
Uncoordinated traffic signals	• NB Willingdon Ave at Georgia St • SB Willingdon Ave at Union St • SB Willingdon Ave between William St and Kitchener St

DOWNTOWN TO IRONWORKERS MEMORIAL BRIDGE

Corridor Description

- This corridor is a critical connection between Downtown Vancouver, the North Shore, and neighbourhoods in East Vancouver.
- It connects the Waterfront in Downtown Vancouver with North Shore destinations such as Capilano University, Lynn Creek, and Deep Cove.
- It also shares corridors with commercial traffic related to Port of Vancouver and Hwy 1 access.

Quick Facts

Length	9.7 km
Subregions	Vancouver/UBC, North Shore
Primary Routes	4, 7, 209, 210, 211, 214
All Routes	3, 4, 5, 7, 8, 19, 22, 28, 130, 209, 210, 211, 214, 222, N8, N15, N19, N22, N24

Notes: Consists of the Pender/Powell/Dundas/McGill and Ironworkers Memorial Bridge corridors, ranked #15 and #48 for person-delay per km in Fall 2021, respectively. Ridership is reported for the location with the most cumulative passengers on-board the bus throughout the day.

57
Maximum hourly bus trips per direction

460
Person-hours of delay per day

20,200
Total households (1,300/km² density)

44%
Low income households

38%
Zero vehicle households

4,900
Total ridership (daily load in one direction)

51
Bus-hours of delay per day

Demographics within 400m of corridor

Corridor Significance

- **Ironworkers Memorial Bridge is a key connection to the North Shore.** The bridge serves routes to the North Shore from downtown Vancouver as well as from Burnaby.
- **The streets connecting buses to the bridge from Downtown Vancouver are highly utilized.** The primary bus routes that use the bridge to connect to the North Shore combine to run every 2 to 3 minutes all-day, not including various other routes that also run on these streets.
- **Social equity need is significant along the corridor.** It ranks first among areas profiled in the share of both low-income households and zero-vehicle households.

Key Challenges for Bus Speed & Reliability

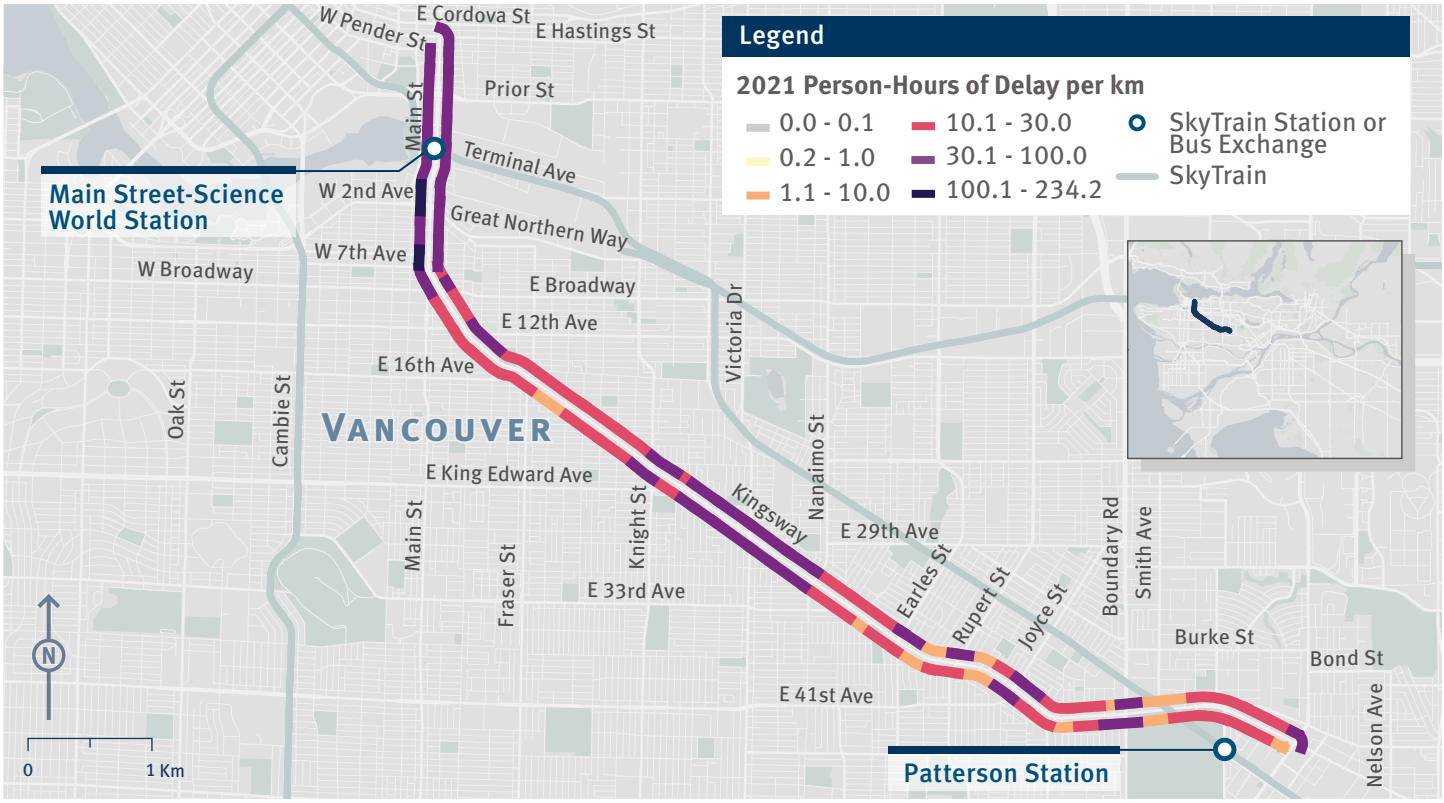
- Congested and constrained roadways that carry heavy vehicle volumes between Downtown Vancouver and North Vancouver.
- Significant turn volumes at major intersections.

Location of Common Causes of Bus Delay

Issue	Location(s)
Motorists turning left (or other delay from left-turns)	• EB/WB Pender St between Granville St and Seymour St • EB Cordova St at Main St • EB Cordova St at Clark Dr • EB Dundas St at Nanaimo St • WB Pender St at Hamilton St • WB Powell St at Gore Ave • WB Dundas St between Victoria Dr and Wall St
Motorists turning right (or other delay from right-turns)	• EB Pender St between Thurlow St and Granville St • EB Pender St at Hastings St • EB/WB Pender St at Seymour St • EB Cordova St at Homer St • EB Cordova St at Main St • WB Pender St at Main St
Roadway congestion	• EB/WB Pender St between Thurlow St and Hastings St • EB Homer St at Pender St • EB Dundas St at Nanaimo St • WB Dundas St between Garden Dr and Commercial Dr
Closely spaced driveways or other roadways	• EB Cordova St between Homer St and Carrall St • EB/WB Powell St at Commercial Dr
Re-entering traffic from bus stops	• EB/WB Cordova St between Homer St and Carrall St • WB Dundas St at Garden Dr • WB Powell St at Commercial Dr • WB Pender St at Hamilton St
Location of bus stops	• EB Cordova St at Main St
Short spacing between bus stops	• EB Cordova St between Carrall St and Dunlevy Ave • WB Pender St at Main St • WB Pender St at Hamilton St

Issue	Location(s)
Pedestrian movements (including pedestrian signals)	• EB/WB Pender St at Thurlow St • EB/WB Pender St at Granville St • EB/WB Pender St between Seymour St and Hastings St • EB Cordova St between Homer St and Main St • EB McGill St at Renfrew St • WB Pender St at Main St • WB Pender St between Hamilton St and Seymour St
Uncoordinated traffic signals	• EB Pender St between Thurlow St and Seymour St • EB Cordova St between Homer St and Main St • WB Dundas Street between Garden Dr and Templeton Dr
HOV or bus-only lane violations	• EB Pender St between Thurlow St and Granville St
Overhead trolley wire-related delays/conflicts	• EB/WB Pender St at Hastings St • WB Pender St at Howe St • WB Pender St at Burrard St
Bus/bicycle interactions	• EB Pender St at Seymour St • WB Pender St at Abbott St • WB Pender St between Hamilton St and Granville St

MAIN ST / KINGSWAY



Corridor Description

- The Kingsway / Main Street corridor is a major connection between Southwest Burnaby and Downtown Vancouver/Chinatown.
- The neighbourhoods surrounding Kingsway feature shopping and dining destinations.
- The corridor connects passengers travelling along Kingsway with the Expo Line, serving Main Street-Science World Station.
- Many trolley routes converge north of Broadway.

Quick Facts

Length	10.2 km
Subregions	Vancouver/UBC, Burnaby/ New Westminster
Primary Routes	19, N19
All Routes	3, 8, 19, 22, 25, 26, N8, N19

Notes: Consists of the Main St and Kingsway corridors, ranked #16 and #18 for person-delay per km in Fall 2021, respectively. Ridership is reported for the location with the most cumulative passengers on-board the bus throughout the day.

21
Maximum hourly bus trips per direction

680
Person-hours of delay per day

35,400
Total households (1,900/km² density)

37%
Low income households

27%
Zero vehicle households

4,200
Total ridership
(daily load in one direction)

48
Bus-hours of delay per day

Demographics within 400m of corridor

Corridor Significance

- **Main St and Kingsway are significant transit streets.** Route 19, the primary route serving both of the streets profiled, arrives roughly every 7 minutes all day. Buses arrive every 2 to 3 minutes along Main St. Approximately 6% of bus journeys in Vancouver/UBC begin on Main St/Kingsway.
- **Variability along Main and Kingsway is second highest among areas profiled.** During heavier traffic, an end-to-end bus trip along this corridor can take over 15 minutes longer compared to a best-case trip, when the bus is able to move smoothly.
- **Buses serve an important mobility need on Main St and Kingsway.** A quarter to a third of people traveling on these streets are on buses in the morning rush hours. The area profiled ranks fifth for the share of zero-vehicle households.

Key Challenges for Bus Speed & Reliability

- Active business districts with high levels of pedestrian activity and on-street parking.
- Many intersections lack left-turn pockets for vehicles turning left, affecting autos and buses; on Main St, some SB left-turns are restricted in the PM peak. SB buses must cross two travel lanes to turn left from Main St onto Kingsway.
- Where there is on-street parking, buses must merge back into traffic from bus stops when bus-only lanes are not in effect.
- Varying bus lane hours may affect compliance. Lanes are in effect between 7 am – 7 pm on Main St (all days) and in the peak direction on Kingsway (SB 3-6 pm, NB 7-9:30 am weekdays). Operators have reported unauthorized vehicles in bus lanes.
- Trolley buses are unable to pass each other at bus stops without passing wire.

