1. WELCOME

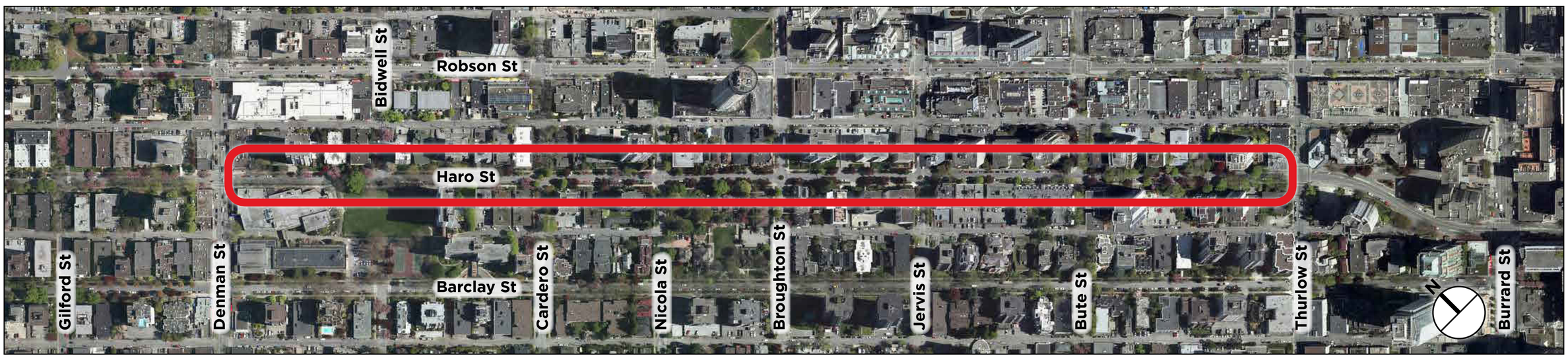
Haro Street Bikeway | Haro and Bute Infrastructure Upgrades

What's happening?

The City is planning to improve conditions for walking, rolling and cycling along the Haro Street Bikeway, from Denman St. to Thurlow St. This will be coordinated with the roadwork that follows the water main replacement in the West End as part of the Haro and Bute Infrastructure Upgrades. The changes will:

- Improve safety, comfort, wayfinding and accessibility for people of all ages and abilities, especially at key intersections;
- Maintain access to adjacent homes, businesses and other destinations while ensuring that the design meets the needs of people walking and cycling; and,
- Lower motor vehicle volumes and update signage and paint to meet AAA (all-ages-and-abilities) design guidelines for local street bikeways.

Haro St. Bikeway, looking west



Haro Street Bikeway Project Area (Denman St. to Thurlow St.)

Where are we now?

Spring 2019

Water Main Replacement Begins

Construction of the Haro and Bute Infrastructure Upgrades began at Robson and Chilco Streets and will progress eastwards on Haro St. towards Thurlow St., then north along Bute St.

Summer 2019

Stakeholder Consultations

Met with stakeholders such as community organizations and businesses to gather information and understand issues to inform the design process.

Fall 2019

Public Open House and Online Survey

Staff presents design options to the public to gather feedback that will be used to develop the final design.

Spring 2020

Public Notification of Final Design

The detailed design will be made available to the public for comment, and a consultation report will summarize how the final design responds to feedback received from the public.

TBD 2020

Construction of Haro St. Bikeway Improvements

The final design of the Haro Street Bikeway will be constructed and then monitored for several months after completion.

Tell us what you think!

In Person Complete a survey at today's open house.

Online Complete an online survey at **vancouver.ca/harobuteupgrades**

Email Send comments or questions to **harobuteupgrades@vancouver.ca**

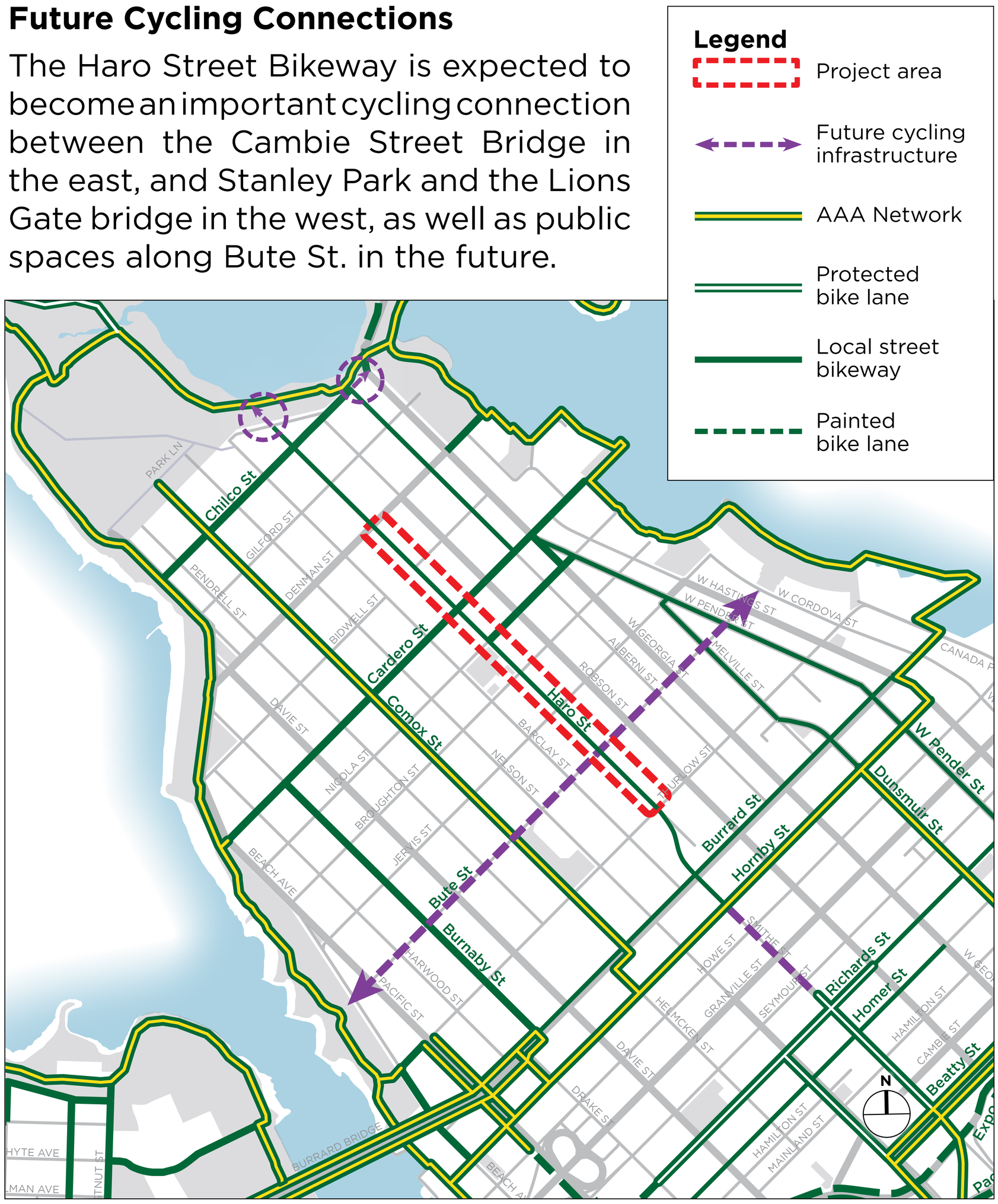
Phone Call **3-1-1** to provide comments or questions

Please submit feedback by October 15, 2019

Why Haro Street?

