

CLIMATE CAUCUS **HANDBOOK**

A Toolkit for Local Electeds Climate Action

Transit Improvement and Priority Measures

A part of the [Public Transit Handbook Section](#)



Stay tuned for the up-to-date version of this resource!

This document is undergoing fact checks and updates... you will be able to access the new version in September 2025.

Transit priority measures give buses preferential treatment over other vehicles, increasing transit speed, while reducing GHGs and transit costs. Other transit improvements to increase comfort and safety can also increase ridership.

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Possible Initiatives

*Resource expertise level:

 Green = beginner	 Blue = intermediate
 Black = advanced	 Double black = expert

****Climate Caucus has ranked the following initiatives from beginner to expert, based on Complexity to implement, Staff time & expertise, and Political capital. Please note, these rankings are our own best judgements.*

Add Bus Lanes



The Basics:

- Bus lanes, or dedicated transit lanes, are road lanes solely for public transit use.
- In areas with lots of traffic, **bus lanes minimize delays from congestion and traffic signals, decrease public transportation costs, reduce GHG emissions from idling, and increase public transit reliability.**
- Connect with your local transit authority to see where they recommend adding bus lanes, then ask your local planning staff to work with you on a motion to enact those measures.
- Some important bus lanes are on provincial highways, including arterial roads in cities that don't look like highways. Getting bus lanes on provincial highways requires lobbying, sometimes in collaboration with civil society groups (e.g. transit advocacy or environmental groups).

Examples:

- [Bus Lane Implementation Plan, City of Toronto \(2020\)](#), ON
- [Lewes Boulevard Bus Lane Study, City of Whitehorse](#), YT
- [Robie Street/Young Street, City of Halifax](#), NS
- [King Street, City of Hamilton](#), ON
- [Bus Priority Projects, City of Vancouver](#), BC

- Zurich Switzerland has one of the [best networks of bus lanes and signal priority](#) in the world.

Case study - City of Victoria, BC

[Bus Lanes in Greater Victoria](#), developed in collaboration between the City of Victoria, BC Transit and the BC Ministry of Transportation and Infrastructure, is decreasing transit travel time by up to 10 minutes & one expert says they have seen priority lanes [increase public transit ridership by up to 30%](#).

Resources:

- [City of Ottawa - Transit Priority Program: Putting Buses First](#)
- [NACTO - Shared- Use Bus Priority Lanes on City Streets](#)
- [NACTO - Dedicated Curbside/Offset Bus Lanes](#)
- [Dynamic Bus Lanes Versus Exclusive Bus Lanes: Comprehensive Comparative Analysis of Urban Corridor Performance](#)
- [NACTO - Tiered Transit Street](#)

Add in Peak-Only Bus Lanes



The Basics:

- **Peak Only Bus Lanes are a good alternative for streets with limited space and that experience high transit demand at peak commute times.**
 - A peak-only bus lane can operate as a dedicated bus lane at peak travel periods and provide general curbside uses or mixed traffic at other times.
 - Wider lanes can enable an effective bicycle lane off-peak adjacent to parking.
- However, peak period only bus lanes can be confusing and difficult to enforce unless expensive digital signage is installed. 24/7 bus lanes are generally the preferred option.

Examples:

- [Gottingen Street, City of Halifax](#), NS
 - [Council Meeting](#)
- [Burrard Street, City of Vancouver](#), BC

Resources:

- [NACTO - Peak-Only Bus Lane](#)

Add Transit Signal Priority



The Basics:

- Transit Signal Priority (TSP) tools modify traffic signals by holding green lights longer or shortening red lights for transit vehicles to **reduce dwell time at traffic signals**.
- TSP can be a powerful tool to improve transit reliability and travel time, especially on streets with long signal cycles and distances between signals.
- TSP benefits are amplified with dedicated bus lanes.
- Most TSP use “Candlestick” traffic lights to indicate when buses can go.