Location of Common Causes of Bus Delay

Issue	Location(s)
Motorists turning left (or other delay from left-turns)	• NB Main St at Hastings • NB Main St at Pender • SB Main St at Kingsway
Motorists turning right	• NB/SB Kingsway at Boundary Rd • NB/SB Kingsway at Joyce St • NB/SB Kingsway at Rupert St • NB/SB Kingsway at Earles St • NB/SB Kingsway at Victoria Dr • NB/SB Kingsway at Knight St • NB/SB Kingsway at 12 Ave • NB/SB Kingsway at Broadway • NB Main at Terminal Ave
Roadway congestion	• NB Kingsway at Willingdon Ave • NB/SB Kingsway between Earles St and Knight St • SB Kingsway at Fraser St • NB Kingsway between St. George and Broadway • SB Kingsway between Main St and 12 Ave • NB Main St between 2 Ave and Terminal Ave • SB Main St between Switchmen St and 2 Ave • NB/SB Main St between Georgia St and Hastings St

Issue	Location(s)
Re-entering traffic from bus stops	• NB/SB Kingsway between Willingdon Ave and Main St • NB/SB Main St between Kingsway and Hastings
Short spacing between bus stops	• NB Kingsway at Boundary St and Rupert St • SB Main St from E 5 Ave and E 2 Ave
Pedestrian movements (including pedestrian signals)	• NB/SB Kingsway at Willingdon Ave • NB/SB Kingsway at Boundary Rd • NB/SB Kingsway at Joyce St • NB/SB Kingsway at Victoria Dr • NB/SB Kingsway at Knight St • NB/SB Kingsway at Fraser St • NB/SB Kingsway between 12 St and Broadway • NB/SB Main St between 2 Ave and Terminal Ave • NB/SB Main St between Georgia St and Hastings St
Uncoordinated traffic signals	• NB/SB Kingsway at Boundary St, Gladstone St, and Broadway
HOV or bus-only lane violations	• NB/SB Main St between Terminal Ave and Kingsway • NB/SB Kingsway between Main St and Fraser St
Overhead trolley wire-related delays/conflicts	• NB/SB Main St between Kingsway and Hastings St • NB/SB Kingsway at Willingdon Ave and Joyce St

WEST 4TH AVE

Corridor Description

- West 4th Ave connects Dunbar, Kitsilano, and West Point Grey with Downtown, and UBC.
- The corridor provides transit connections to the Canada and Millennium Lines, serving Olympic Village and VCC-Clark stations.
- The surrounding areas feature destinations for shopping and enjoying the waterfront.

Quick Facts

Length	10.2 km
Subregion	Vancouver/UBC
Primary Routes	84; 4, 44
All Routes	4, 7, 14, 44, 50, 84

Notes: Corridor ranked #17 for person-delay per km in Fall 2021. Profile area does not extend as far to the west as the corridor and includes an extension to VCC-Clark Station on the east. Ridership is reported for the location with the most cumulative passengers on-board the bus throughout the day; lower end of the range accounts only for routes using the corridor for at least 1 km and upper end of the range reflects all routes. Analysis was completed using data from 2021, before bus priority improvements were implemented along W 4th Ave. See case study for further detail.

33
Maximum hourly bus trips per direction

560
Person-hours of delay per day

34,700
Total households (2,600/km² density)

36%
Low income households

35%
Zero vehicle households

5,800-6,000
Total ridership
(daily load in one direction)

38
Bus-hours of delay per day

Demographics within 400m of corridor

Corridor Significance

- **West 4th Ave serves a high density of people living in Vancouver.** West 4th Ave ranks third in total household density and second in the share of zero-vehicle households among profile areas.
- **Buses serve an important mobility need on West 4th Ave.** Up to 60% of people traveling along the corridor in the morning rush hours are on buses. The primary routes serving the corridor arrive every 3 minutes or more often all day.
- **Performance on West 4th Ave impacts people traveling by bus throughout Vancouver.** During heavier traffic, an end-to-end trip between VCC and UBC can take nearly 10 minutes longer compared to a best-case trip, when the bus is able to move smoothly.

Key Challenges for Bus Speed & Reliability

- Extensive commercial areas featuring on-street parking, higher density of traffic signals, and high pedestrian activity.
- Buses experience delay waiting for motorists to turn left or right and from re-entering traffic after pulling over to bus stops.

Location of Common Causes of Bus Delay

Issue	Location(s)
Motorists turning left (or other delay from left-turns)	• WB W 4 Ave at Alma St • EB/WB W 4 Ave at Macdonald St • WB W 4 Ave at Arbutus St • EB/WB W 4 Ave between Balsam St and Cypress St
Motorists turning right (or other delay from right-turns)	• EB W 4 St at Alma St • EB/WB W 4 Ave between Balsam St and Burrard St • WB W 4 Ave at Arbutus St • EB W 6 Ave from Oak St to Cambie St • WB W 6 Ave at Cambie St • EB 2 Ave from Quebec St to Main St
Roadway congestion	• EB/WB W 4 Ave between Larch St and Granville St • EB W 6 Ave from Alder St to Cambie St • WB 2 Ave from Main St to Cambie St • EB 2 Ave from Quebec to Main St
Re-entering traffic from bus stops	• WB W 4 Ave from Alma St to Dunbar St • WB W 4 Ave at Balaclava St • EB W 4 Ave at Bayswater St • EB/WB W 4 Ave between Macdonald St and Trafalgar St • EB W 4 Ave from Fir St to Granville St • WB 2 Ave at Cambie St • EB/WB 2 Ave between Ontario St and Main St
Location of bus stops	• EB W 4 Ave from Alma St to Collingwood St • EB W 6 Ave from Heather St to Cambie St
Pedestrian movements (including pedestrian signals)	• EB W 4 Ave at Alma St • EB/WB W 4 Ave between Balsam St and Burrard St • EB W 6 Ave from Alder St to Cambie St • WB 2 Ave at Cambie St • EB 2 Ave from Quebec St to Main St

NO 3 RD

Corridor Description

- No 3 Rd is the key north-south corridor in Richmond and connects Richmond city centre to commercial areas, neighbourhoods, and cultural and religious destinations, including Richmond City Hall and Kwantlen Polytechnic University.
- Buses on this corridor provide connections between several Canada Line stations, including Bridgeport, Aberdeen, Lansdowne, and and Richmond-Brighouse stations.
- The corridor extends south of the Canada Line serving destinations including Steveston Harbour and the Riverton Recreation Complex.

Quick Facts

Length	7.0 km
Subregion	Southwest
Primary Routes	403
All Routes	402, 403, 404, 405, 406, 407, 410, 414, 416, 430, N10

Notes: Corridor ranked #22 for person-delay per km in Fall 2021. Profile area extends onto Bridgeport Rd. Ridership is reported for the location with the most cumulative passengers on-board the bus throughout the day; lower end of the range accounts only for routes using the corridor for at least 1 km and upper end of the range reflects all routes.

49
Maximum hourly bus trips per direction

340
Person-hours of delay per day

11,900
Total households (600/km² density)

38%
Low income households

13%
Zero vehicle households

Demographics within 400m of corridor

4,800-6,000
Total ridership
(daily load in one direction)

34
Bus-hours of delay per day

Corridor Significance

- **No 3 Rd is a major transit corridor.** During weekday peak hours, buses arrive every 3 minutes or more often. No 3 Rd ranks fifth in bus delay per kilometre.
- **Buses serve an important mobility need on No 3 Rd.** Over a third of all bus journeys in Southwest begin on this corridor. Over 40% of people traveling through the central part of the corridor are on buses in the morning rush hours, and over 20% on the southern end. The density of low-income households is 4th highest among profile areas.
- P**erformance on No 3 Rd impacts people traveling by bus through Richmond.** During heavier traffic, an end-to-end trip between Steveston Hwy and Bridgeport Station can take nearly 10 minutes longer compared to a best-case trip, when the bus is able to move smoothly. Relative to the average travel time, variability on No 3 Rd is the highest among profile areas.

Key Challenges for Bus Speed & Reliability

- No 3 Rd is characterized by significant commercial areas between Bridgeport Rd and Granville Ave.
- There is significant pedestrian activity at segments near Aberdeen, Lansdowne, and Richmond-Brighouse Stations on the Canada Line.
- Eventual addition of a Canada Line station at Capstan Way could place additional pressure on curbside management and traffic signal timing.

Location of Common Causes of Bus Delay

Issue	Location(s)
Motorists turning left (or other delay from left-turns)	• NB No 3 Rd at Blundell Rd • NB Great Canadian Way at Bridgeport Rd • EB Steveston Hwy at No 3 Rd
Motorists turning right (or other delay from right-turns)	• NB/SB No 3 Rd between Granville Ave and Capstan Way • SB No 3 Rd at Blundell Rd • SB No 3 Rd at Francis Rd
Roadway congestion	• NB No 3 Rd at Capstan Way • SB No 3 Rd from Capstan Way to Browngate Rd • NB/SB No 3 Rd between Lansdowne Rd and Alderbridge Way • SB No 3 Rd from Lansdowne Rd to Saba Rd • NB/SB No 3 Rd at Richmond-Brighouse Station especially from Park Rd to Saba Rd • NB/SB No 3 Rd at Blundell Rd • NB No 3 Rd at Francis Rd
Closely spaced driveways or other roadways	• NB No 3 Rd from Leslie Rd to Aberdeen Station • NB No 3 Rd from Ackroyd Rd to Lansdowne Station • NB No 3 Rd at Richmond-Brighouse Station • SB No 3 Rd from Cook Rd to Park Rd
Re-entering traffic from bus stops	• SB No 3 Rd from Cook Rd to Anderson Rd
Short spacing between bus stops	• SB No 3 Rd from Park Rd to Anderson Rd

Issue	Location(s)
Pedestrian movements (including pedestrian signals)	• NB No 3 Rd from Cook Rd to Saba Rd at Richmond-Brighouse Station • SB No 3 Rd from Lansdowne Rd to Saba Rd between Lansdowne Station and Richmond-Brighouse Station • SB No 3 Rd from Cook Rd to Granville Ave • EB Steveston Hwy at No 3 Rd
Uncoordinated traffic signals	• NB Great Canadian Way at Bridgeport Rd
Pedestrian access and/or safety	• SB No 3 Rd at Anderson Rd
Bus/bicycle interactions	• Throughout the profile area where bus lanes are unprotected and adjacent to bus stops, especially NB from Cook Rd to Capstan Way and SB from Alderbridge Way to Cook Rd

