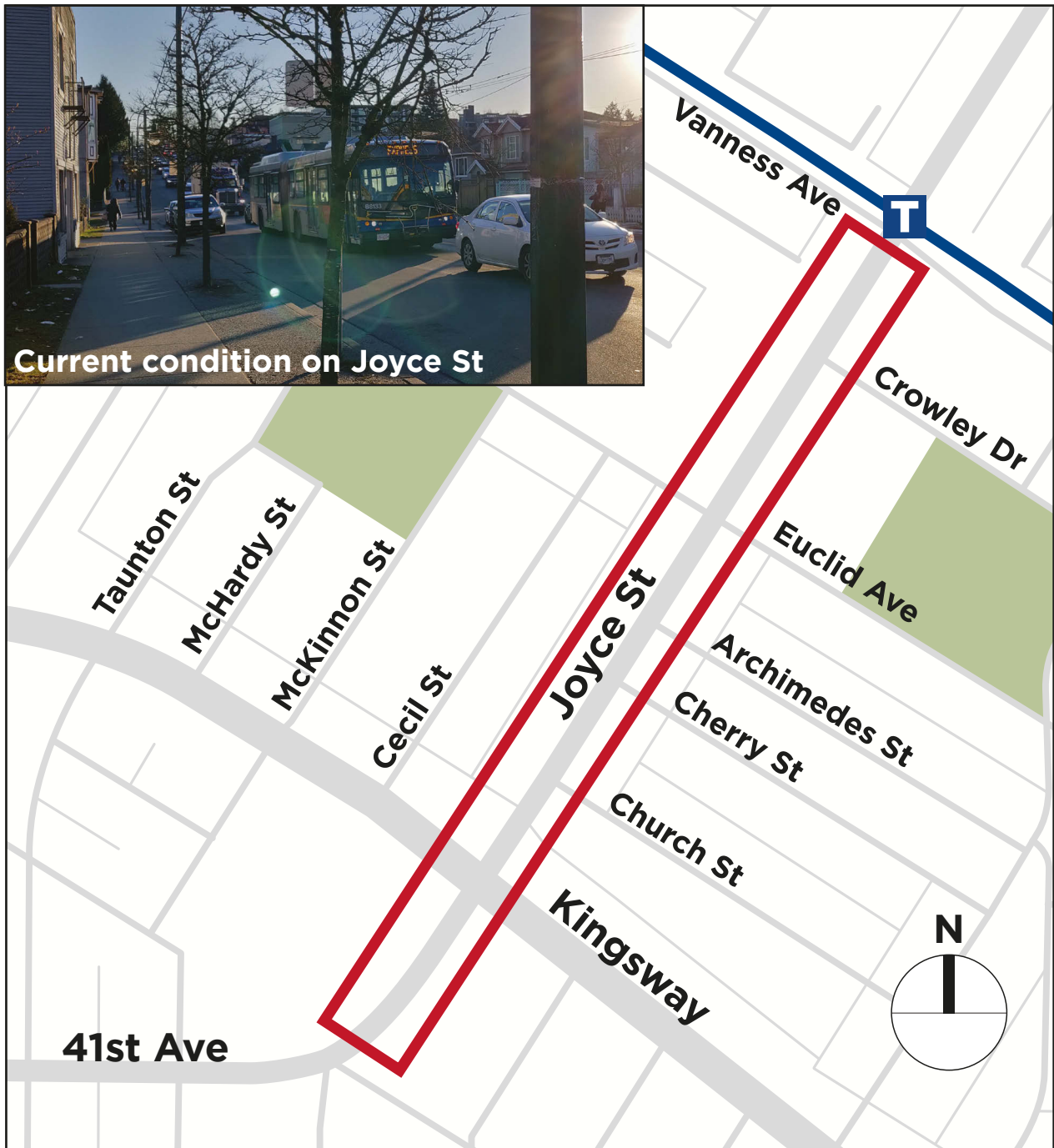


10. 41ST AVE-JOYCE ST UPGRADES

Kingsway to Joyce-Collingwood Station

Background

Joyce St., between Kingsway and Vanness Ave., is a busy arterial street in a dense commercial and residential neighbourhood. It is also the easternmost segment of the 41 bus route, which terminates in a busy transit hub at Joyce-Collingwood SkyTrain Station. Vehicles travelling along this stretch currently experience one of the slowest average speeds along the entire 12.3 km transit corridor, partly due to the need to yield to buses switching between the travel lane and parking lane to pick up passengers. Buses are similarly delayed in single lane traffic, resulting in longer journey times and a less reliable service for transit passengers. The Joyce-Collingwood Station Precinct Plan (approved by Council in 2016) calls for the introduction of a new B-Line along 41st Ave. and Joyce St. in support of transit and public realm improvements.



