



CASE STUDY

Vancouver | Cycling Infrastructure

Cycling as a Way of Life

On its route to achieving bike-friendly status, Vancouver has successfully dealt with challenges such as bikelash and climate change. Its secret? An inclusive design blueprint catering to all ages and abilities, known as “Triple A”.

The Challenge

In 1996, the Vancouver City Council proposed to convert one of the car lanes along Burrard Bridge into a bike lane. What was intended as a six-month trial lasted only a week.

Marked by just traffic cones and police tape, the lane did not inspire confidence as a safety barrier. Traffic clogged the roads upon the lane’s opening, providing additional fodder for bikelash—hostility towards cyclists due to the increased presence of bicycles on streets.

The increasing popularity of cycling meant that the safety of both cyclists and motorists had become a crucial issue for the city. In 2005, another proposal for a separated bike lane along Burrard Bridge

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made its way to the city council and was rejected for fear of a repeat of the negative public reaction of 1996.

At the same time, reducing car emissions was becoming a bigger issue because of the increasing awareness of climate change. For policymakers, this posed a challenge and an opportunity: accounting for the health of residents as well as the environment.



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Cyclists participating in the June 2007 Critical Mass bike ride in Vancouver to promote safe urban bike use and push for more bike lanes.





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The Solution

In 2008, Burrard Bridge became the focus of attention again, when then-Mayor Gregor Robertson proposed replacing a car lane with a protected bike lane. Critics predicted this would lead to traffic congestion and public unhappiness.

These fears did not materialise when the bike lane officially opened in 2009. There was smooth traffic flow and no significant incidents of bikelash. Tracing the evolution of the bridge, urban media outlet CityLab attributed its success to a “smarter bike lane plan”.

Instead of closing an inbound car lane or two like in previous proposals, the new plan converted a single outbound car lane into a bike lane. Mayor Robertson’s plan also turned one of the two pedestrian lanes on each side of the bridge into a bike lane, meaning that remaining foot traffic converged into one lane. A sturdy barricade, instead of cones, separated cyclists from motorists and pedestrians.

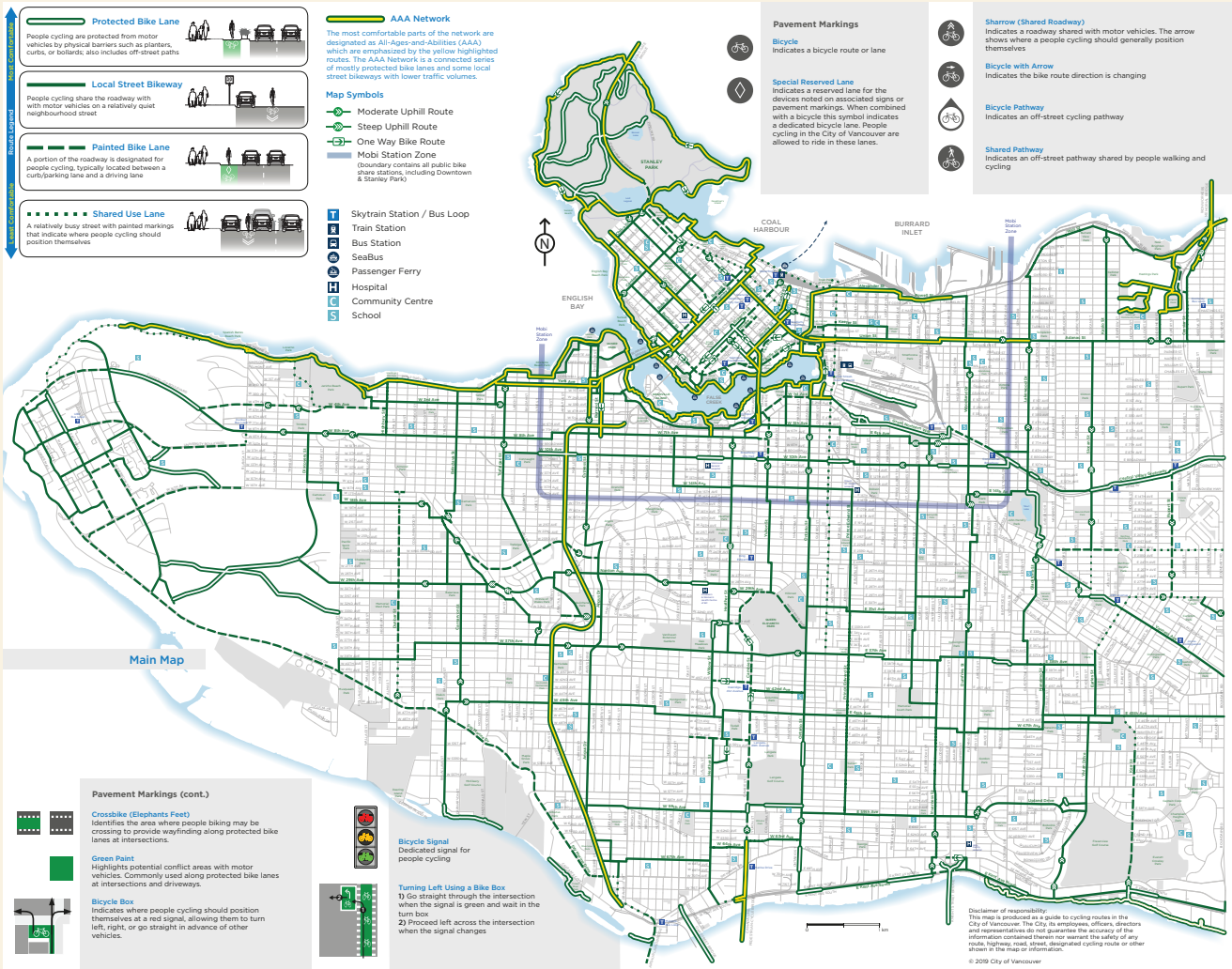
Nevertheless, the city had to deal with unforeseen issues, such as cars getting