LONSDALE AVE

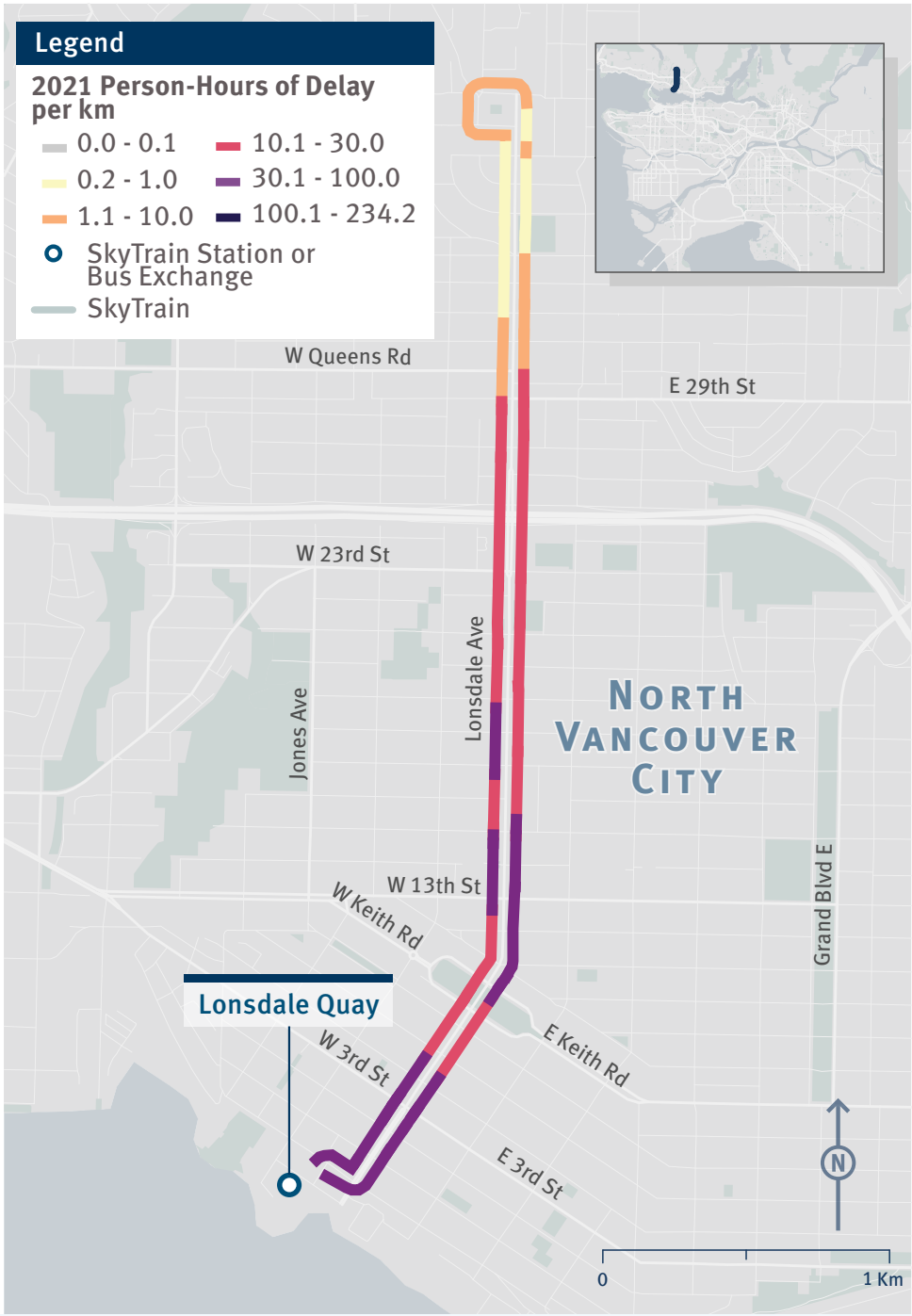
Corridor Description

- Lonsdale Ave is a major and historic north-south transit and commercial corridor for the city of North Vancouver.
- Lonsdale Ave is located in the urban core of the North Shore and has significant commercial and institutional destinations including Lonsdale Quay and The Shipyards.
- Bus service along the corridor provides connections from Lonsdale Quay (SeaBus and bus exchange) at the foot of Lonsdale to the rest of the City and the District of North Vancouver, including commercial centres and important regional cultural and recreation destinations.

Quick Facts

Length	4.2 km
Subregion	North Shore
Primary Routes	230; 228, N24
All Routes	228, 229, 230, 232, 241, 255, R2, N24

Notes: Corridor ranked #24 for person-delay per km in Fall 2021. Profile area varies slightly from the corridor. Ridership is reported for the location with the most cumulative passengers on-board the bus throughout the day; lower end of the range accounts only for routes using the corridor for at least 1 km and upper end of the range reflects all routes.



20
Maximum hourly bus trips per direction

180
Person-hours of delay per day

14,200
Total households (1,500/km² density)

29%
Low income households

21%
Zero vehicle households

Demographics within 400m of corridor

2,300-2,700
Total ridership
(daily load in one direction)

18
Bus-hours of delay per day

Corridor Significance

- **Lonsdale Ave is an important travel corridor connecting to the urban core in the North Shore, with significant commercial and institutional destinations.** More than 7% of all bus journeys in North Shore begin on Lonsdale Ave. It ranks eighth highest in bus delay per kilometre among profile areas. In the southern end of the corridor, buses carry up to 60% of people during morning rush hours. Approximately 10 to 20% of people using the northern part of the corridor are on buses during that time.

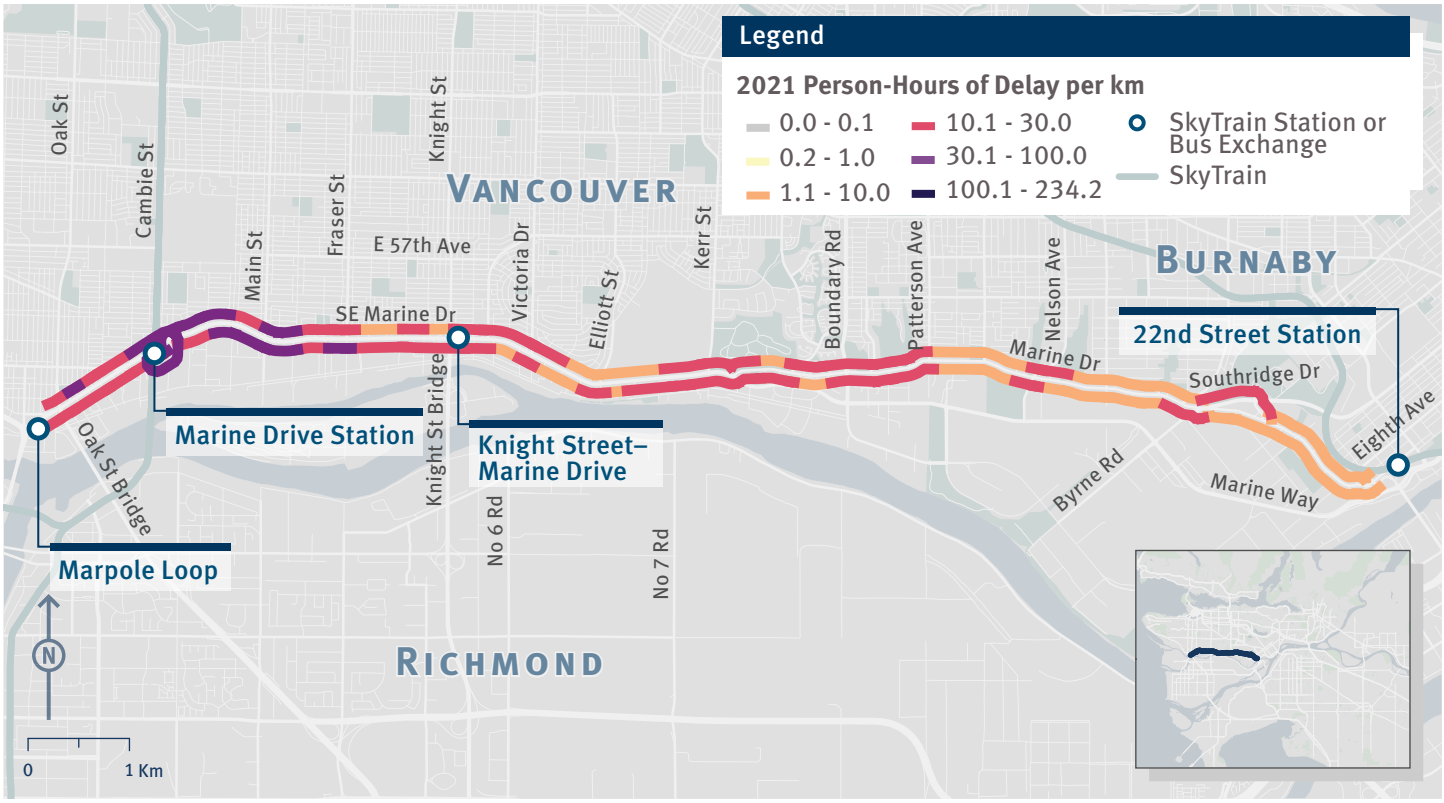
Key Challenges for Bus Speed & Reliability

- Lonsdale has parallel parking with high turnover of vehicles (e.g., daytime duration limits of 1 hour). This contributes to delay in the curb lane as general traffic waits for people parking.
- Significantly poor travel times for buses converging to and from Hwy 1 connections.
- Traffic signal phasing must consider bus priority, reducing delay for turn movements, and high pedestrian volumes; Lonsdale Ave is also an important corridor for goods movement and emergency vehicles.

Location of Common Causes of Bus Delay

Issue	Location(s)
Motorists turning left (or other delay from left-turns)	• NB Lonsdale Ave at Esplanade • NB Lonsdale Ave at 2 St • NB Lonsdale Ave at 4 St • NB Lonsdale Ave from 11 St to 13 St • SB Lonsdale Ave from 14 St to 13 St • SB Lonsdale Ave from 18 St to 17 St • NB Lonsdale Ave from 20 St to 21 St • SB Lonsdale at 27 St • NB/SB Lonsdale Ave between Queens Rd and Kings Rd
Motorists turning right (or other delay from right-turns)	• NB/SB Lonsdale Ave between 2 St to 4 St • SB Lonsdale Ave from Hwy 1 to 11 St • NB Lonsdale Ave from 11 St to 13 St • NB Lonsdale Ave at 15 St • NB Lonsdale Ave from 18 St to 21 St • NB Lonsdale at 29 St • SB Lonsdale at Queens Rd
Roadway congestion	• NB Lonsdale Ave from Esplanade to Kings Rd • SB Lonsdale Ave from Kings Rd to 13 St • SB Lonsdale Ave from 4 St to Esplanade
Closely spaced driveways or other roadways	• SB Lonsdale Ave from 14 St to 13 St
Re-entering traffic from bus stops	• NB/SB Lonsdale Ave at 13 St • NB Lonsdale Ave at 17 St • NB Lonsdale Ave at 29 St
Location of bus stops	• NB Lonsdale at Hwy 1
Short spacing between bus stops	• NB Lonsdale Ave at 2 St
Pedestrian movements (including pedestrian signals)	• NB/SB Lonsdale Ave between Esplanade and 4 St • NB Lonsdale Ave from 11 St to 13 St • NB Lonsdale Ave at 15 St • SB Lonsdale Ave from 18 St to 13 St • NB Lonsdale Ave from 20 St to 21 St • SB Lonsdale Ave at 22 St • SB Lonsdale Ave from Kings Rd to Queens Rd
Uncoordinated traffic signals	• NB Lonsdale Ave at Esplanade

SE MARINE DR



Corridor Description

- SE Marine Dr is a key east-west corridor through neighbourhoods in south Vancouver and south Burnaby.
- This corridor connects the Marine Drive Station on the Canada Line and the 22nd Street Station on the Expo Line.
- The corridor includes residential areas and smaller-scale commercial and light industrial land uses.

Quick Facts

Length	14.3 km
Subregions	Vancouver/UBC, Burnaby/ New Westminster
Primary Route	100
All Routes	3, 10, 17, 31, 100, 116, 146, 148, N8, N20

Notes: Corridor ranked #26 for person-delay per km in Fall 2021. Profile area extends further west and east than the corridor. Ridership is reported for the location with the most cumulative passengers on-board the bus throughout the day; lower end of the range accounts only for routes using the corridor for at least 1 km and upper end of the range reflects all routes.

46
Maximum hourly bus trips per direction

480
Person-hours of delay per day

15,700
Total households (600/km² density)

33%
Low income households

13%
Zero vehicle households

Demographics within 400m of corridor

5,000-5,400
Total ridership
(daily load in one direction)

39
Bus-hours of delay per day

Corridor Significance

- **SE Marine Dr is an important east-west transit corridor for the Vancouver/UBC and Burnaby/New Westminster subregions.** Up to a quarter of people traveling through the corridor are on buses during morning rush hours, and close to three-quarters on the far eastern end near 22nd St Station. Route 100, which serves the length of SE Marine Dr, arrives every 5 to 6 minutes all day.
- **Performance on SE Marine Dr makes bus travel through south Vancouver and Burnaby less reliable.** During heavier traffic, an end-to-end trip between the Marine Drive and 22nd Street stations can take over 10 minutes longer compared to a best-case trip, when the bus is able to move smoothly.
- **Transit priority improvements are planned on SE Marine Dr.** A RapidBus route is planned for the SE Marine Dr corridor in TransLink's *10-Year Priorities*. This route would provide an east-west connection between the Canada Line and the Expo Line. Consideration of and planning work for BRT are also proposed.