Location map of Joyce St B-Line street upgrades

What We're Proposing

The City has worked with TransLink to design changes to the street that will improve the capacity, flow and reliability of bus service and vehicle traffic on Joyce St. The planned changes include:

- New separated B-Line bus stops on Joyce St. at Kingsway;
- Installation of a northbound queue jump lane for buses at the Joyce St. and Kingsway intersection;
- Installation of full time bus-priority lanes on both sides of the street;
- Removal of parking on Joyce St. between Church St. and Crowley Dr., and minor adjustments to parking regulations on side streets to accommodate existing passenger zones; and,
- New amenities such as real-time bus information displays.

Bus lanes save time

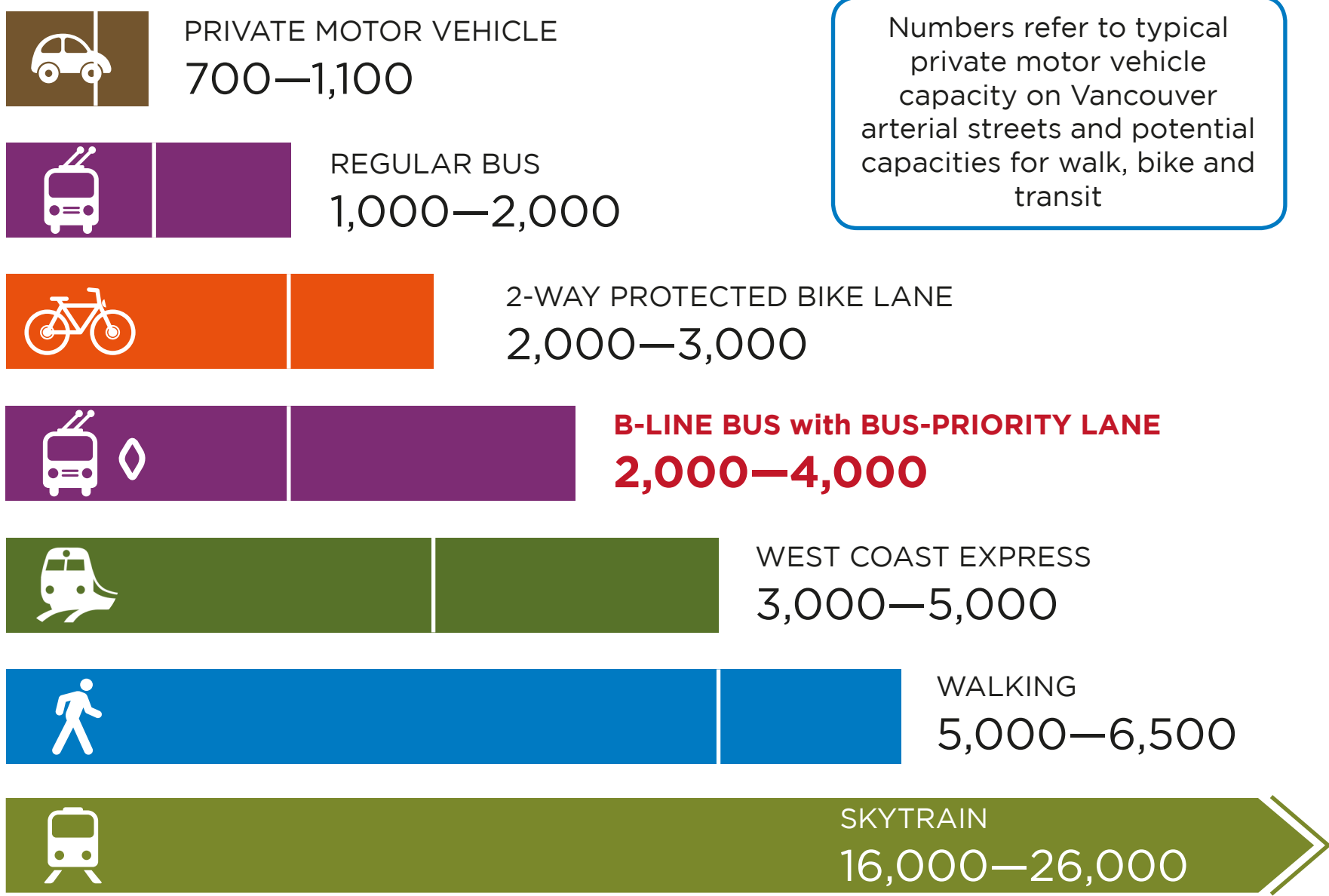


When the operational hours of the bus-priority lanes on Hastings St. were recently extended by one hour (ending at 7 pm instead of 6 pm), journey times during this hour were reduced by approximately 3 minutes, or 15%, over a 6.4 km stretch.* For Joyce St., we recommend that the bus-priority lanes be operational at all times so that bus service remains reliable and navigation for road users remains consistent.

* The journey savings were determined by comparing the time it took the bus to travel along Hastings St., from Seymour St. to Kootney Loop, between 6 pm and 7 pm before and after the extension of bus-priority lane hours. The results showed that journey times were reduced from 21 minutes to 18 minutes. Data was provided by TransLink.

What are the benefits of bus-priority lanes?