Examples:

- [City of Montreal](#), QC
- [Transit Signal Priority Impact Analysis and Evaluation in the City of Edmonton](#), AB

Resources:

- [NACTO - Active Transit Signal Priority](#)
- [Transit Signal Priority \(TSP\): A Planning and Implementation Handbook](#)
- [NACTO - Transit Signal Progression](#)

Increase Frequency



The Basics:

- Increasing frequency is key to a reliable public transit network.
- There are 3 categories of frequency according to the NACTO Transit Street Design Guide:

- **Low volume:** Over 15 minutes headways, 4 or fewer buses per hour, typically fewer than 100 passengers per hour
- **Moderate volume:** 10-15 minute or shorter headways, generally 5-10 at peak, 4-10 buses per hour, 100-750 passengers per hour
- **High Volume:** 2-6 minute headways, 10-30 buses per hour, 500-2,000 passengers per hour
- Ridership and volume of transit vehicles determines frequency of standard buses on a route.
- Frequency of transit should align with population density and demand.

Examples:

- [City of Calgary, AB](#)
- [Region of Waterloo, ON](#)
- [City of Montreal, QC](#)

Resources:

- [NACTO - Transit Frequency and Volume](#)
- [Transit Action Alliance of Guelph - Why High-Frequency is the way to go](#)

Provide Real-Time Bus Arrival and/or Location information



The Basics:

- Providing real-time data **increases rider satisfaction with wait times.**
- Information on current arrival and departure times allows users to smoothly plan their trips. For example, in the case of a delay, a rider could be relieved to know that they can stay home a little longer.
- Riders generally access this information through electronic signage at stops, a web page, texting or calling a number, or through an app.

Examples:

- [Real-time data, City of Toronto, ON](#)
- [Real-time Location, York Region Transit, ON](#)
- [Real Time Transit, City of Sault Ste. Marie, ON](#)
- [GTFS Realtime, TransLink, Metro Vancouver BC](#)

Resources:

- [NACTO - Passenger Information and Wayfinding](#)

- [Where is my bus? Impacts of mobile real-time information on perceived and actual wait time of transit riders](#)
 - Study found that for riders without real-time information, perceived wait time is greater than measured wait time, while riders using real time information do not perceive their wait time to be longer than it is.

Improve Bus Ticketing



The Basics:

- Streamlined ticketing systems are essential for transportation efficiency. On-board cash payment is time-consuming and should be discouraged.
- Touchless and digitized payment systems receive positive reviews such as RFID Cards, bank cards, and mobile apps.
 - Radio Frequency ID (RFID) Cards tapped at a reader reduces boarding times. RFID readers are placed at door entrances or off-board at stops.
 - Some readers are being updated to take debit or credit cards, or mobile wallet.
 - Mobile App ticket purchase may require scanning or may be instantly valid.
- Generally drivers and transit staff ensure that fares are paid.

Examples:

- [City of Ottawa](#), ON
- [Metrolinx](#), ON
 - Includes GO Transit, UP Express, Brampton Transit, Burlington Transit, Durham Region Transit, Hamilton Street Railway, MiWay in Mississauga, Oakville Transit, York Region Transit and Para Transpo in Ottawa.
- [TransLink](#), City of Vancouver, BC
- [Umo, BC Transit](#)
- [Mobile Ticketing](#), Saskatoon, SK
- [City of Fredericton](#), NB

Resources:

- [NACTO, Fares and Boarding, Transit Street Design Guide](#)
- [CUTA, Re-Attracting Customers Through Fare Policy](#)

Create energy-efficient Bus Storage Facilities



The Basics:

- As many cities project population growth, increased bus storage capacity is required to keep up with growing demand.
- These new facilities should be energy efficient and include infrastructure for zero-emission buses.