Key Challenges for Bus Speed & Reliability

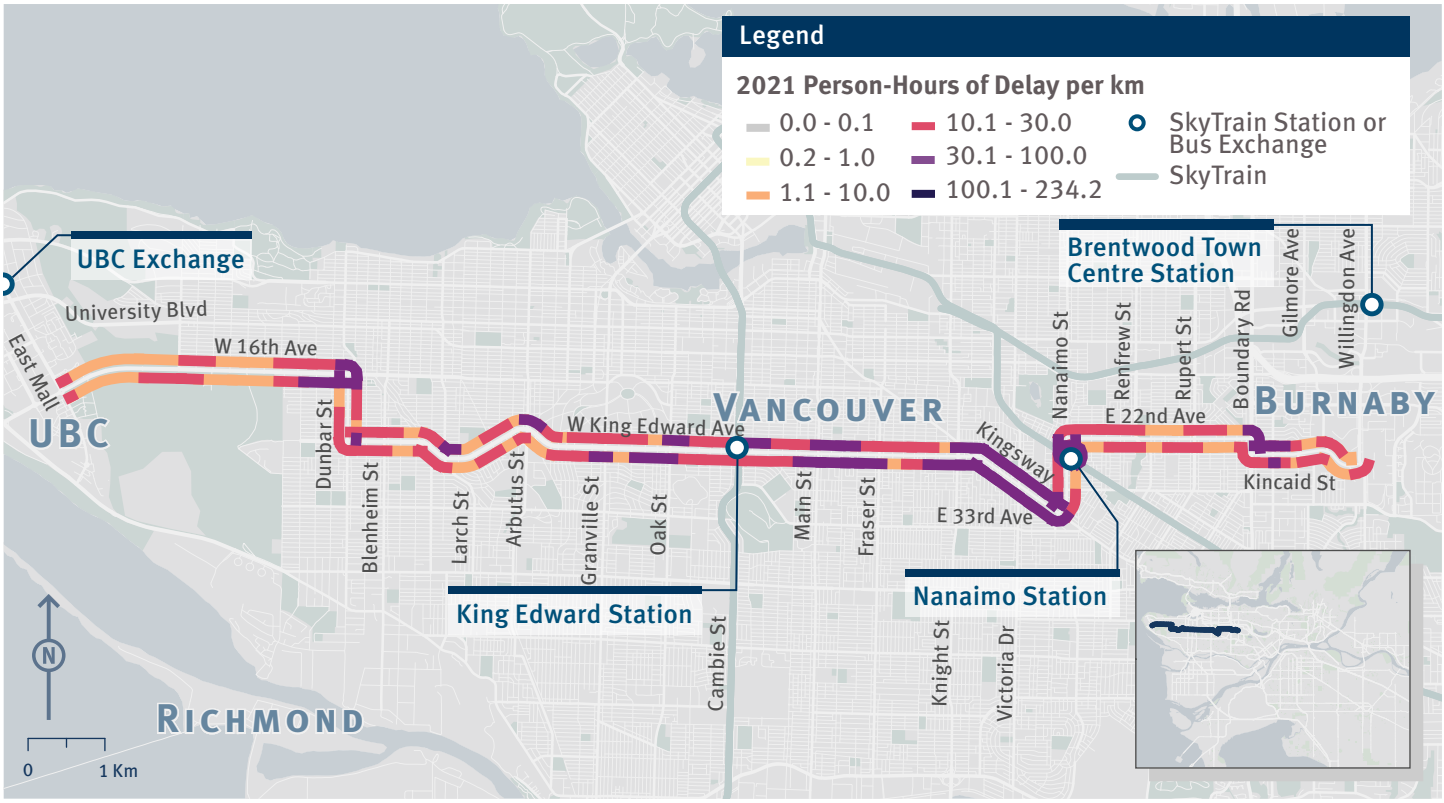
- Severe delays on the western part of the profile area due to roadway congestion and motorists accessing shopping centers and businesses on Marine Drive between Manitoba Street and Ross Street.
- The corridor has existing transit priority lanes but only during PM Peak travel times; the lanes are shared with bikes.

Location of Common Causes of Bus Delay

Issue	Location(s)
Motorists turning left (or other delay from left-turns)	• EB SE Marine Dr at Victoria Dr • EB Marine Dr at Strathearn Ave • WB SW Marine Dr at Columbia St • WB SW Marine Dr at Ash St
Motorists turning right (or other delay from right-turns)	• EB SW Marine Dr at Oak St • EB/WB SW Marine Dr between Manitoba St and Ontario St • EB SE Marine Dr at Victoria Dr • EB Marine Dr at Strathearn Avenue • WB SE Marine Dr at Kerr St • WB SE Marine Dr at Main St
Roadway congestion	• EB/WB SW Marine Dr at W 70 Ave • EB/WB SW Marine Dr between Manitoba St and Ross St • EB SE Marine Dr at Victoria Dr • EB SE Marine Dr at City Edge Pl • EB Marine Dr at Strathearn Avenue • WB Southbridge Dr at Byrnepark Dr • WB Marine Dr at Greenall Ave • WB Marine Dr between Fieldstone Ave and Kerr St • WB SW Marine Dr between Ash St and Oak St
Closely spaced driveways or other roadways	• EB SW Marine Dr between Heather St and W 70 Ave • EB SE Marine Dr between Manitoba St and Argyle St • EB Marine Dr between Greenall Ave and Sussex Ave • EB/WB Marine Dr between Strathearn Ave and Nelson Ave • WB SE Marine Dr at Victoria St • WB SE Marine Dr at Ross St • WB SE Marine Dr at Prince Edward St • WB SE Marine Dr between Main St and Ontario St • WB SW Marine Dr between Logan St and Oak St

Issue	Location(s)
Re-entering traffic from bus stops	• EB SE Marine Dr at Main St • EB SE Marine Dr at Saint George St • EB SE Marine Dr at Fraser St • EB SE Marine Dr at City Edge Pl • WB Marine Dr at Patterson Ave • WB SE Marine Dr at Fieldstone Ave • WB SE marine Dr at Prince Edward St • WB SE Marine Dr between Main St and Ontario St
Location of bus stops	• EB SW Marine Dr at Oak St
Short spacing between bus stops	• EB SE Marine Dr at Beatrice St
Pedestrian movements (including pedestrian signals)	• EB SW Marine Dr at W 70 Ave • EB SE Marine Dr at Kerr St • EB/WB SE Marine Dr at City Edge Pl • WB Marine Dr at Greenall Ave • WB SE Marine Dr at Fieldstone Ave
Uncoordinated traffic signals	• EB SW Marine Dr at W 70 Ave • WB Marine Dr between Trapp Rd and 7 Ave • WB Southridge Dr at Byrnepark Dr • WB SE Marine Dr at Fieldstone Ave • WB SW Marine Dr at W 70 Ave • WB SW Marine Dr at Columbia St • WB SW Marine Dr at Ash St
Overhead trolley wire-related delays/conflicts	• EB SW Marine Dr at W 70 Ave
Pedestrian access and/or safety	• EB SW Marine Dr at W 70 Ave • WB Marine Dr at 10 Ave • WB SE Marine Dr at City Edge Pl • WB SW Marine St at Laurel St
Bus/bicycle interactions	• EB SE Marine Dr between Manitoba St and Ontario St • WB SE Marine St at Ross St

KING EDWARD



Corridor Description

- King Edward is a key east-west corridor connecting Burnaby and UBC.
- The corridor connects the Canada and Expo lines, serving the King Edward and Nanaimo stations. A key route along the corridor (25) also serves Brentwood Town Centre Station.
- Key destinations in the surrounding areas include Amazing Brentwood, BCIT, Burnaby Hospital, and UBC.

Quick Facts

Length	19.6 km
Subregions	Vancouver/UBC, Burnaby/ New Westminster
Primary Route	25
All Routes	7, 25, 33

Notes: Corridor ranked #27 for person-delay per km in Fall 2021. Profile area includes an extension to UBC and also extends further east to Willingdon Ave. Ridership is reported for the location with the most cumulative passengers on-board the bus throughout the day; lower end of the range accounts only for routes using the corridor for at least 1 km and upper end of the range reflects all routes.

20
Maximum hourly bus trips per direction

860
Person-hours of delay per day

26,800
Total households (800/km² density)

34%
Low income households

14%
Zero vehicle households

Demographics within 400m of corridor

3,800-4,200
Total ridership
(daily load in one direction)

50
Bus-hours of delay per day

Corridor Significance

- **King Edward is served by TransLink's 4th busiest bus route.** Route 25 has 17,500 daily weekday boardings and is the primary route on King Edward. It runs every 4 to 5 minutes all-day.
- **Performance impacts a key east-west bus corridor through Burnaby and Vancouver.** There are no other near-by alternative transit routes for east-west travel through this part of the region. Over a quarter of people using this corridor are traveling by bus. A typical end-to-end trip on King Edward between Willingdon and UBC can vary by over 17 minutes, 2nd highest among profile areas.

Key Challenges for Bus Speed & Reliability

- King Edward is a lengthy corridor with multiple turns on and off heavily used streets prone to congestion.
- There is heavy demand for left and right turns at major and minor intersections. Most major intersections have turn lanes, but minor sections do not. Uncoordinated signals and congestion along parts of the corridor result in lengthy delays at intersections.
- The corridor includes a mix of residential and commercial on-street parking. Buses experience delay from exiting and re-entering the travel lane while navigating on-street parking.
- Parking restrictions along the corridor are not consistent and conflict with peak periods of travel, adding to delays along the corridor in addition to safety concerns.

Location of Common Causes of Bus Delay

Issue	Location(s)
Motorists turning left (or other delay from left-turns)	• EB 16 Ave at Alma (contributing to EB delays approaching Dunbar St) • EB/WB 16 Ave at Dunbar St • EB King Edward Ave at Dunbar St • WB Kingsway at King Edward Ave • NB Nanaimo St at Kingsway • EB 22 Ave at Rupert St • EB 22 Ave at Boundary Rd • WB Kincaid St at Boundary Rd • WB Kincaid St at Gilmore Way
Motorists turning right (or other delay from right-turns)	• SB/NB Dunbar St at 16 Ave • EB/WB King Edward Ave at Arbutus St • EB King Edward Ave at Granville St • EB/WB King Edward Ave at Oak St • WB King Edward Ave at Cambie St • EB/WB King Edward Ave at Main St • EB King Edward Ave at Fraser St • EB/WB King Edward Ave at Knight St • EB/WB Kingsway at Victoria Dr • EB/WB 22 Ave at Rupert St • EB 22 Ave at Boundary Rd • WB Kincaid St at Boundary Rd • WB Kincaid St at Gilmore Way

