



CONSTRUCTION ON BICYCLE ROUTES

GUIDE 2020

Supplement to the British Columbia Ministry of Transportation and Infrastructure's 2015 Traffic Management Manual for Work on Roadways

This is a reference guide for private contractors and City of Vancouver crews with planned construction in the City of Vancouver on a designated cycling route.

Cyclists in Construction Zones

People cycling, skateboarding and rollerblading are found on the City's bicycle routes and should be safely accommodated through or around work zones. People using bicycle routes are vulnerable road users who have little protection from falls and collisions. Specific care and attention is necessary for construction on bicycle routes.

Step 1: Identify Existing Bike Facilities

The City's cycling network consists of several route types. The first step in addressing safety on cycling routes is to identify existing bike facilities within your work zone. Please refer to the City's Cycling Map (found on the back page of this brochure) to identify these facilities:

- **Protected Bike Lanes and Off-Street Paths** – People cycling are protected from motor vehicles by a physical barrier and have separate space from pedestrians.
- **Shared Pedestrian and Cyclist Pathway** – These shared paths are marked with a bike and pedestrian symbol
- **Local Street Bikeways** – People cycling share the roadway with motor vehicles on low volume traffic calmed local streets.
- **Painted Bike Lanes** – A painted bike lane typically located between a parking lane and a moving vehicle lane, or between a sidewalk and moving vehicle lane.
- **Shared Travel Lane** – A relatively busy general travel lane with symbols indicating the position for a person biking.

AAA Cycling Network – Vancouver's cycling routes consist of a core network of protected bike lanes, pathways, and traffic calmed local streets. These routes serve people of All-Ages-and-Abilities (AAA) and have higher bike volumes requiring specific care and attention.

Mobi by Shaw Go Bike Share Station –

If a bike share station (mobibikes.ca) is located in your work area please contact publicbikeshare@vancouver.ca at least seven days before construction.

Step 2: Field Review and Context

After identifying existing bike facilities within your work zone, conduct a field review to understand facility characteristics and identify potential hazards. Examples of factors to observe and consider include:

- Bike volumes during expected work hours and after work hours. Consider what can be maintained during work hours versus after work hours
- Remaining road width – consider if there is space for a temporary bike provision
- Hazards on the road surface such as loose gravel and uneven surfaces
- Pedestrian and vehicle volumes – consider potential conflicts that may arise

Step 3: Choose a Temporary Measure

Priority should be given to maintain bike facilities. Consider reducing construction impacts or phasing work to maintain cycling. If after gathering information from Step 1 and 2, you have determined that you cannot maintain existing facilities, please use the City's Temporary Measures for Work on Bicycle Routes Table to choose a temporary measure for your work zone.

Width Requirements

To select a temporary measure, consider the City's width requirements:

- Pedestrian provision – 1.8 metres
- Bicycle provision one-way – 1.5 metres
- Bicycle provision two-way – 3 metres
- Shared pedestrian/bicycle provision – case-by-case basis, review with the City's Traffic & Data Management Branch

TEMPORARY MEASURES FOR CONSTRUCTION ON BICYCLE ROUTES

Temporary measures should be prioritized as per the order listed in the table below.

