
TO: GENERAL COMMITTEE

SUBJECT: ELECTRIC VEHICLE CHARGING STATIONS

WARD: ALL

PREPARED BY AND KEY CONTACT: T. WILLIAMS, BUSINESS SERVICES ANALYST

SUBMITTED BY: B. FORSYTH, DIRECTOR OF TRANSIT AND PARKING STRATEGY

GENERAL MANAGER APPROVAL: R. JAMES-REID, EXECUTIVE DIRECTOR OF ACCESS BARRIE

CHIEF ADMINISTRATIVE OFFICER APPROVAL: M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

RECOMMENDED MOTION

1. That Traffic By-law 80-138, Section 4 "Parking Prohibited", be amended by adding the following:

4(15) Electric Vehicles
 - a) No person shall park a vehicle or any part of a vehicle in an Electric Vehicle Parking Space where such vehicle is not an Electric Vehicle.
 - b) No person shall park a vehicle or any part of a vehicle in an Electric Vehicle Parking Space where such vehicle is not connected to an Electric Vehicle Charging Station and charging.
2. That Traffic By-law 80-138, Section 1 "Interpretation", be amended by adding the following:

(rr) "Electric Vehicle" shall mean:
 - a) A vehicle that runs only on a battery and an electric drive train, or;
 - b) A plug-in hybrid electric vehicle that runs on a battery and an electric drive train, and also uses an internal combustion engine.
(ss) "Electric Vehicle Charging Station" shall mean any facility or equipment that is used to charge a battery or other energy storage device of an Electric Vehicle.

(tt) "Electric Vehicle Parking Stall" shall mean a parking space designated for the use of charging Electric Vehicles as indicated by a sign in the form set out in Schedule 3 to this By-law.
3. That Traffic By-law 80-138, Schedules Index, be amended by adding the "Schedule 3 - EV Parking Space Signage" attached as Appendix "A" to Staff Report TPS002-20.
4. That staff in the Enforcement Services Branch be authorized to make an application to the Ministry of the Attorney General for violations related to Traffic By-law 80-138 as amended, with fine amounts ranging from \$50.00 to \$1000.00 based on the nature of the offence.

5. That staff in the Operations Department in consultation with the Transit and Parking Strategy Department prepare and install new signage or replace the existing signage where required.

PURPOSE & BACKGROUND

6. In late 2017, the City partnered with Tesla to install 54 Electric Vehicle (EV) Charging Stations. Tesla donated the equipment and funded the installation costs. The City handles operating costs, however electricity costs to date have been far lower than originally anticipated and are partially funded through a sponsorship agreement with the BIA.
7. The EV Charging Stations were installed at the following locations (see Appendix “B” for a map):
 - Collier Street Parkade (24 total, 16 Tesla and 8 universal)
 - Marina (12 total, 8 Tesla and 4 universal)
 - Heritage (12 total, 8 Tesla and 4 universal)
 - Downtown Library (6 total, 4 Tesla and 2 universal)
8. Signage was installed allowing all vehicles to park at stalls with EV charging stations, including those with internal combustion engines (ICE), because some of the charging stations are located in highly utilized parking lots. Although this practice retained parking supply to meet demand at pinch points along the waterfront, it created frustration for EV drivers when they could not access the charging stations. Staff received direct correspondence regarding this issue and collected 58 survey responses. One of the major themes of the feedback concerned the inability to access charging stations due to parked ICE vehicles.
9. In December 2019, the Province of Ontario passed legislation to prevent the misuse of charging stations by limiting the use of these parking stalls to electric vehicles that are actively charging (see Appendix “C” for the complete text of Bill 123).
10. The purpose of this Staff Report is to bring the City’s approach into alignment with Bill 123 and address feedback from the EV community.

ANALYSIS

11. Regardless of provincial legislation, it is the professional opinion of staff that dedication is the best practice because it provides a higher level of service to the growing EV community and it optimizes the use of City assets. For these reasons, several municipalities in Ontario made the business decision to dedicate EV parking spaces prior to the introduction of Bill 123, including Brampton, Burlington, Kingston, London, St. Catharines and Sudbury.
12. Staff will continue to monitor the utilization of the EV charging stations to determine the impact of dedication on capacity at highly utilized parking lots. The forthcoming Parking Strategy Update recommends an equilibrium approach wherein charging stations were removed and redeployed at other parking lots based on utilization data and estimated costs. This approach ensures that the same total number of charging stations will be available to the public while maintaining availability for ICE vehicles where there is high demand for parking.

ENVIRONMENTAL AND CLIMATE CHANGE IMPACT MATTERS

13. The following environmental and climate change impact matters have been considered in the development of the recommendation:
- a. Providing public access to EV charging stations supports efforts to reduce greenhouse gas emissions related to transportation.

ALTERNATIVES

14. The following alternatives are available for consideration by General Committee:

Alternative #1

General Committee could maintain the existing approach wherein all types of vehicles are permitted to park at EV charging stations.

This alternative is not recommended because it does not comply with Bill 123 and in the future the Province will set a deadline for the municipality to come into compliance.