Issue	Location(s)
Roadway congestion	• EB/WB 16 Ave at Dunbar St • WB King Edward Ave at Macdonald St • EB/WB King Edward Ave at Arbutus St • EB King Edward Ave from Cypress St to Granville St • EB King Edward Ave from Hudson St to Oak St • WB King Edward Ave at Oak St • WB King Edward Ave at Cambie St • EB King Edward Ave from Ontario St to Fraser St • WB King Edward Ave at Main St • EB/WB between King Edward Ave at Inverness St and Kingsway at Nanaimo St • SB Nanaimo St at Nanaimo Station • EB/WB 22 Ave at Rupert St • EB 22 Ave at Boundary Rd • WB Kincaid St at Boundary Rd • WB Kincaid St at Gilmore Way
Re-entering traffic from bus stops	• EB/WB 16 Ave at Dunbar St • WB King Edward Ave at Macdonald St • WB King Edward Ave at Arbutus St • EB King Edward Ave at Oak St • WB King Edward Ave at Cambie St • EB/WB King Edward Ave at Main St • EB/WB between King Edward Ave at Inverness St and Kingsway at Nanaimo St • SB Nanaimo St at Nanaimo Station • WB 22 Ave at Rupert St
Location of bus stops	• EB King Edward Ave at Arbutus St
Short spacing between bus stops	• EB/WB King Edward Ave at Arbutus St • Note: A bus stop consolidation project was already completed on Route 25
Pedestrian movements (including pedestrian signals)	• EB/WB 16 Ave at Dunbar St • WB King Edward Ave at Macdonald St • EB/WB King Edward Ave at Arbutus St • WB King Edward Ave at Granville St • EB/WB King Edward Ave at Oak St • WB King Edward Ave at Cambie St/King Edward Station • EB/WB King Edward Ave at Main St • EB/WB King Edward Ave at Knight St • EB/WB Kingsway at Victoria Dr • EB/WB Kingsway at Nanaimo St • EB/WB 22 Ave at Rupert St • EB 22 Ave at Boundary Rd • WB Kincaid St at Boundary Rd
Uncoordinated traffic signals	• EB 16 Ave at Alma St • EB 16 Ave at Dunbar St • EB King Edward Ave at Granville St • EB/WB King Edward Ave at Oak St • EB King Edward Ave at Main St • EB/WB King Edward Ave at Knight St • EB Kingsway at Victoria Dr • NB/SB Kingsway at Nanaimo St • SB Nanaimo St at Nanaimo Station • WB 22 Ave at Rupert St • EB 22 Ave at Boundary Rd • WB Kincaid St at Boundary Rd
Bus/bicycle interactions	• WB King Edward Ave at Trafalgar St • EB/WB King Edward Ave at Arbutus St • EB King Edward Ave at Cypress St

QUEENSBOROUGH BRIDGE / HWY 91A

Corridor Description

- Queensborough Bridge connects the New Westminster neighbourhood of Queensborough (located on Lulu Island) with the main portion of New Westminster across the Fraser River.
- The bridge provides important connections between Burnaby / New Westminster and Richmond via the the East-West Connector and Delta/Surrey via the Alex Fraser Bridge.
- Services access the Queensborough Bridge from Eighth and Sixth Avenues in New Westminster and from Ewen Avenue in Queensborough.
- The bridge provides access to the 22nd Street station on the Expo Line for Annacis Island, Queensborough, and Hamilton.

Quick Facts

Length	4.5 km
Subregion	Burnaby/New Westminster
Primary Routes	104, 340, 388, 410, 418
All Routes	100, 101, 104, 128, 155, 340, 388, 410, 418

Notes: Corridor ranked #32 for person-delay per km in Fall 2021. Profile area is slightly different from the corridor. Ridership is reported for the location with the most cumulative passengers on-board the bus throughout the day; lower end of the range accounts only for routes using the corridor for at least 1 km and upper end of the range reflects all routes.

69
Maximum hourly bus trips per direction

190
Person-hours of delay per day

2,400
Total households (300/km² density)

29%
Low income households

8%
Zero vehicle households

Demographics within 400m of corridor

9,700-13,500
Total ridership
(daily load in one direction)

12
Bus-hours of delay per day

Corridor Significance

- **The Queensborough Bridge provides an important connection between New Westminster, Richmond, Surrey, and Langley.** During weekday peak hours, Queensborough Bridge carries a bus every 2 minutes.

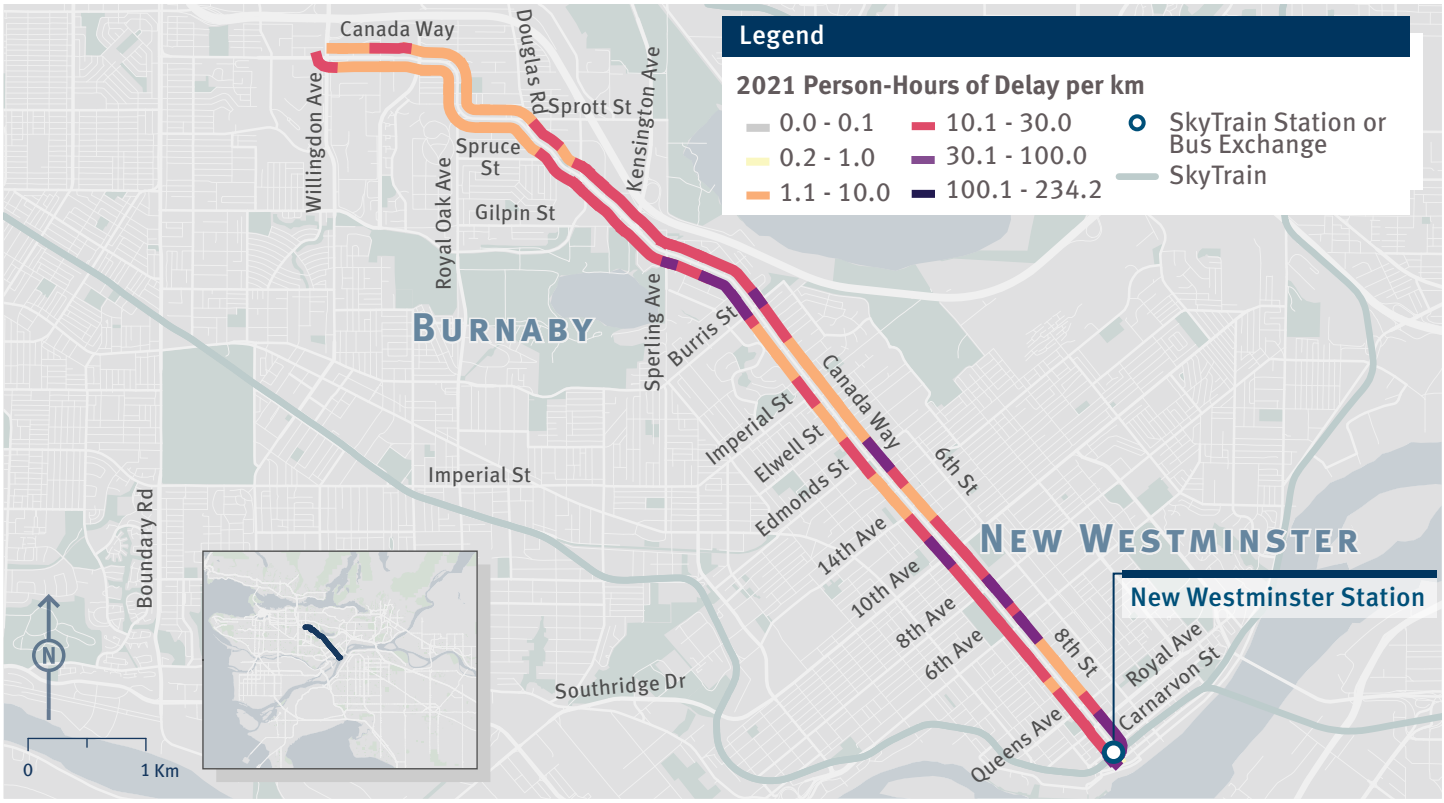
Key Challenges for Bus Speed & Reliability

- Major delays due to high volume of vehicles accessing different major roadways during peak periods such as the Queensborough Bridge and Stewardson Way. Most of the delays are caused by congestion at the Highway 91A on and off ramps. In addition to accessing the highway, stop locations near the highway entrance cause significant delays when re-entering traffic after serving the bus stop.
- Additional delays are caused by right turn movements along 8 Avenue where intersections are not signalized.

Location of Common Causes of Bus Delay

Issue	Location(s)
Motorists turning left (or other delay from left-turns)	• NB 6 Ave at 18 St • NB 8 Ave at 21 St • NB/SB Howes St at Ewen Ave • SB 8 Ave at 20 St
Motorists turning right (or other delay from right-turns)	• NB Hwy 91A at Howes St • NB 8 Ave between 21 and 22 St • NB 8 Ave at 18 St • SB 8 Ave between 19 St and 20 St • SB Howes St at Ewen Ave
Roadway congestion	• NB/SB Hwy 91A at Howes St • NB/SB Howes St at Ewen Ave • NB/SB 8 Ave at 20 St
Re-entering traffic from bus stops	• NB Howes St at Ewen Ave • NB/SB Hwy 91A at Howes St • NB 8 Ave at 20 St • SB 8 Ave between 18 St and 20 St
Short spacing between bus stops	• NB Howes St at Ewen Ave
Pedestrian movements (including pedestrian signals)	• NB 6 Ave at 18 St • NB/SB 8 Ave at 20 St • NB 8 Ave at 18 St • SB 8 Ave at 22 St • SB Ewen Ave at Howes St
Uncoordinated traffic signals	• NB Hwy 91A at Howes St
HOV or bus-only lane violations	• NB 8 Ave at 19 St • SB 8 Ave at 20 St
Pedestrian access and/or safety	• NB 22nd Street Station
Bus/bicycle interactions	• NB 22nd Street Station • NB 6 Ave at 18 St

CANADA WAY



Corridor Description

- The Canada Way / Eighth Street corridor connects New Westminster with Burnaby and the BC Institute of Technology.
- Route 123 serves the entire corridor with frequent service, connecting Brentwood Town Centre and the Millennium Line in Burnaby (just beyond the map area) with the Expo Line's New Westminster station.

Quick Facts

Length	9.6 km
Subregion	Burnaby/New Westminster
Primary Route	123
All Routes	105, 123, 133, 144

Notes: Corridor ranked #37 for person-delay per km in Fall 2021. Ridership is reported for the location with the most cumulative passengers on-board the bus throughout the day; lower end of the range accounts only for routes using the corridor for at least 1 km and upper end of the range reflects all routes.

28
Maximum hourly bus trips per direction

270
Person-hours of delay per day

17,200
Total households (700/km² density)

38%
Low income households

18%
Zero vehicle households

2,200-4,200
Total ridership
(daily load in one direction)

23
Bus-hours of delay per day

Demographics within 400m of corridor

Corridor Significance

- **Canada Way is an important transit street.** During weekday peak hours, Canada Way is served by a bus every 5 minutes. The primary route along the corridor, Route 123, runs every 9 to 10 minutes and has 5,000 boardings every weekday—the 4th highest in Burnaby/New Westminster. Among profile areas, Canada Way ranks fifth in terms of the share of low-income households.
- **Bus performance impacts reliability for people riding the bus.** A typical end-to-end trip on Canada Way between New Westminster Station and Willingdon Ave can vary by over 10 minutes, 6th highest among profile areas relative to the total average travel time.
- **Transit priority improvements are planned on Canada Way.** A RapidBus route is planned for Canada Way in TransLink's *10-Year Priorities*, connecting New Westminster Station to Brentwood Town Centre Station.

Key Challenges for Bus Speed & Reliability

- Major delays in this corridor are mostly caused by severe roadway congestion during peak periods on weekdays. In addition to congestion, delays are mainly at stop locations that require the bus to re-enter traffic or to pick up/drop off passengers at closely spaced stops along Canada Way and 8 Street.
- The 8 Street portion of the corridor is very constrained between Royal Avenue and 12 Avenue, with one general purpose lane and parking on both sides of the street. Parking along the street requires the bus to exit and re-enter traffic when leaving New Westminster Station.