Future Cycling Connections

The Haro Street Bikeway is expected to become an important cycling connection between the Cambie Street Bridge in the east, and Stanley Park and the Lions Gate bridge in the west, as well as public spaces along Bute St. in the future.



Haro and Bute Water Main Replacement

The water main below Haro and Bute St. is being replaced with a larger-capacity system. This provides an opportunity to improve the Haro St. Bikeway when the street is reconstructed.

Walking comfort & accessibility

When Haro St. became a local street bikeway in 2012, changes were limited to signage and paint. The street does not currently meet AAA design guidelines, and some sections are not designed for accessibility.

Green rainwater infrastructure

There is an opportunity to introduce more nature into the neighbourhood and capture and clean our rain water.

AAA Design Guidelines

The City has a vision to make cycling safe, convenient, comfortable and fun for people of all ages and abilities (AAA). This means creating an interconnected network of safe, low-stress bike routes so that cycling becomes a viable option for a wide spectrum of the population, including families with children, seniors and new riders. AAA goals that guide the design for Haro St. include:

1. Building cycling facilities that feel comfortable for everyone
2. Target motor vehicle volume below 500/day
3. Target motor vehicle speed below 30 km/hr
4. Consider width required for parking and passing
5. Design intersections thoughtfully to reduce conflicts, increase visibility, and provide clear direction of movement

Please refer to AAA design boards for more details

3. POLICY CONTEXT

Haro Street Bikeway | Haro and Bute Infrastructure Upgrades

Transportation 2040

Approved by Council in 2012, Transportation 2040 is a long-term strategic vision for the city that helps guide transportation and land use decisions and public investments for the years ahead. Policy directions that relate to the Haro Street Bikeway design include:

W 1.1 Make streets safer for walking.

W 1.3 Make streets accessible for all people.

W 1.6.2 Explore opportunities to improve local ecology when designing and (re)building streets and other rights-of-way, for example by improving wildlife habitat and stormwater management, restoring native flora, increasing the number, size, and health of street trees, and daylighting lost streams.

C 1.1 Build cycling routes that feel comfortable for people of all ages and abilities.

C 1.2 Upgrade and expand the cycling network to efficiently connect people to destinations.

C 1.2.6 Consider cycling improvements as part of all street capital projects, installing and upgrading routes as opportunities arise through construction and rehabilitation projects.

M 1.3 Manage traffic to improve safety and neighbourhood livability.

West End Community Plan

Approved by Council in 2013, the West End Community Plan provides a framework to guide short-term and long-term goals in the West End.

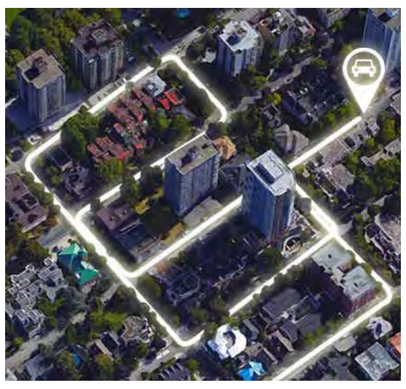
Policy directions:

- Make walking safe, convenient and delightful for all ages and abilities, and ensure streets and sidewalks support a vibrant public life that encourages a walking culture, healthy lifestyles, and social connectedness.
- Make cycling safe, convenient, and comfortable for people of all ages and abilities. Prioritize connections to important destinations like schools, community centres, transit stations, and shopping areas.

Other supporting policies

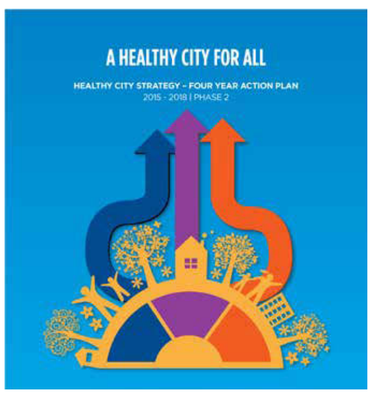
Greenest City Action Plan

Targets: Make at least two thirds of all trips by foot, bike and public transit by 2040.



West End Parking Strategy

The strategy responds to community-identified concerns, and actions are taken to make it easier to find parking in the West End without encouraging more driving overall.



Healthy City Strategy

2025 Target: Increase the percentage of Vancouver residents aged 18 and older who meet the Canadian Physical Activity Guidelines by 25% over 2014 levels.

Climate Emergency Response

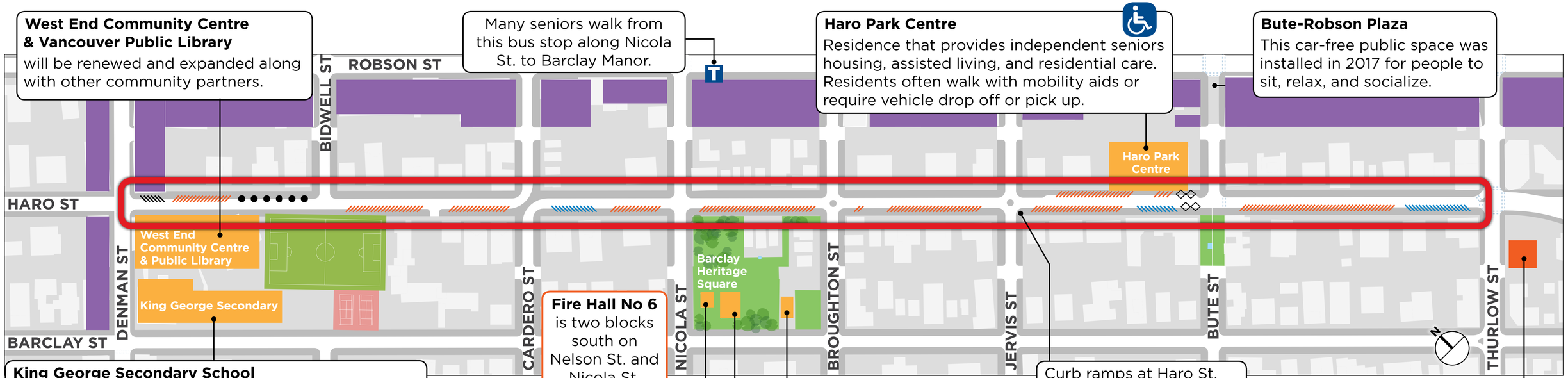
One of the six big moves to fight climate change is to accelerate the target of making two thirds of trips by active transportation and transit by 2030.