PEOPLE-MOVING CAPACITY: Vancouver Urban Transportation Modes (in persons per hour per direction - 3 metre lane width)



Source: City of Vancouver - Transportation Planning Branch, Engineering Analysis; with reference to TransLink data, Transit Research Board, and Urban Transit Systems and Technology manuals

Bus-priority lanes have been proven to move more people more efficiently through a fixed street width than general vehicle travel lanes.

Buses in priority lanes are not delayed by:

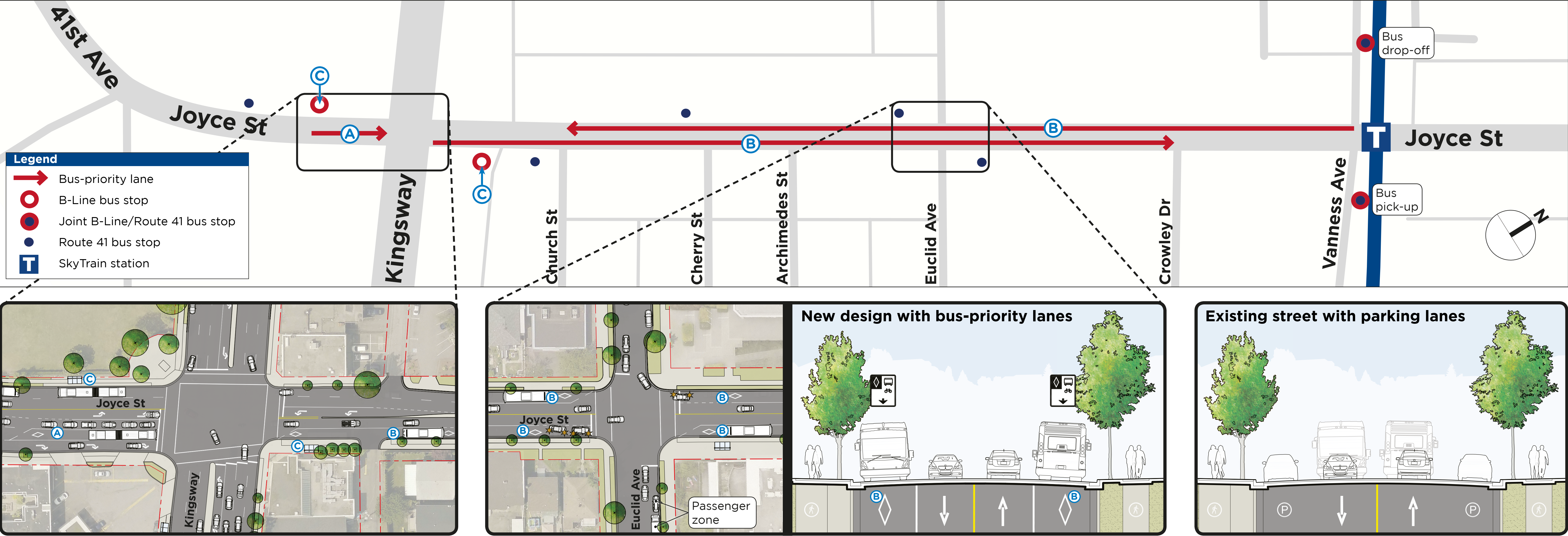
- general vehicle congestion;
- parallel parking activities when the priority lane is adjacent to the curb; and,
- having to wait for a chance to pull out into the general travel lane after picking up passengers.

If buses have all-door boarding, this also saves time at each stop when picking up passengers.

These factors allow buses to travel at consistent speeds, helping them stay on schedule. This also reduces bus bunching and maximizes the capacity of each bus, leading to more reliable transit service.

11. 41ST AVE-JOYCE ST UPGRADES

Kingsway to Joyce-Collingwood Station - Recommended Design



What is Different?

Why?

A

New transit queue jump lane at Joyce St. and Kingsway

The queue jump lane allows buses to bypass the line of cars and stop at the front of the intersection, reducing bus delays. An advanced green light is not required for the bus because it has a bus-priority lane on the other side of the intersection (north of Kingsway).

B

Replace parking lanes with new bus-priority lanes on Joyce St.

Adding a bus-priority lane eliminates the current need for cars to yield to buses that weave in and out of the vehicle travel lane to pick up passengers. This results in more consistent travel times for both cars and buses and more people to move through in the same amount of road width. Vehicles can move into the bus-priority lane to turn right or access driveways fronting Joyce St, reducing vehicle congestion in the general travel lane. People cycling are also permitted to use the bus-priority lane.

C

New B-Line stops on Joyce St. at Kingsway that are separate from regular Route 41 bus stops

Allocating curb space for separate bus stops reduces delays, as buses as it allows for multiple buses to board at the same time.

Neighbourhood Parking

Visitors and residents who currently park on Joyce St. are encouraged to use parking lots, garages or street parking in the surrounding area. However, the City can adjust parking regulations (such as permit parking and time restrictions) to better suit the needs of the neighbourhood. To find out more, call 3-1-1 and ask for a parking information officer.