Location of Common Causes of Bus Delay

Issue	Location(s)
Motorists turning left (or other delay from left-turns)	• NB 8 St at Royal Ave • NB/SB 8 St at 8 Ave • NB 8 St at 10 Ave • SB Canada Way at Kincaid St • SB Canada Way at Ulster St • SB Canada Way at 12 Ave • SB 8 St at Queens Ave
Motorists turning right (or other delay from right-turns)	• NB/SB 8 St at Royal Ave • NB 8 St at 6 Ave • NB 8 St at 7 Ave • NB Canada Way at Wedgewood St • NB Canada Way between Sperling Ave and Norland Ave • SB Canada Way between Kincaid St and Deer Lake Parkway • SB Canada Way between Ledger Ave and Stanley Cres • SB Canada Way at Imperial St • SB Canada Way at Rosewood St • SB Canada Way at 12 Ave • SB 8 St at Queens Ave

Issue	Location(s)
Roadway congestion	• NB/SB New Westminster Station • NB/SB 8 St at 5 Ave • NB 8 St at between 7 Ave and 10 Ave • NB Canada Way at 18 Ave • NB Canada Way between Burris St and Ledger Ave • SB Canada Way between Kincaid St and Deer Lake Pkwy • SB Canada way between Century Pkwy and Haszard St • SB Canada Way at Morley Dr • SB Canada Way at Rosewood St • SB Canada Way at 12 Ave • SB 8 St at 10 Ave
Closely spaced driveways or other roadways	• NB/SB Canada Way between 12 Ave and 14 Ave • NB Canada Way at Stanley St • NB Canada Way at Burris St • SB Canada Way at Willingdon Ave • SB Canada Way at Beta Ave • SB Canada Way between Hardwick St and Kincaid St • SB Canada Way at Ledger Ave • SB Canada Way between Century Pkwy and Sperling Ave • SB Canada Way at Rugby St • SB Canada Way at Imperial St
Re-entering traffic from bus stops	• NB 8 St at Queens Ave • NB 8 St at 3 Ave • NB 8 St at 5 Ave • NB/SB 8 St at 7 Ave • NB Canada Way at 12 Ave • NB Canada Way at Burris St • NB Canada Way at Ledger Ave • SB Canada Way at Willingdon Ave • SB Canada Way between Century Pkwy and Kincaid St • SB Canada Way at Rosewood St • SB 8 St at 4 Ave
Location of bus stops	• NB Canada Way at 12 Ave • NB Canada Way at 18 Ave • SB Canada Way at Willingdon Ave
Short spacing between bus stops	• NB Canada Way between 16 Ave and Wedgewood St • NB Canada Way at Elwell St • NB Canada Way at Imperial St • SB Canada Way at Deer Lake Pkwy • SB Canada Way at Ulster St • SB Canada Way between Edmonds St and 18 Ave • SB Canada Way at 12 Ave
Pedestrian movements (including pedestrian signals)	• NB New Westminster Station • NB 8 St at Royal Ave • NB 8 St at 3 Ave • NB 8 St at 4 Ave • NB/SB 8 St at 7 Ave • NB/SB Canada Way between 10 Ave and 12 Ave • NB Canada Way at 18 Ave • NB Canada Way between Ledger Ave and Norland Ave • SB Canada Way at Hardwick St • SB Canada Way at Rosewood St

Issue	Location(s)
Uncoordinated traffic signals	• NB 6 St at Carnarvon St • SB Canada Way at Kincaid St • SB Canada Way at Haszard St • SB Canada Way at Morley Dr
Schedules and/or timepoints	• NB 8 St at 8 Ave
Pedestrian access and/or safety	• NB 8 St at 7 Ave

BRIDGEPORT RD

Corridor Description

- This corridor connects south Vancouver with Richmond via the Knight Street Bridge.
- Three of the routes on this corridor (405, 407, 430) serve the Knight Street-Marine Drive bus exchange in South Vancouver. Route 430 connects Bridgeport Station on the Canada Line with Metrotown Station on the Expo Line.
- Destinations along the corridor are a combination of commercial and light industrial.

Quick Facts

Length	6.3 km
Subregions	Southwest, Vancouver/ UBC
Primary Routes	407, 430
All Routes	311, 351, 352, 354, 403, 405, 407, 412, 430, 601, 602, 603, 604, 620, 900

Note: Corridor ranked #40 for person-delay per km in Fall 2021. Profile area includes extensions on Great Canadian Way and the Knight Street Bridge. Ridership is reported for the location with the most cumulative passengers on-board the bus throughout the day.

57
Maximum hourly bus trips per direction

180
Person-hours of delay per day

2,700
Total households (300/km² density)

29%
Low income households

7%
Zero vehicle households

6,700
Total ridership (daily load in one direction)

13
Bus-hours of delay per day

Demographics within 400m of corridor

Corridor Significance

- **Bridgeport Rd is a major transit corridor.** The 430 and 407 buses, which are the primary routes serving the corridor, have over 7,000 daily boardings. A bus for these routes arrives every 5 to 6 minutes along Bridgeport Rd and across the Knight Street bridge. Up to two-thirds of people travelling on Bridgeport Rd near Great Canadian Way are on buses during the morning rush hours.

Key Challenges for Bus Speed & Reliability

- Narrow corridor adjacent to a mix of industrial and commercial businesses, with numerous vehicles entering and exiting the roadway from these land uses.
- Two travel lanes along the length of the roadway makes it challenging to have dedicated turning lanes.

Location of Common Causes of Bus Delay

Issue	Location(s)
Motorists turning left (or other delay from left-turns)	• EB Bridgeport Rd at Great Canadian Way • EB Bridgeport Rd at Sweden Way
Motorists turning right (or other delay from right-turns)	• EB Bridgeport Rd at Sweden Way • WB Bridgeport Rd at No 5 Rd
Roadway congestion	• SB Great Canadian Way from Van Horne Way to Bridgeport Rd • EB Bridgeport Rd at Oak St Bridge • WB Bridgeport Rd from McLeod Ave to No 4 Rd • EB Bridgeport Rd at Shell Rd • EB/WB Bridgeport Rd No 5 Rd • EB/WB Bridgeport Rd at Sweden Way • NB Knight St Bridge from Bridgeport Rd to Kent Ave • SB Knight St Bridge at Kent Ave
Closely spaced driveways or other roadways	• WB Bridgeport Rd from McLeod Ave to No 4 Rd • EB Bridgeport Rd at Shell Rd • EB/WB Bridgeport Rd No 5 Rd • EB Bridgeport Rd at Sweden Way • NB Great Canadian Way from Bridgeport Rd to Van Horne Way
Re-entering traffic from bus stops	• NB/SB Knight St Bridge
Location of bus stops	• EB Bridgeport Rd at Oak St Bridge • WB Bridgeport Rd at MacLeod Ave
Short spacing between bus stops	• EB Bridgeport Rd at Sweden Way
Uncoordinated traffic signals	• EB Bridgeport Rd at Great Canadian Way • EB Bridgeport Rd at Oak St Bridge • WB Bridgeport Rd from No 4 Rd to Great Canadian Way

152 ST

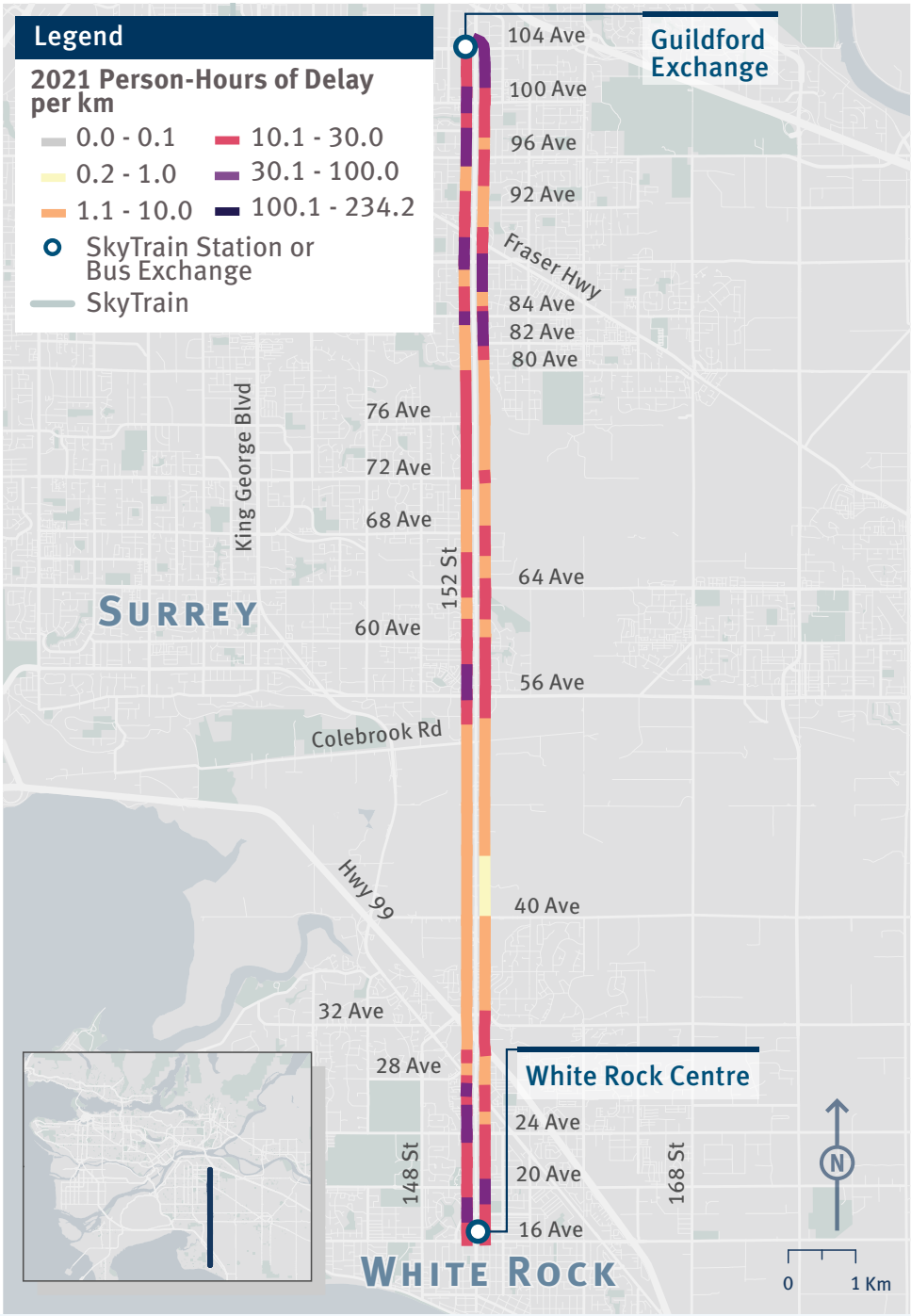
Corridor Description

- 152 Street is a major north-south corridor in Surrey and White Rock. It connects Guildford Exchange with White Rock Centre.
- Route 375 operates along the entire length of 152 Street. Route 345 operates along most of the corridor, but serves King George Station via Fraser Hwy.

Quick Facts

Length	17.9 km
Subregion	Southeast
Primary Routes	345, 375
All Routes	320, 321, 335, 342, 345, 351, 354, 361, 362, 363, 375, 394, 531, 855

Notes: Corridor ranked #41 for person-delay per km in Fall 2021. Ridership is reported for the location with the most cumulative passengers on-board the bus throughout the day.



27
Maximum hourly bus trips per direction

470
Person-hours of delay per day

16,900
Total households (200/km² density)

36%
Low income households

10%
Zero vehicle households

3,200
Total ridership
(daily load in one direction)

39
Bus-hours of delay per day

Demographics within 400m of corridor

Corridor Significance

- **152 St provides an important north-south transit connection through Surrey.** Buses carry approximately a third of people traveling through the southern end of the corridor. The share of low-income households ranks 10th among profile areas.
- **Variability along 152 St is fourth highest among areas profiled.** During heavier traffic, an end-to-end bus trip along this corridor can take nearly 17 minutes longer compared to a best-case trip, when the bus is able to move smoothly.
- **Transit priority measures are planned for 152 St.** A RapidBus route along the corridor is planned in TransLink's *10-Year Priorities*, connecting Newton Exchange to Guildford Exchange.