4. NEIGHBOURHOOD CONTEXT

Haro Street Bikeway | Haro and Bute Infrastructure Upgrades

What we learned so far

In the summer of 2019, we visited the neighbourhood and talked to some key stakeholders along Haro St. such as community groups, businesses, and non-profit organizations to learn more about how the street functions and how it could be improved. The map below shows both information gathered and feedback we've heard.



West End Community Centre & Vancouver Public Library
will be renewed and expanded along with other community partners.

Many seniors walk from this bus stop along Nicola St. to Barclay Manor.

Haro Park Centre
Residence that provides independent seniors housing, assisted living, and residential care. Residents often walk with mobility aids or require vehicle drop off or pick up.

Bute-Robson Plaza
This car-free public space was installed in 2017 for people to sit, relax, and socialize.

King George Secondary School
Will be renewed and expanded with other community facilities in the future. Most students live downtown. Deliveries and drop-offs occur mostly on Barclay St.

Fire Hall No 6
is two blocks south on Nelson St. and Nicola St.

Vancouver Friends for Life Society
A wellness centre that provides specialized support programs to people living with HIV, cancer, and other serious illnesses.

Roedde House Museum
A restored, late-Victorian home that gives tours depicting life at the turn of the 19th century and is a venue for community events such as concerts and sometimes interactive theatre.

Curb ramps at Haro St. and Jervis St. are not designed for accessibility.

Fire Hall No 7
The fire hall can be called to any part of the city, but if it's in the West End, often it will use Haro St. as an access route.

Barclay Manor
Barclay Manor is a seniors centre in a heritage building and is affiliated with the West End Community Centre. A popular destination for seniors in the neighbourhood, many of whom arrive by foot or transit, the centre offers a wide range of activities, programs, and classes for older adults.

Legend

- Fire Hall
- Community destinations
- Stores & businesses
- Frequented by people who may have disabilities or be mobility challenged such as seniors
- Pay parking
- 1h parking (9am-6pm, Mon-Sat)
- 2h parking (9am-8pm, Mon-Sat)
- Residential permit parking
- Car share parking

The street seems quite dark at night, would be nice if the lighting was better.

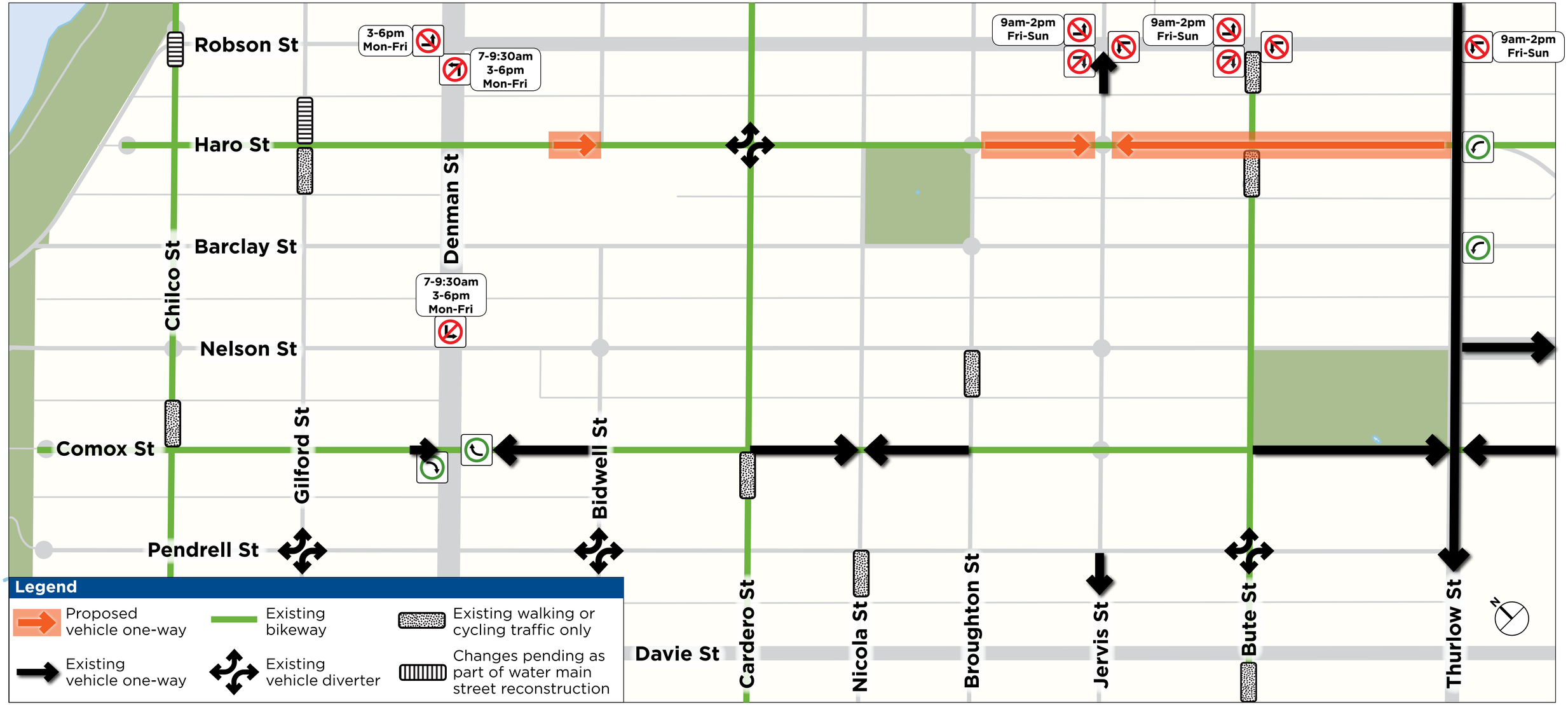
On-street parking is often hard to find, so we support improvements to increase parking turnover.

The traffic calming makes streets quieter and the West End a more attractive place to live, but it also makes it more difficult for driving.