in the way of cyclists at an intersection connecting to the downtown core. In 2017, the city reworked the intersection as part of a C\$35 million (S\$36.5 million) upgrade.

These infrastructure changes have proceeded in tandem with the city’s “all ages and abilities” design principle, also known as “Triple A”. This means making cycling safe and convenient for everyone, from children to seniors.

Traditional cycling facilities, like shared use lanes on major streets, tend to appeal to people who are comfortable travelling in traffic. However, as noted in the city’s official design guidelines from 2017, “bikeways on quiet streets, protected bike lanes and off-street pathways appeal to people who are interested in cycling but concerned for their safety”.

01 On Burrard Bridge, a barricaded bike lane was installed to separate traffic and protect the safety of pedestrians, cyclists and motorists.



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The guidelines also note the usefulness of landscaping and urban design elements as “traffic calming measures”. This connects with the other aspect of Vancouver’s cycling plan: sustainability.

In 2011, Vancouver launched its Greenest City Action Plan to create “compact neighborhoods with higher density to provide easy access to work, shopping and recreation”, making it easier to do away with cars. The city introduced natural elements along the streets to create a pleasant and inviting cycling experience for cyclists. For instance, streets were built with

integrated rainwater management systems for growing trees. Rain gardens were constructed to collect run-off from surrounding streets along 63rd Avenue and Yukon Street Plaza.

Explaining the thinking behind this, the city’s green infrastructure planner Cameron Owen told the Sightline Institute: “We want to make it so that every time we build a street [or] add a bike lane...we look for the opportunity to put in a rain garden, tree trench or structural soils that collect water and support tree growth.”

01 The City of Vancouver provides an annual cycling and guiding map that details all bikeways and greenways for people of all ages and abilities.



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Together with these policy changes, non-government actors have also done their part to promote cycling as a healthy and sustainable mode of transportation. In 2007, Mia Kohout, the editor of cycling publication *Momentum Mag*, launched Bike to Work Week.

The event, advocating for residents to cycle to work, attracted over 1,000 new cyclists in its inaugural year, according to community newspaper *Vancouver Courier*. It has since become a popular annual event for businesses to show their support for cycling culture and infrastructure.

“The city introduced natural elements along the streets to create a pleasant and inviting cycling experience for cyclists.”

02 Cyclists riding on the dedicated bike lanes, which help to reduce road danger in Vancouver.



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The Outcome

Today, Burrard Bridge sees more than one million bike crossings a year, and is one of the busiest bike lanes in North America.

Business leader and critic-turned-supporter of cycling Charles Gauthier told *CBC News* in 2019: “We couldn’t have predicted how popular cycling would become if you made it safer for people.”

Cycling initiatives have received added impetus since the city published the Climate Emergency Report in early 2019 to tackle climate change. The report builds

on the city’s ongoing transportation goals. One of Vancouver’s goals is for two-thirds of trips to be completed by active transportation by 2030. It is an ambitious but fitting aim considering that in 2017, three years ahead of a previous goal, 50% of trips in Vancouver were from active transportation.

For cities worried about bikelash when implementing transportation and sustainability initiatives, Vancouver has shown that designing for safety and inclusivity can make all the difference. 

“One of Vancouver’s goals is for two-thirds of trips to be completed by active transportation by 2030.”



01 The scenic Stanley Park offers cyclists an enjoyable cycling experience in downtown Vancouver.

02 The separated bike lanes along Dunsmuir Street allow riders to commute safely during rush hour.