HIGHEST PREFERENCE



LOWEST PREFERENCE



Temporary Measure	Location Requirements	Description and Implementation Considerations
Bicycle Provision	<ul style="list-style-type: none"> Used on any type of bicycle facility Consider where parking or a vehicle travel lane can be used to make space for a bicycle provision 	<ul style="list-style-type: none"> Delineators or barricades are used to create a temporary bike lane A “Lane Closure Arrow” sign (C-053) should be used where bicycle traffic is being shifted from the existing bicycle facility into the bicycle provision A “Bike Lane Closed Ahead” sign should be placed in advance of the bicycle provision
Bicycle Lane Closed - Take/Share the Lane	<ul style="list-style-type: none"> Used on painted bike lanes Used when a bicycle provision cannot be maintained and bike volumes are relatively low 	<ul style="list-style-type: none"> A “Take the Lane” sign (C-184) or a City of Vancouver “Share the Lane” sign should be placed in advance of the lane closure taper A “Bike Lane Closed Ahead” sign should be placed in advance of the “Take/Share the Lane” sign A “Share the Road” (W-132-1) sign should not be used in the City of Vancouver
Single Lane Alternating Bicycle Traffic (SLAT)	<ul style="list-style-type: none"> Used on two-way bike routes Used when the road width is sufficient to maintain a one-way bicycle provision (1.5 metres) but not sufficient to maintain a two-way bicycle provision (3.0 metres) 	<ul style="list-style-type: none"> Two TCP’s are required to perform SLAT for bikes and should be positioned on either side of the bicycle provision If a directional closure is used for vehicles and single lane alternating is used for bicycles, the “Single Lane Traffic” sign (C-030-8) should not be used to warn bicycles
Bicycle Route Closed - Dismount and Walk	<ul style="list-style-type: none"> Used on any type of bicycle facility Bike volumes are low to medium Used when the road width is not sufficient to maintain cyclists through the work zone A sidewalk or walking path is present with relatively low pedestrian volumes 	<ul style="list-style-type: none"> Dismount and walk should be reviewed by the City’s Traffic & Data Management Branch May be preferable to a bicycle detour if the closure length is relatively short A “Walk Bicycle” sign (B-R-101-2) with an “On Sidewalk” tab (B-R-101-Tc) or a City of Vancouver “Bicycle Dismount Walk on Sidewalk” sign should be placed at the beginning of the area where cyclists shall walk A City of Vancouver “Bicycle Lane Closed Ahead” sign should be placed in advance of the closure and a “Bicycle Lane Closed” sign (B-C-002) should be placed at the closure Temporary fixed-in-place ramps with a tactile surface on either side of the construction zone should be used to minimize the length cyclists will be on the sidewalk
Bicycle Detour Routes	<ul style="list-style-type: none"> Used on any type of bicycle facility Used when the road width is not sufficient to maintain cyclists through the work zone Where bike volumes are high and walking bikes on sidewalks is not practical 	<ul style="list-style-type: none"> Bicycle detour routes should be reviewed by the City’s Traffic & Data Management Branch “Bicycle Detour” signs (B-C-004) and “Lane Closed” signs (B-C-002) are required, as shown in Figure 18.5 of the <i>MoTI Traffic Management Manual for Work on Roadways</i> Whenever possible restore a bike provision on the roadway at the end of the work day and cover detour signage at the decision point Detours in which cyclists have to make left turns or cross arterial roadways without a signal or push-button crosswalk should be minimized

REVIEW WITH THE CITY’S TRAFFIC & DATA MANAGEMENT BRANCH

An “Except Bikes” tab (WA-145S-1) should be used on all vehicle “Road Closed” signs

PAVEMENT MARKINGS

Bicycle
Indicates a bicycle route or lane.

Special Reserved Lane
Indicates a reserved lane for the devices noted on associated signs or pavement markings. When combined with a bicycle this symbol indicates a dedicated bicycle lane. People cycling in the City of Vancouver are allowed to ride in these lanes.

Sharrows (Shared Roadway)
Indicates a roadway shared with motor vehicles. The arrow shows where people cycling should generally position themselves.

Bicycle with Arrow
Indicates the bike route direction is changing.

Bicycle Pathway
Indicates an off-street cycling pathway.

Shared Pathway
Indicates an off-street pathway shared by people walking and cycling.

Crossbike (Elephant's Feet)
Identifies the area where people biking may be crossing to provide wayfinding along protected bike lanes at intersections.

Green Paint
Highlights potential conflict areas with motor vehicles. Commonly used along protected bike lanes at intersections and driveways.

Bicycle Box
Indicates where people cycling should position themselves at a red signal, allowing them to turn left, right, or go straight in advance of other vehicles.

Bicycle Signal
Dedicated signal for people biking. Follow these signals as they indicate when it is safe to cross by bike and often eliminate conflicts with turning vehicles.

Turning Left Using a Bike Box
1) Go straight through the intersection when the signal is green and wait in the turn box.
2) Proceed left across the intersection when the signal changes.

MOST COMFORTABLE
↑
↓
LEAST COMFORTABLE

PROTECTED BIKE LANE

People cycling are protected from motor vehicles by physical barriers such as planters, curbs, or bollards; also includes off-street paths



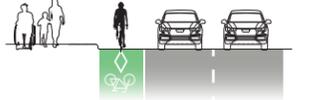
LOCAL STREET BIKEWAY

People cycling share the roadway with motor vehicles on a relatively quiet neighbourhood street