5. VEHICLE CIRCULATION

Existing and proposed vehicle circulation

One of the most effective ways to improve the safety and comfort of people walking and cycling - especially on smaller local streets - is to lower motor vehicle volumes. This is achieved through the use of diverters and one-way streets, which limit the ability of motor vehicles to shortcut through the neighbourhood without preventing them from accessing homes, businesses and other destinations.

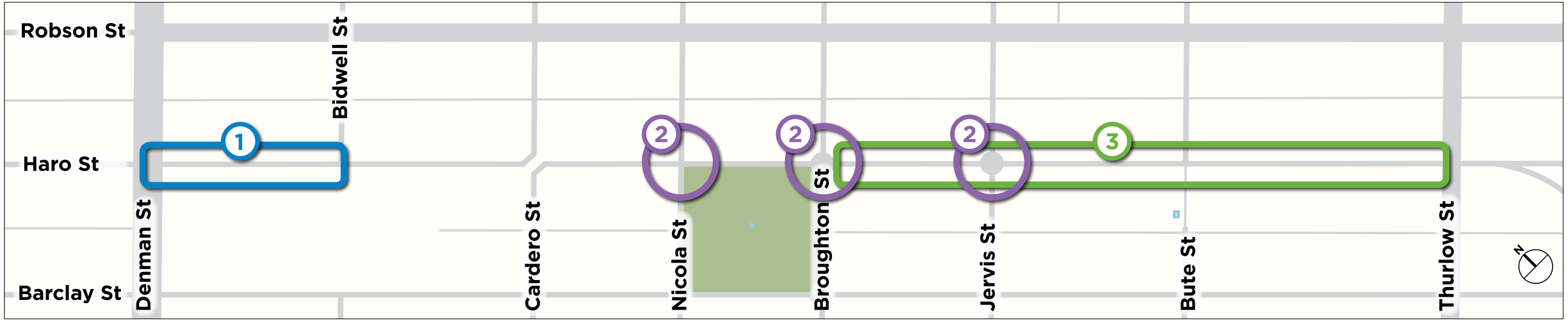


6. PROJECT SCOPE

Haro Street Bikeway | Haro and Bute Infrastructure Upgrades

Targeted improvement areas

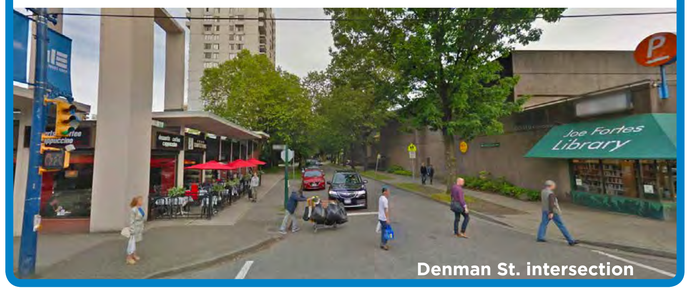
Three areas of the Haro Street Bikeway have been identified for targeted walking and cycling improvements, where changes are expected to be most effective in making Haro St. more safe and comfortable for people of all ages and abilities.



Area 1

West Haro (Denman to Bidwell)

- Higher motor vehicle volumes than most of the bikeway
- Busy area due to adjacent West End Community Centre, King George Secondary School, and businesses on Denman St.



Denman St. intersection

Area 2

Mid-Haro Intersections

(Nicola)

- Moderate vehicle volumes
- Higher foot traffic from seniors in the neighbourhood and due to proximity to Barclay Manor

(Broughton & Jervis)

- Existing traffic circles will need to be removed for water main work
- Regular foot traffic and seniors from Haro Park Centre


Jervis St. intersection

Area 3

East Haro (Broughton to Thurlow)


Thurlow St. intersection


Bute St. intersection

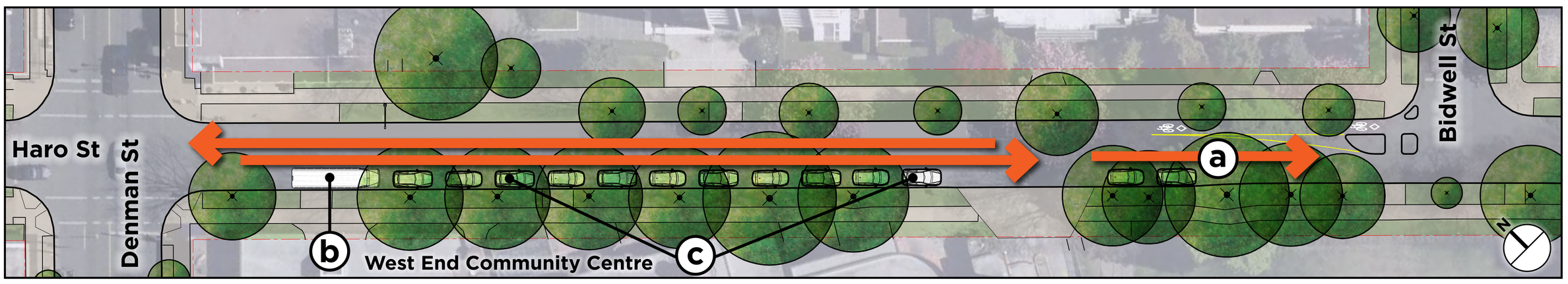
- High motor vehicle volumes due to proximity to downtown core
- Mostly residential neighbourhood
- Emergency access route from Fire Hall No. 6 at Thurlow St.
- Connection to future public spaces on Bute St., the downtown core and eastward to Cambie St. Bridge

7. DESIGN OPTIONS

Area 1 - West Haro

One of the busiest blocks of the Haro Street Bikeway is from Denman St. to Bidwell St. The design options below are aimed at bringing vehicle volumes closer to the AAA guideline of 500 vehicles per day and will be a temporary solution. When the community centre site redevelops, staff will work closely with the West End Community Centre to reassess the location of pick up and drop off areas, parking access, local neighbourhood access, and allocation of public space and amenities.