Key Challenges for Bus Speed & Reliability

- Most congestion on the roadway is due to conflicts with general purpose traffic and bus/bike conflicts along 152 St between 20 Ave and 26 Ave.
- Most delays are towards the northern part of the corridor at White Rock Centre. These delays are caused by congestion and turning movements from vehicles accessing businesses and shopping centers between 100 Ave and 94 Ave.

Location of Common Causes of Bus Delay

Issue	Location(s)
Motorists turning left (or other delay from left-turns)	• NB 16 Ave at 154 St • White Rock Centre • NB 152 St between 18 Ave and 19 Ave • NB 152 St between 26 Ave and 28 Ave • NB 152 St between 64 Ave and 68 Ave • NB 152 St between 101 Ave and 102A Ave • SB 152 St at Fraser Hwy • SB 152 St at 88 Ave
Motorists turning right (or other delay from right-turns)	• NB 16 Ave at 154 St • White Rock Centre • NB 152 St at 20 Ave • NB 152 St at 28 Ave • NB 152 St at 32 Ave • NB 152 St at 64 Ave • NB 152 St at 88 Ave • NB 152 St at 96 Ave • NB 152 St at 101 Ave • NB 152 St between 101 Ave and 102A Ave • SB 152 St between 33 Ave and King George Blvd • SB 152 St at 19 Ave
Roadway congestion	• NB 16 Ave at 154 St • NB 152 St at 20 Ave • NB 152 St at 28 Ave • NB 152 St between 32 Ave and 36 Ave • NB 152 St between 54A Ave and 58A Ave • NB/SB 152 St between 64 Ave and 66 Ave • NB/SB 152 St between 82 Ave and Fraser Hwy • NB 152 St at 96 Ave • NB 152 St between 101 Ave and 102A Ave • SB 152 St between 104 Ave and 94 Ave • SB 152 St between 60 Ave and Hwy 10 • SB 152 St between 28 Ave and 26 Ave • SB 152 St between 18 Ave and White Rock Centre

Issue	Location(s)
Closely spaced driveways or other roadways	• NB 16 Ave between 154 St and White Rock Centre • NB 152 St at 20 Ave • NB 152 St at 3000 Block • NB 152 St at Hwy 10 • NB 152 St at 64 Ave • NB 152 St at Fraser Hwy • NB/SB 152 St between 91 Ave and 92 Ave • NBSB 152 St between 94 Ave • NB/SB 152 St between 100 Ave and 102A Ave • SB 152 St between Fraser Hwy and 88 Ave • SB 152 St between 77 Ave and 66A Ave • SB 152 St at Hwy 10 • SB 152 St at 28 Ave • SB 152 St at 22 Ave
Re-entering traffic from bus stops	• NB 152 St between King George Blvd and 28 Ave • NB 152 St between 34 Ave and 58A Ave • NB 152 St at 60 Ave • NB 152 St at 64 Ave • NB 152 St between 66A Ave and 81 Ave • SB 152 St at 100 Ave • SB 152 St between 7900 Block and 36 Ave
Location of bus stops	• NB 152 St between King George Blvd and 28 Ave • NB 152 St between 64 Ave and 66A Ave
Short spacing between bus stops	• NB 16 Ave between 154 St • NB 152 St between White Rock Centre and 18 Ave • NB 152 St between 88 Ave and 98 Ave • SB 152 St between 96 Ave and 88 Ave • SB152 St between 26 Ave and King George Blvd
Pedestrian movements (including pedestrian signals)	• NB White Rock Centre • NB 152 St between 20 Ave and King George Blvd • NB 152 St at 36 Ave • NB 152 St at 6200 Block • NB 152 St at 68 Ave • NB 152 St at 101 Ave • SB 152 St between 19 Ave and 18 Ave • SB 152 St at 36 Ave • SB 152 St between 19 Ave and 18 Ave
Uncoordinated traffic signals	• NB at White Rock Centre • NB 152 St at 18 Ave • SB 152 St between 66A Ave and 62 Ave • SB 152 St at 18 Ave • SB 152 St at 64 Ave
Schedules and/or timepoints	• NB 152 St at 6200 Block
Bus/bicycle interactions	• NB/SB 152 St between 22 Ave and King George Blvd • NB/SB 152 St at 36 Ave • SB 152 St at 66A Ave • SB 152 St between 60 Ave and 54A Ave
Freight rail crossings	• NB/SB 152 St between 64 Ave and 66A Ave

128 ST

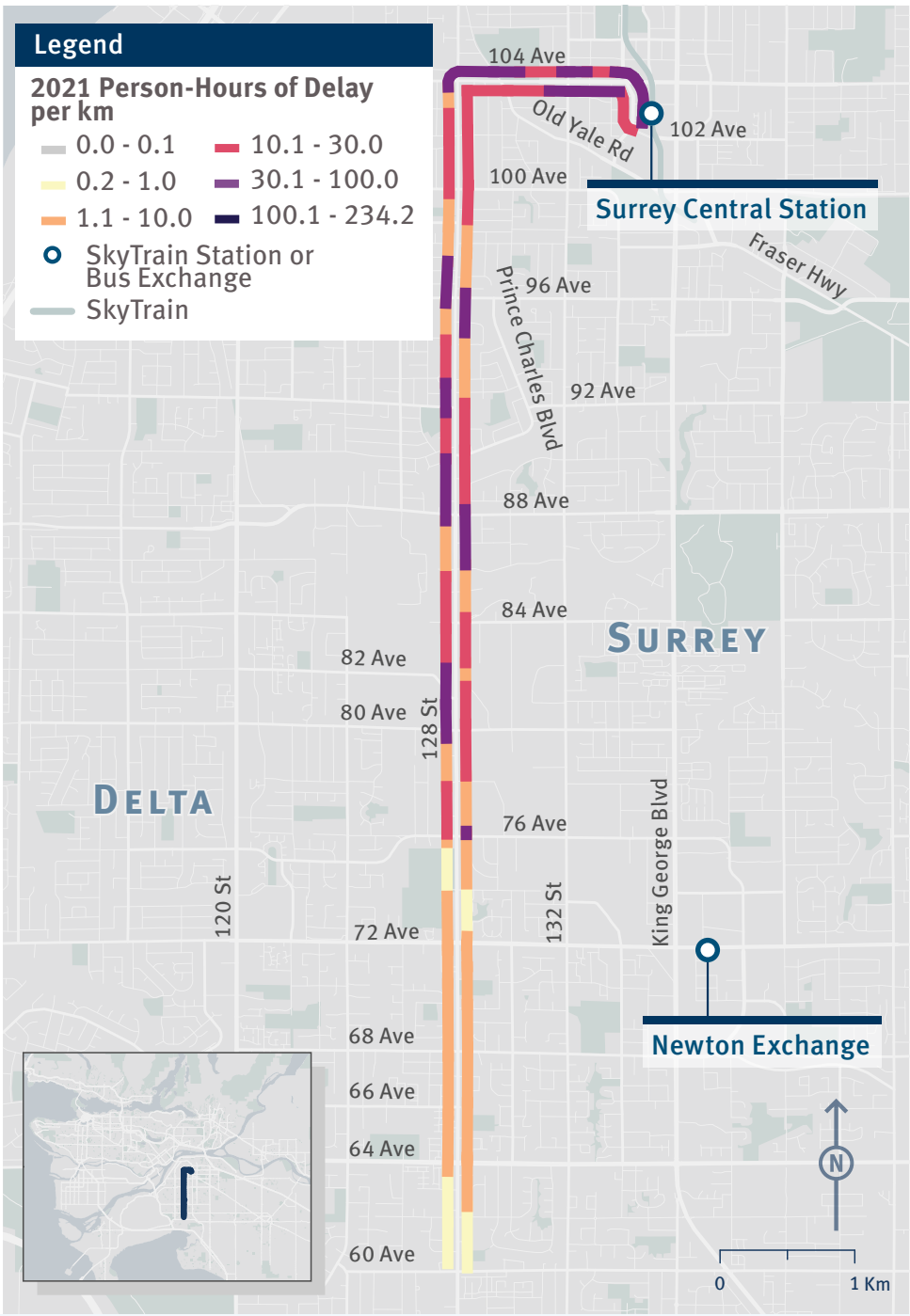
Corridor Description

- 128 Street is a north-south corridor through the eastern part of Surrey, including a connection to Surrey Central along 104 Ave.
- Route 323 provides frequent service along the northern two-thirds of the corridor between Surrey Central and Newton Exchange.
- Route 393 provides peak direction service between Newton Exchange and Surrey Central, including service to Kwantlen Polytechnic University (KPU).

Quick Facts

Length	10.4 km
Subregion	Southeast
Primary Route	323
All Routes	322, 323, 373, 393

Note: Corridor ranked #42 for person-delay per km in Fall 2021. Profile area includes an extension on 104 Ave. Ridership is reported for the location with the most cumulative passengers on-board the bus throughout the day; lower end of the range accounts only for routes using the corridor for at least 1 km and upper end of the range reflects all routes.



31
Maximum hourly bus trips per direction

330
Person-hours of delay per day

11,600
Total households (600/km² density)

30%
Low income households

8%
Zero vehicle households

2,800-6,100
Total ridership
(daily load in one direction)

20
Bus-hours of delay per day

Demographics within 400m of corridor

Corridor Significance

- **128 St is an important street for transit in Surrey.** During weekday peak hours, buses arrive approximately every 4 minutes. Nearly 30% of people travelling in the northern part of the corridor are on buses.
- **Bus performance can be unreliable for people riding the bus.** During heavier traffic, an end-to-end bus trip between the south part of the corridor and Surrey Central can take nearly 12 minutes longer compared to a best-case trip, when the bus is able to move smoothly.

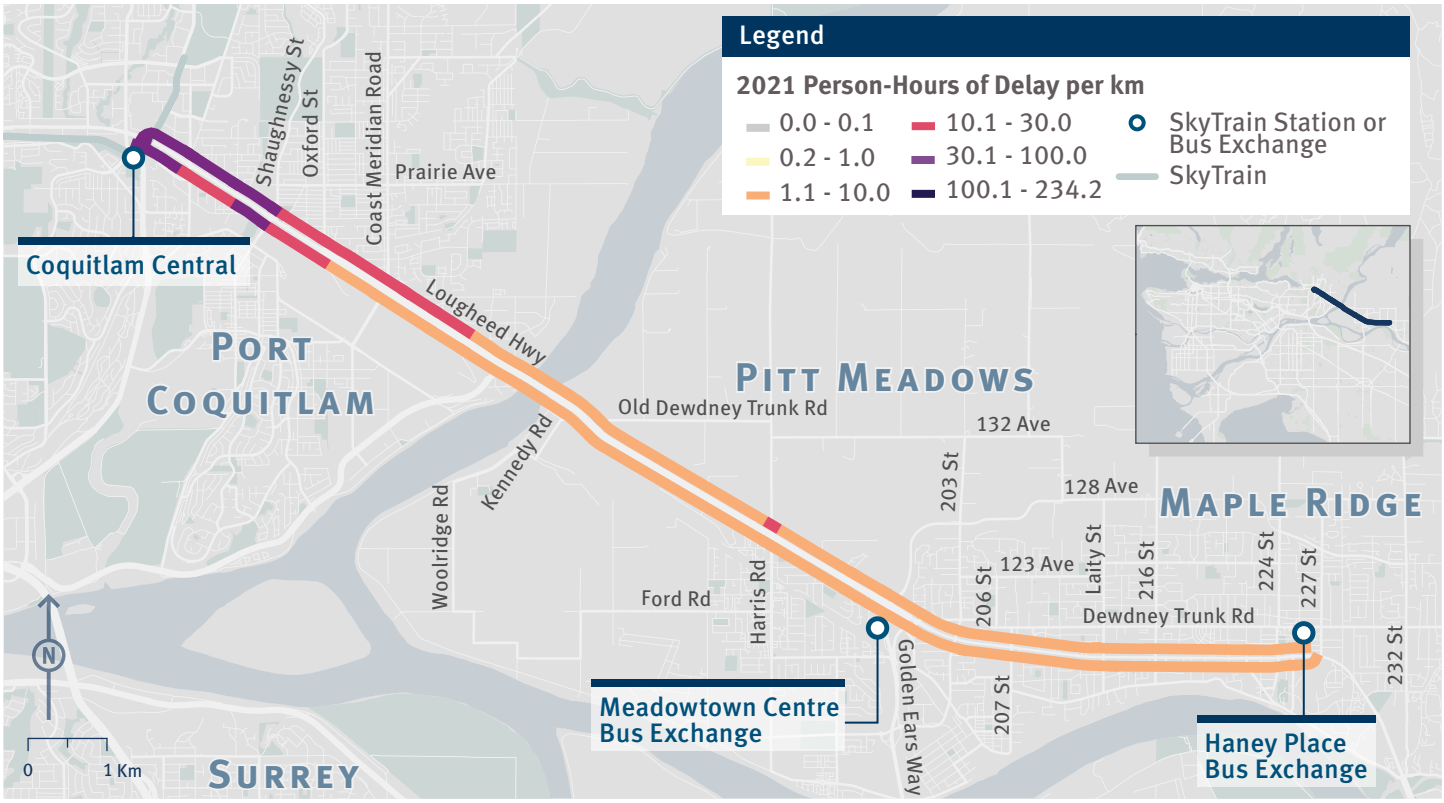
Key Challenges for Bus Speed & Reliability