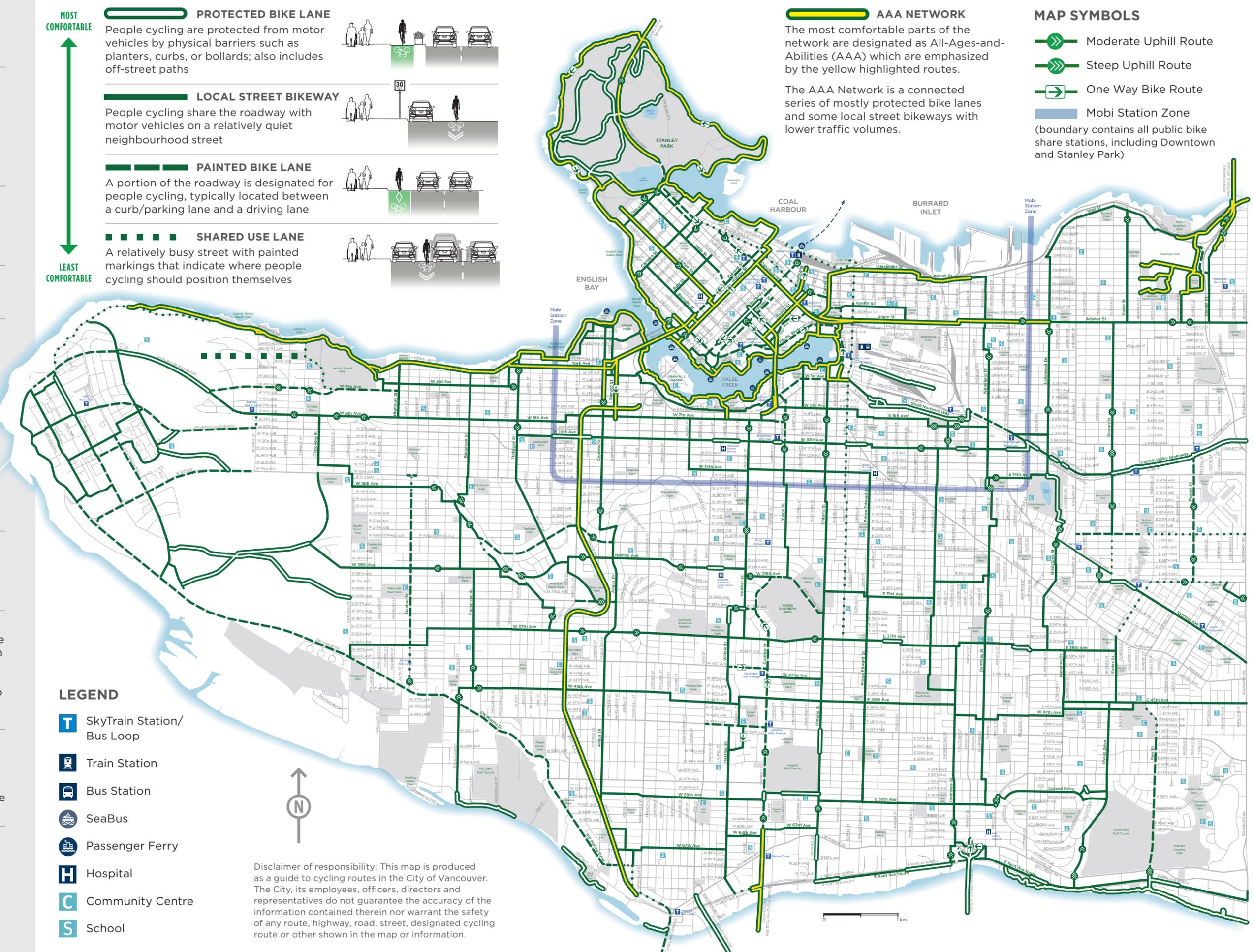
PAINTED BIKE LANE

A portion of the roadway is designated for people cycling, typically located between a curb/parking lane and a driving lane



SHARED USE LANE

A relatively busy street with painted markings that indicate where people cycling should position themselves



AAA NETWORK

The most comfortable parts of the network are designated as All-Ages-and-Abilities (AAA) which are emphasized by the yellow highlighted routes.

The AAA Network is a connected series of mostly protected bike lanes and some local street bikeways with lower traffic volumes.

MAP SYMBOLS

- Moderate Uphill Route
- Steep Uphill Route
- One Way Bike Route
- Mobi Station Zone
(boundary contains all public bike share stations, including Downtown and Stanley Park)

LEGEND

- SkyTrain Station/Bus Loop
- Train Station
- Bus Station
- SeaBus
- Passenger Ferry
- Hospital
- Community Centre
- School

Disclaimer of responsibility: This map is produced as a guide to cycling routes in the City of Vancouver. The City, its employees, officers, directors and representatives do not guarantee the accuracy of the information contained therein nor warrant the safety of any route, highway, road, street, designated cycling route or other shown in the map or information.