Option 1 (One-way eastbound from south driveway to Bidwell)

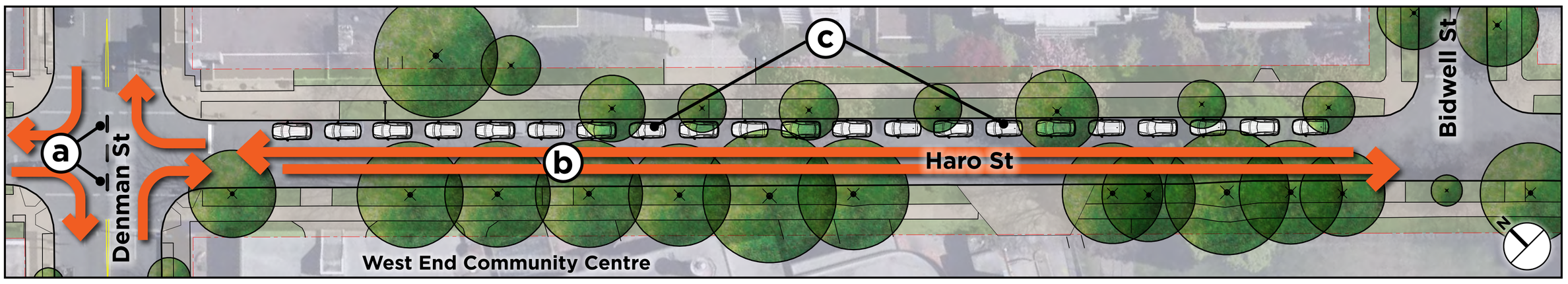


(a) One-way vehicles eastbound from the driveway to Bidwell St.

(b) Loading zone on south side of street

(c) Parking on south side of street

Option 2 (Two-way with turn restrictions)



(a) Median diverters on Denman St.
- Right turn only for vehicles from both sides of Haro St. onto Denman St.
- No left turns or east-west through movements for motor vehicles on Haro St.

(b) Haro St. maintains two-way motor vehicle traffic

(c) Parking on north side of street

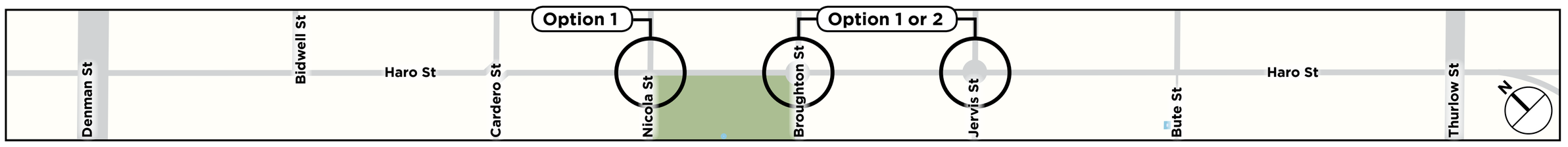
How the options affect:	Option 1 (Recommended) (one-way eastbound)	Option 2 (two-way with turn restrictions)
Motor vehicle volumes	Reduced vehicle volumes *east of Denman St.* to make walking and cycling more safe and comfortable	Reduced vehicle volumes on *both sides of Denman St.* to make walking and cycling more safe and comfortable
Motor vehicle access and circulation	Vehicles will be required to access the community centre from the arterial street (Denman St.) rather than by cutting through smaller neighbourhood streets.	Access to: • the community centre from southbound Denman St. and • to the neighbourhood west of Denman St. from northbound Denman St. would no longer be possible.
Vehicle pick-up/ drop-off	Addition of a loading zone on south side of the street.	No changes ('No parking' zone remains on south side of the street, which allows stopping up to 5 min to load passengers or materials)
Parking	Parking switched to the south side of the street; removal of approximately 8 parking spaces	No changes (Parking remains on north side of the street)

8. DESIGN OPTIONS

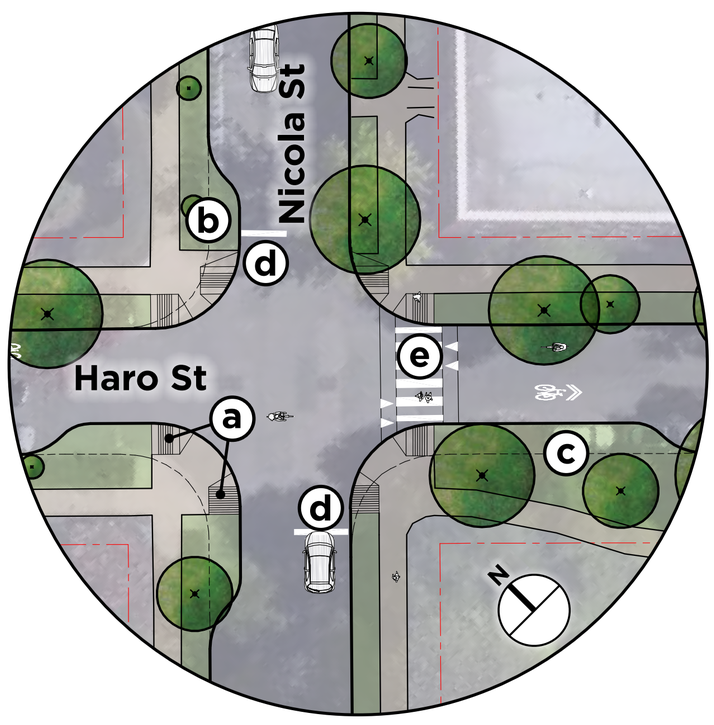
Haro Street Bikeway | Haro and Bute Infrastructure Upgrades

Area 2 - Mid-Haro Intersections

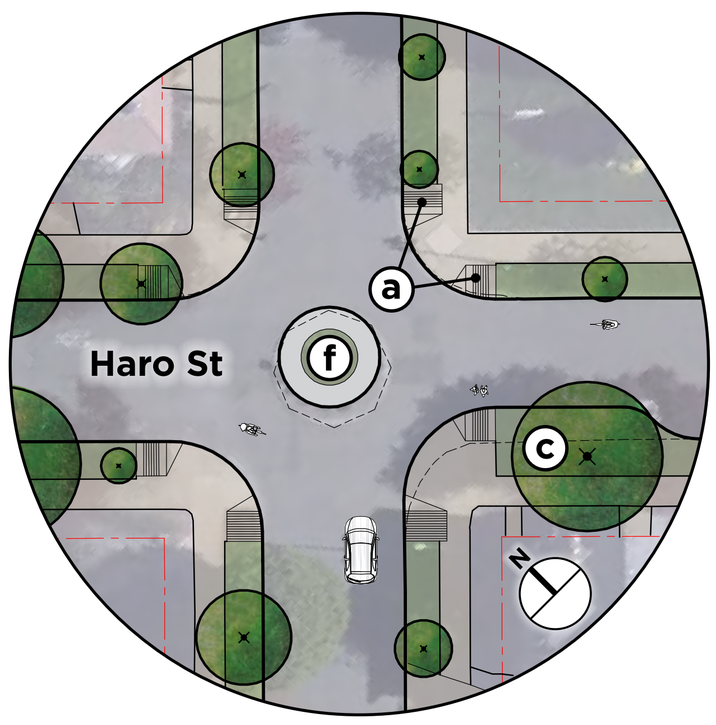
The intersection at Haro St. and Nicola St. will receive new corner bulges as part of the new design. However, at Broughton St. and Jervis St., existing traffic circles will need to be removed as part of the water main replacement work. When the street is reconstructed, there is an option to install either a new traffic circle or curb bulges with raised crosswalks at these locations, but we recommend curb bulges for safety and accessibility reasons as described below.