- Roadway congestion at intersections along the full length of 128 St, including from right- and left-turning vehicles, frequent driveways and other business access, and changes between one and two travel lanes per direction.
- Buses serving portions of 128 St may be delay when making left-turns.
- Bike lane along full length of 128 St creates opportunities for conflicts/delay.
- Bottleneck along 104 Ave where travel lanes are reduced to one per direction.

Location of Common Causes of Bus Delay

Issue	Location(s)
Motorists turning left (or other delay from left-turns)	• SB 128 St at 64 Ave (Route 393) • NB 128 St at 72 Ave (Route 322) • SB 128 St at 76 Ave (Route 323) • SB 128 St at 78 Ave (unprotected turn pocket) • NB 128 St at 94 Ave • WB 104 Ave at 128 St (Routes 322 and 323) • WB 104 Ave at Old Yale Rd • NB University Dr at 104 Ave
Motorists turning right (or other delay from right-turns)	• NB/SB 128 St at 64 Ave • NB/SB 128 St at 68 Ave • NB/SB 128 St at 72 Ave • NB/SB 128 St at 76 Ave • SB 128 St at 78 Ave (unsignalized) • NB 128 St at 80 Ave • SB 128 at 82 Ave • NB 128 St at 86 Ave • SB 128 at 92 Ave • NB 128 St at 94 Ave • NB/SB 128 St at 96 Ave
Roadway congestion	• NB/SB 128 St between S of 72 Ave and N of 82 Ave • NB/SB 128 St between 86 Ave and 93 Ave (particularly approaching 88 Ave) • NB/SB 128 St at 96 Ave • EB/WB 104 Ave at 132 St (lane reduction) • SB/NB University Dr between 104 Ave and Surrey Central
Closely spaced driveways or other roadways	• SB/NB 128 St between 72 Ave and 84 Ave
Re-entering traffic from bus stops	• NB 128 St between 92 Ave and 102 Ave • SB 128 St between 99 Ave and 90 Ave
Short spacing between bus stops	• NB 128 St at 82 Ave
Pedestrian access and/or safety	• NB between 60 Ave and 66 Ave
Freight rail crossings	• NB/SB 128 Ave at 82 Ave

LOUGHEED HWY



Corridor Description

- The Lougheed corridor connects the cities of Coquitlam, Port Coquitlam, Pitt Meadows, and Maple Ridge. A significant portion of the corridor passes through agricultural and industrial lands.
- The R3 RapidBus line began service along Lougheed Highway in early 2020. It runs between Coquitlam Central Station (Millennium Line and West Coast Express) and the bus exchange at Haney Place Mall in Maple Ridge.

Quick Facts

Length	16.7 km
Subregions	Maple Ridge/Pitt Meadows, Northeast
Primary Routes	R3, 701
All Routes	159, 160, 171, 172, 189, 595, 701, 722, 748, 791, R3

Notes: Corridor ranked #44 for person-delay per km in Fall 2021. Profile area varies slightly from the corridor. Ridership is reported for the location with the most cumulative passengers on-board the bus throughout the day; lower end of the range accounts only for routes using the corridor for at least 1 km and upper end of the range reflects all routes.

43
Maximum hourly bus trips per direction

320
Person-hours of delay per day

11,200
Total households (200/km² density)

35%
Low income households

10%
Zero vehicle households

Demographics within 400m of corridor

2,400-3,400
Total ridership
(daily load in one direction)

40
Bus-hours of delay per day

TRANSLINK

Corridor Significance

- **Lougheed Hwy provides an important transit connection between the Northeast Sector and Maple Ridge/Pitt Meadows.**
- **Performance can be unreliable for people riding the bus.** During heavier traffic, an end-to-end bus trip on Lougheed Hwy between Coquitlam Central and Haney Place Mall can take nearly 10 minutes longer compared to a best-case trip, when the bus is able to move smoothly.
- **Additional transit priority is planned for Lougheed Hwy.** A planned upgrade of the current R3 RapidBus to BRT in TransLink's *10-Year Priorities* would provide faster connections between the city centre of Coquitlam and the city centre of Maple Ridge.

Key Challenges for Bus Speed & Reliability

- Constrained right-of-way limits continuous bus priority treatments in some locations without major infrastructure investments.
- Limited alternative routes on parts of the corridors funnels local and regional traffic onto Lougheed in parts of the corridor.
- Right-turns at access roadways and driveways into major retail areas can slow buses and/or limit effectiveness of curbside bus-only lanes.

Location of Common Causes of Bus Delay

Issue	Location(s)
Motorists turning left (or other delay from left-turns)	• WB at Pinetree Way (buses merging across travel lanes to turn left using bus-only turn lane)
Motorists turning right (or other delay from right-turns)	• WB between 226 St and 225 St (right-turns into Haney Place Mall) • WB/EB between Laity St and Dewdney Trunk Rd including 207 St and 203 St (right-turns into retail areas) • High right-turn volumes into retail area, vehicles merge into right-turn lane • EB at Pinetree Way (delay from right turns) • EB between Pinetree Way and Westwood St (bus lane added with R3 project, but may be affected by right-turns into major retail areas)
Roadway congestion	• WB/EB at 203 St • EB at Golden Ears Way (Meadowtown Mall) • WB at Harris Rd • WB between Sherling Ave and Shaughnessy St • WB/EB between Hastings St and Shaughnessy St (includes the Coquitlam River bridge, a significant bottleneck which is constrained to two lanes per direction) • EB between Shaughnessy St and Oxford St • WB/EB between Pinetree Way and Westwood St (including on Saturdays)
Closely spaced driveways or other roadways	• WB/EB between Laity St and Dewdney Trunk Rd including 203 St (driveways and access roads into retail areas) • WB/EB Pinetree Way to Westwood St (access roads to major retail areas)
Re-entering traffic from bus stops	• EB at Coquitlam Central (a bus-only signal added with the R3 RapidBus should stop traffic to allow buses to enter the roadway, but effectiveness could be verified)

200 ST / GOLDEN EARS BRIDGE

Corridor Description

- Golden Ears Way and the Golden Ears Bridge connect Pitt Meadows and Maple Ridge with Carvolth and Langley south of the Fraser River. The corridor follows 200 Street to Langley Centre.
- Route 595 serves the full corridor between the West Coast Express' Maple Meadows station, Carvolth Exchange, and Langley Centre. Route 501 runs on the corridor south of 96 Ave; it connects to the Guildford Exchange and Surrey Central.

Quick Facts

Length	12.7 km
Subregions	Southeast, Maple Ridge/Pitt Meadows
Primary Routes	501, 595
All Routes	388, 501, 595

Notes: Corridor ranked #52 for person-delay per km in Fall 2021. Profile area varies slightly from the corridor. Ridership is reported for the location with the most cumulative passengers on-board the bus throughout the day; lower end of the range accounts only for routes using the corridor for at least 1 km and upper end of the range reflects all routes.

20
Maximum hourly bus trips per direction

140
Person-hours of delay per day

5,600
Total households (200/km² density)

27%
Low income households

6%
Zero vehicle households

1,500-2,800
Total ridership
(daily load in one direction)

11
Bus-hours of delay per day

Demographics within 400m of corridor

Corridor Significance

- **Golden Ears Way, 200 St, and the Golden Ears Bridge provide important transit connections between the Southeast sub-region and both Maple Ridge/Pitt Meadows and Surrey.** Buses carry 30 to 40% of people travelling this corridor south of the Trans-Canada Hwy during morning rush hours.
- **Performance can be unreliable for people riding the bus.** During heavier traffic, an end-to-end bus trip between Langley and Maple Ridge can take nearly 9 minutes longer compared to a best-case trip, when the bus is able to move smoothly.
- **Additional transit priority is planned.** A RapidBus route is planned for the 200 St – Golden Ears corridor in TransLink's *10-Year Priorities*, along with consideration of and planning for BRT in the future.

Key Challenges for Bus Speed & Reliability

- Roadway congestion at major intersections. Frequent driveways, such as between Willowbrook Drive and 64 Ave, can increase conflict between buses and motorists and slow traffic.
- Travel to Carvolth Exchange requires multiple turns at stop-controlled or uncontrolled intersections.
- Pedestrian infrastructure not present or lower quality (e.g., sidewalks narrow or not present) in some parts of the corridor.
- This corridor is undergoing rapid development. This increases travel demand as well as causes traffic delays due to construction, particularly along 86 Ave.

Location of Common Causes of Bus Delay

Issue	Location(s)
Motorists turning left (or other delay from left-turns)	• EB Willowbrook Dr to NB 200 St (buses turning left) • NB 202 St at 91A Ave (buses turning left) • SB 200 St at 91A Ave (buses turning left) • WB 86 Ave to SB 200 St (buses turning left) • EB 86 Ave to NB 202 St (buses turning left)
Motorists turning right (or other delay from right-turns)	• SB 200 St at Willowbrook Dr (buses turning right)
Roadway congestion	• NB 200 St between Willowbrook Dr and 66 Ave • SB 200 St between 68 Ave and Willowbrook Dr • NB/SB 200 St at 72 Ave • NB 200 St at 80 Ave (starting south of 80th Ave) • NB 200 St between 80 Ave and 86 Ave • SB 200 St between 84 Ave and 80 Ave • EB/WB 86 Ave between 200 St and 200 St with all-way stop at 202 St • NB/SB 202 St between 86 Ave and 88 Ave (includes Carvolth Exchange) • NB/SB 202 St at 88 Ave • NB 200 St/201 St between 91A Ave and 96 Ave • SB 200 St between 9200 Block and 91A Ave
Closely spaced driveways or other roadways	• NB/SB 200 St between Willowbrook Dr and 64 Ave, at 72 Ave
Re-entering traffic from bus stops	• NB 200 St at 78B Ave (Willoughby Community Centre) • EB 86 Ave E of 200 St • SB 202 St at Carvolth Exchange (buses turning left in bus-only lane to enter Exchange and turning left to exit Exchange; intersection is uncontrolled)
Pedestrian access and/or safety	• NB/SB 200 St at 76 Ave (stops at unsignalized intersection; signed for new development on west side)