Examples:

- [Brandon Garage](#) - City of Winnipeg, MB
- [Ragged Lake Transit Centre Expansion](#) - City of Halifax, NS

Increase Cleanliness, Comfort and Safety



The Basics:

Cleanliness

- Since the pandemic, public transit can feel like a less safe transportation option.
- In order to promote the safety of passengers transit can consider enhancing cleaning schedules and increasing frequency to mitigate crowding.

Comfort

- A [2018 literature review](#) on public transit satisfaction found that one of the top factors for overall satisfaction in public transit is comfort.
- A smoother, quieter bus can reduce stress and attract riders, which zero-emission buses earn high marks in.
- Having staff positioned at popular public transit stations to help customers, answer questions, and watch for potential safety issues can increase comfort for most riders.

Safety

- Keep first aid kits, defibrillators and naloxone kits at transit stations.
- If there are bathrooms in your transit hub, have a secure needle drop box.
- Ensure your transit system follows the Accessible Canada Act.
- Have transit shelters on highway transit stops and barriers to prevent pedestrian road access.

Examples:

- [City of Montreal](#), QC
- [City of Toronto](#), ON - Safety
- [BC Transit](#) - Cleanliness
- [BC Transit](#) - Safety

Have Trained Social Service Providers at Transit Hubs



The Basics:

- Due to the lack of accessible public space people experiencing homelessness can find refuge in transit stations. Public transit staff should be trained to respond to individuals with mental health and substance-use issues. **Transit systems should consider having mental health outreach personnel.**
 - [The Canadian Urban Transit Association \(CUTA\)](#) recommends that provincial governments fund overnight access and intake to social service providers, safe injection sites, warming centres, and cooling centres so that people requiring support avoid sheltering in place on transit systems.
- There is the opportunity for transit agencies to partner with mental health service providers and position outreach workers within the transit system to assist transit staff.
- Providing social services in transit systems can be an alternative to increasing policing which can cause marginalized groups to feel less safe.

Examples:

- [City of Edmonton](#), AB - Community Outreach Transit Team

Case Study - [City of Toronto, LOFT Community Services Partnership](#)

The City of Toronto and the TTC are partnering with community wellbeing experts at [LOFT community services](#) to the needs of vulnerable people sheltering on Toronto's transit system. Loft is a social services agency that provides mental health services, addictions support and supportive housing in Ontario. Individuals requiring more complex and longer-term support will now have access to case workers and health care professionals. LOFT staff will be deployed in the transit system to connect people with services, including physical and mental health supports, through a case management approach to ongoing care. It is expected that through this partnership, an additional 80 to 100 people experiencing homelessness on the transit system will have access to support.

Resources:

- See our [Transportation Equity Handbook](#) for more information on increasing safety on transit for equity-owned groups
- [CUTA - Prioritizing Safety on Public Transit](#)

Support Active Transportation in Transit

The basics:

- Provide bike racks on public buses or space for bikes on light rail transits (LRTs) to allow for greater commute options and flexibility.
- Allow bikes on public transit can connect safe bike routes across high traffic areas or prohibited bike areas including highways.
- To further support intermodal opportunities, communities can add bike parking at major transit hubs, and cycling routes around transit stops.

Examples:

- [City of Ottawa, ON](#) - Cycling and Transit
- [City of Vancouver, BC](#) - Bikes on Transit
- [City of Winnipeg, MA](#) - Bike & Bus

Additional Resources

- [C40 Cities - How to make public transit an attractive option in your city](#)
- [NACTO - Transit Street Design Guide](#)
- [Climate Caucus - Active Transportation Handbook](#)

Did you know Climate Caucus offers an “Ask Us Anything” service for elected officials in the network?

You could ask questions like “can you help me find this resource?” “Do you know of funding for X?” “Do you have examples of X policy language?” or “can you connect me with an expert in X?”

Send us your questions here!

Climate Caucus Resources:

[Climate Caucus Municipal Grants List](#) - detailed list of relevant municipal grants

[Policies and Resources Library](#) - list of motions, bylaws, council reports and