Option 1 (Curb bulges)



Option 2 (Traffic circles)



- (a) Accessible curb ramps
- (b) Regular curb bulge
- (c) Curb bulge with green rainwater infrastructure*
- (d) Two-way stop sign
- (e) Raised crosswalk
- (f) Traffic circle (smaller than existing)

How the options affect:	Option 1 (Recommended) (curb bulges)	Option 2 (traffic circle)
Accessibility	Curb bulges on each corner reduce the distance required to cross the street, making it safer for people walking, and especially for those who walk more slowly; Raised crosswalks make it easier for wheelchairs to roll across the street.	Similar to current condition except for one curb bulge that reduces the distance required to cross the street.
Clarity of intersection control	2-way stop signs make clear who should proceed first through the intersection.	If vehicles and/or bicycles arrive at the intersection at the same time, the one on the right has the right of way, but this is often not well understood.
Visibility and sight lines	Curb bulges and setback of parked cars provide better sight lines between oncoming vehicles and people cycling or walking; raised crosswalks provide greater visibility of small children.	Vegetation in the traffic circle may obscure sight lines of people crossing the street, especially small children or people in wheelchairs or scooters.
Traffic calming (vehicle speed)	Raised crosswalks act like speed humps, and placed on the higher side of the intersection to slow vehicles travelling downhill.	Vehicles tend to slow down at traffic circles.
Parking	Requires removal of 1-2 parking spaces per intersection to improve sightlines.	Requires removal of 1-2 parking spaces per intersection to improve sightlines.
Green rainwater infrastructure*	More curb bulges provide room to plant vegetation and install green rainwater infrastructure.	One curb bulge provides room to plant vegetation and install green infrastructure.

* **Please see presentation board #10 for more information about green rainwater infrastructure.**

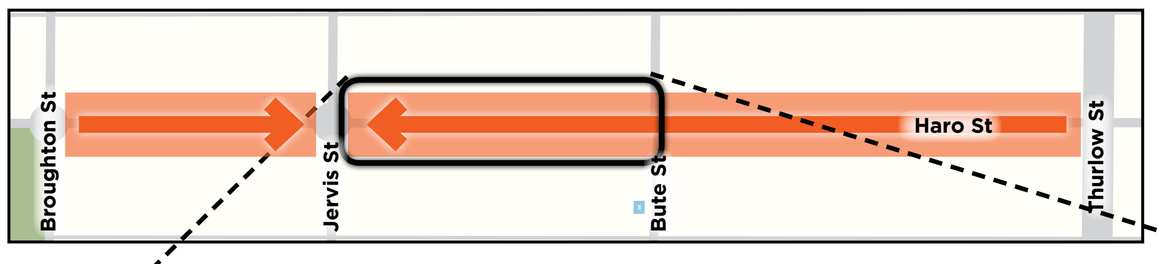
9. DESIGN OPTIONS

Haro Street Bikeway | Haro and Bute Infrastructure Upgrades

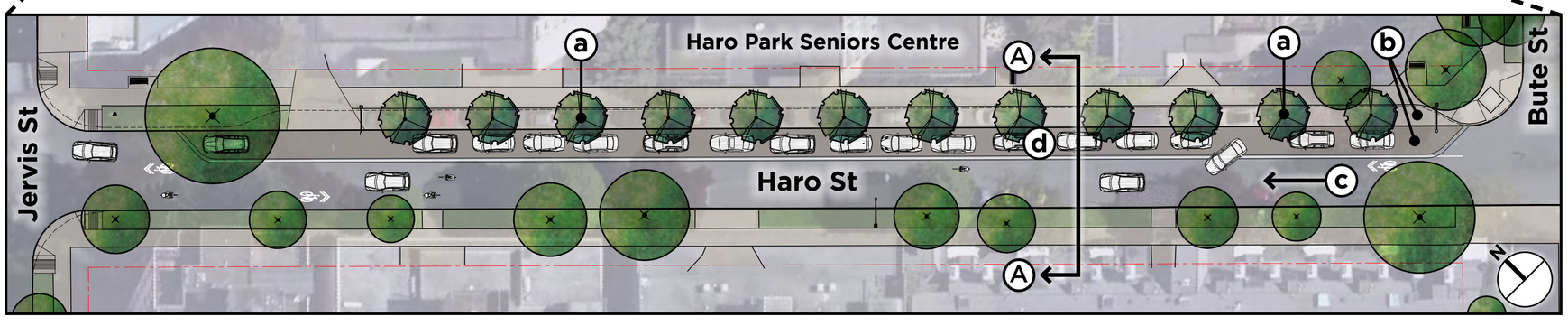
Area 3 - East Haro

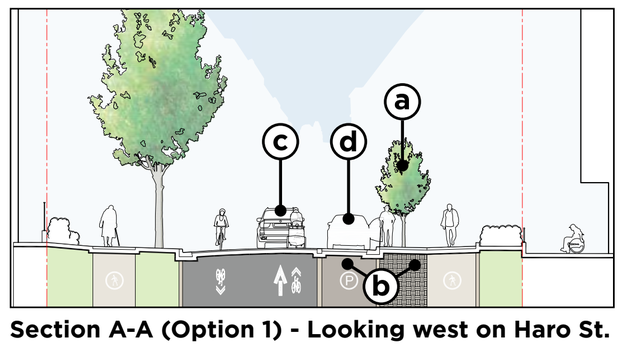
One-way vehicle traffic, converging at Jervis St.

The three-block stretch from Broughton St. to Thurlow St. has the highest motor vehicle volumes along the Haro Street Bikeway, and is frequented by a lot of seniors. The one-way motor vehicle pattern proposed would lower these volumes by preventing shortcutting while still allowing access to the neighbourhood and pick-up/drop-off at Haro Park Centre. Bicycles would continue to travel in both directions and share the road with motor vehicles.



Option 1 (New trees and green rainwater infrastructure, one side of parking)

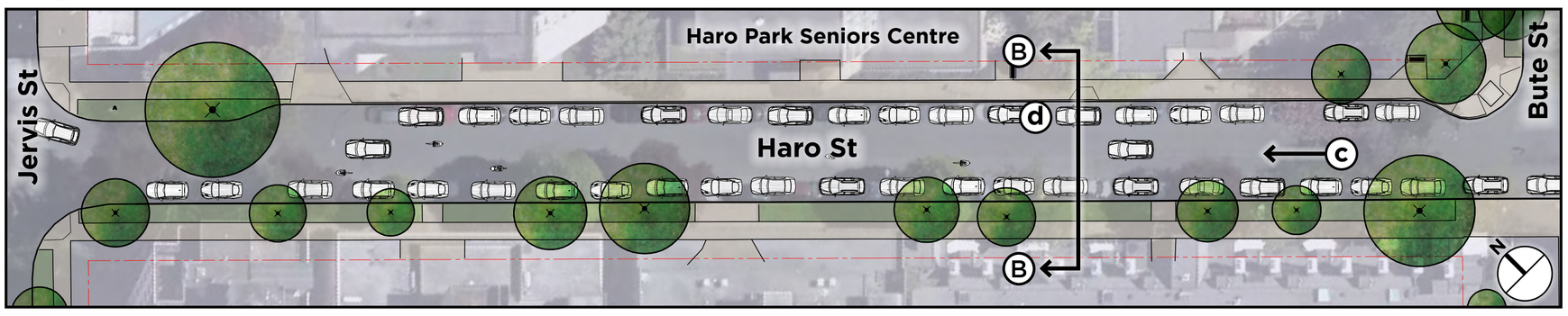


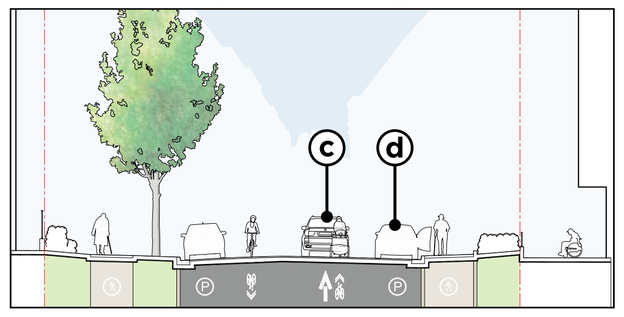


Section A-A (Option 1) - Looking west on Haro St.

- **a** New trees on north side (to match the rest of Haro St.)
- **b** New green rainwater infrastructure*
- **c** One-way vehicles westbound
- **d** Passenger zone retained

Option 2 (No new trees or green rainwater infrastructure, two sides of parking)





Section B-B (Option 2) - Looking west on Haro St.

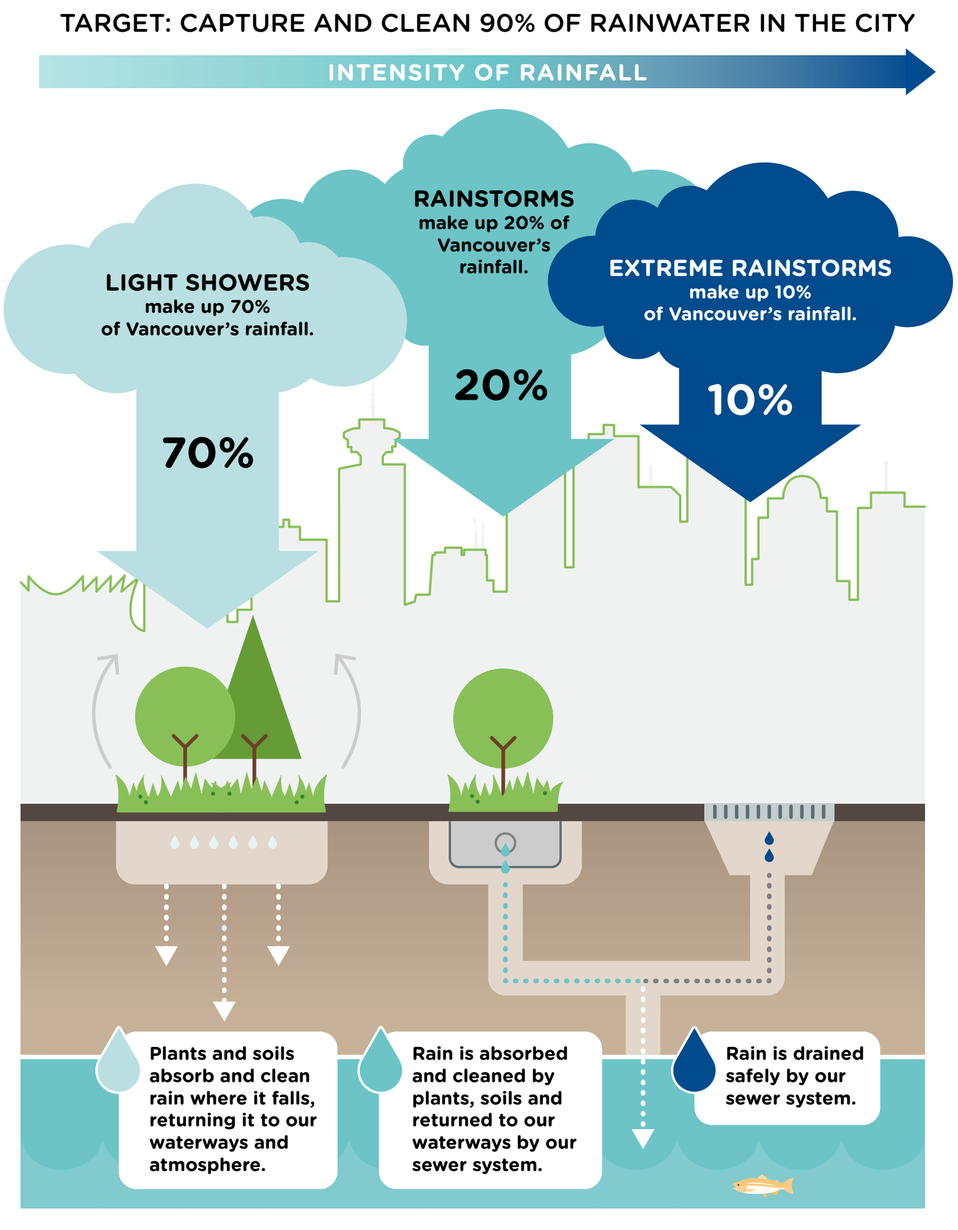
How the options affect:	Option 1 (Recommended) (new trees and green rainwater infrastructure, one side of parking)	Option 2 (no new trees or green rainwater infrastructure, two sides of parking)
Pedestrian realm	New trees improve the walking experience and provide shade for seniors outside Haro Park Centre.	No changes; North side of the street remains the only block along Haro St. that does not have trees.
Green rainwater infrastructure*	New trees enable water to evaporate back into the atmosphere; Permeable pavers under parked cars enable water to infiltrate to the ground below	No changes (water continues to run off the road surface to sewer pipes underground)
Vehicle pick-up/ drop-off	One-way westbound traffic allows HandiDART and other vehicles to continue stopping outside Haro Park Centre to pick up passengers	One-way westbound traffic allows HandiDART and other vehicles to continue stopping outside Haro Park Centre to pick up passengers
Parking	Removal of parking on south side (approximately 22 spaces)	No parking removed; Parking on the left side of the road would be more difficult for people driving since it's not a common configuration.
Potential for conflict (between people cycling and driving)	One side of parking means the chance of 'dooring' (collision between a bicycle and a car door) is limited to the north side of the street; Conventional parking on the right side makes it easier for people driving to spot bicycles when pulling in or out of parking	Two sides of parking means the chance of 'dooring' is possible on both sides of the street and there is less space for vehicles and bicycles to pass each other; Parking on the left side limits visibility of oncoming bicycles

* **Please see presentation board #10 for more information about green rainwater infrastructure.**

10. RAINWATER MANAGEMENT

Haro Street Bikeway | Haro and Bute Infrastructure Upgrades

Green Rainwater Infrastructure



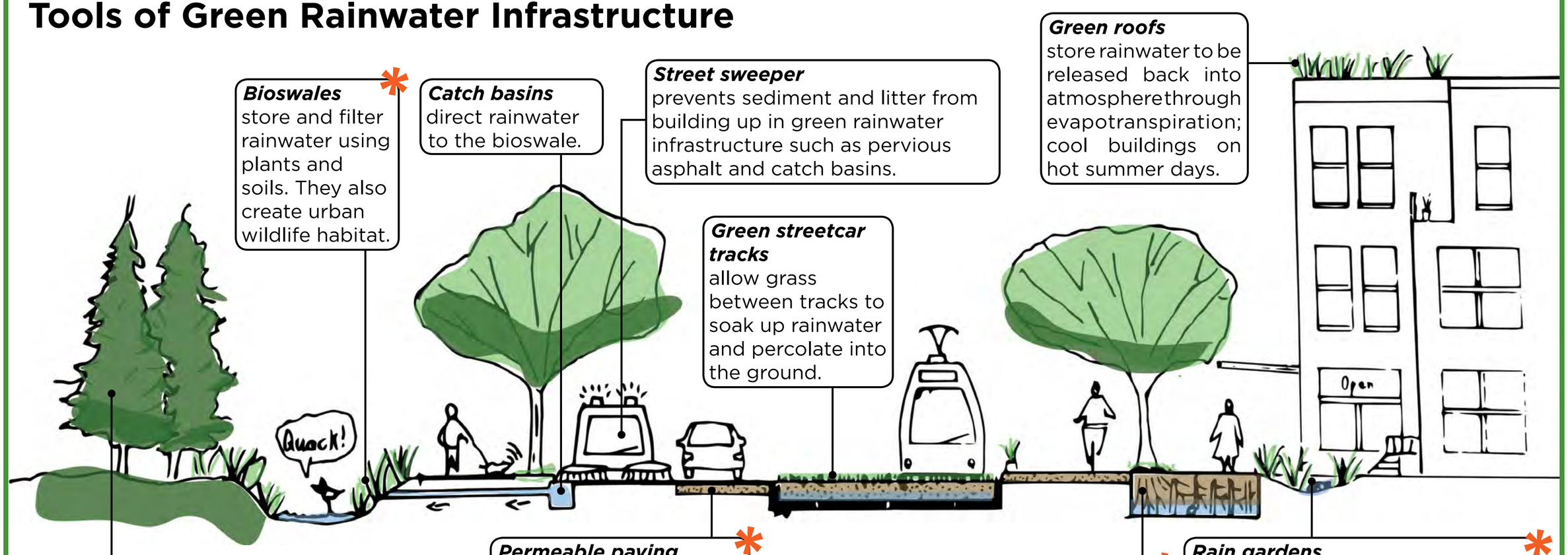
When a street is reconstructed, it provides an opportunity to incorporate green rainwater infrastructure, which would reduce rainwater pollution, improve the way water is managed and introduce more green space into the neighbourhood.

What is Green Rainwater Infrastructure?

Green rainwater infrastructure is an approach to urban water management that protects, restores, or mimics the natural water cycle. It uses soils, plants, trees, and built structures such as green roofs, bioswales and rain gardens to capture, store, and clean rainwater before returning it to our groundwater, atmosphere or waterways. It increases the city's resilience to climate change, and supports neighbourhood livability and biodiversity.

How do we work towards capturing and cleaning 90% of the city's annual rainfall?

Tools of Green Rainwater Infrastructure



Bioswales store and filter rainwater using plants and soils. They also create urban wildlife habitat. *

Catch basins direct rainwater to the bioswale.

Street sweeper prevents sediment and litter from building up in green rainwater infrastructure such as pervious asphalt and catch basins.

Green roofs store rainwater to be released back into atmosphere through evapotranspiration; cool buildings on hot summer days.

Green streetcar tracks allow grass between tracks to soak up rainwater and percolate into the ground.

Parks and trees pump water into the atmosphere through evapotranspiration. *

Permeable paving percolates water into the ground; prevent pooling, black ice, and overloading of the sewer and drainage system. *

Rainwater tree trenches support sidewalks above and provide space for tree roots, soils, and under drains to store, treat, and infiltrate water. *

Rain gardens collect urban rainwater from downspouts and use vegetation to store, filter, and infiltrate water; drains prevent flooding and prolonged pooling. *

***New infrastructure considered for the Haro Street Bikeway.**

Pervious concrete

Permeable paving

Porous bike path

Rain garden

Soil cell rainwater tree trench

11. NEXT STEPS

Haro Street Bikeway | Haro and Bute Infrastructure Upgrades

What's happening next?

Fall 2019

City staff will consider all the feedback received from local businesses, stakeholders, residents and the public to develop a final recommended design in more detail.

Spring 2020

The City will share a final recommended design and collect feedback from the public, which will be used to refine the design prior to construction.

TBD 2020

The Haro Street Bikeway Improvements will be constructed after the West End water main replacement is completed.

Tell us what you think!

Fill out a survey at today's open house, and drop it off at the sign-in table or mail it back to us.

Complete an online survey at **vancouver.ca/harobuteupgrades**

Call **3-1-1 (T-T-Y 7-1-1)**

Email us at **harobuteupgrades@vancouver.ca**

Please submit feedback by October 15, 2019.

Join our mailing list

If you'd like to stay updated on all the developments happening on the Haro Street Bikeway, please sign up for our email list online at **vancouver.ca/harobuteupgrades**.