FINANCIAL

15. The cost of the new signage is estimated to be \$3,000 and will be funded through the 2020 Parking Rate Operating Budget. No additional staff resources will be required to implement the recommendation.
16. There is a risk there could be additional costs to retrofit signage once the province releases the supporting regulation for Bill 123 with specifications for EV signage. To mitigate this risk, staff researched and selected a design that is already being used successfully in both the City of London and Province of British Columbia. The proposed signage can be found in Appendix "A".

LINKAGE TO 2018–2022 STRATEGIC PLAN

17. The recommendation(s) included in this Staff Report support the following goals identified in the 2018-2022 Strategic Plan:
- ☒ Offering Innovation and Citizen Driven Services
 - ☒ Improving the Ability to Get Around Barrie
18. Providing charging stations on municipal property positions the City to respond to growing demand for EV amenities from residents and visitors in the future.
19. Maintaining access to charging stations will reduce range anxiety and make it easier to use EV in Barrie.

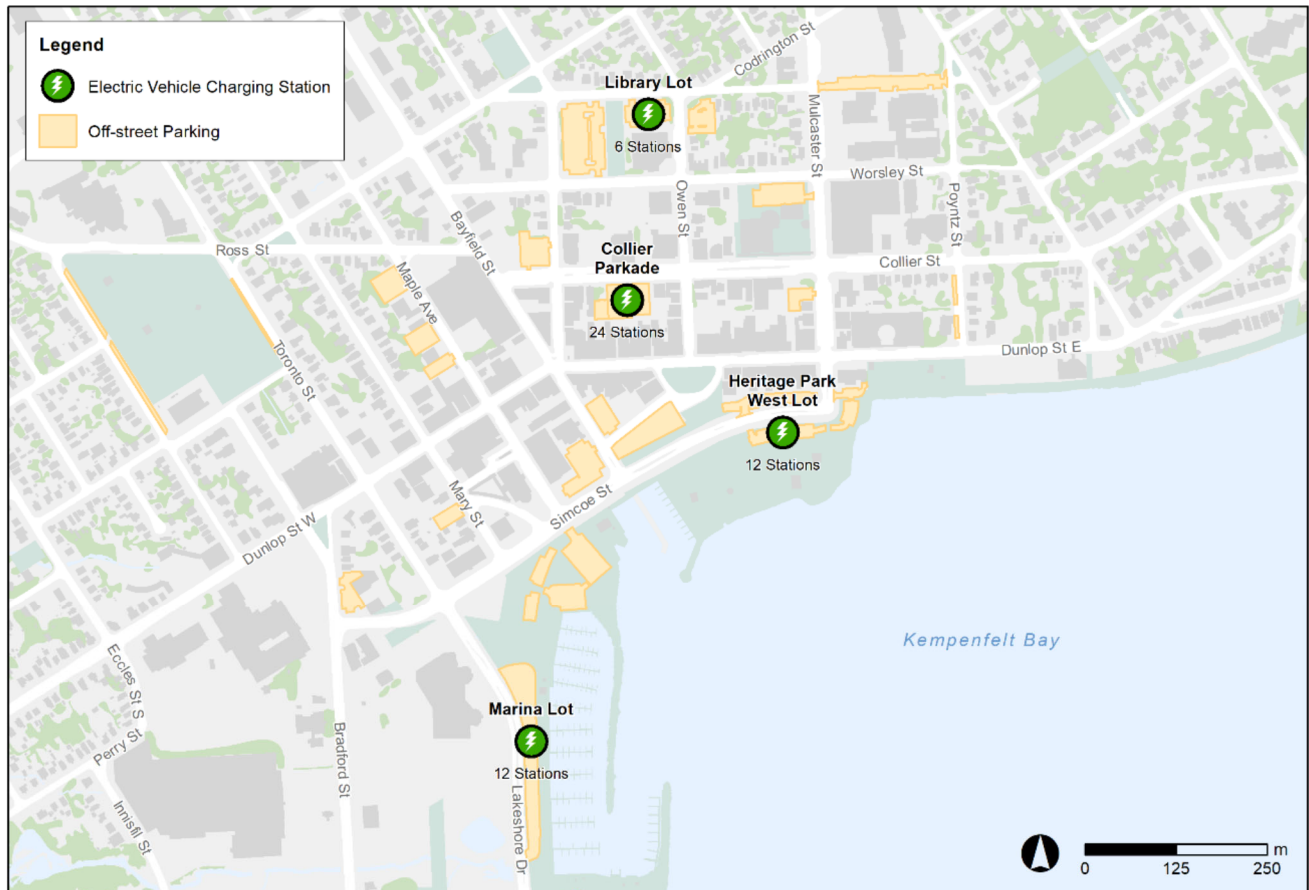
APPENDIX "A"

Proposed Schedule 3: EV Parking Space Signage



APPENDIX "B"

Existing EV Charging Station Locations



APPENDIX "C"

Bill 123

Legislative
Assembly
of Ontario



Assemblée
législative
de l'Ontario

1ST SESSION, 42ND LEGISLATURE, ONTARIO
68 ELIZABETH II, 2019

Bill 123

**An Act to amend the Highway Traffic Act respecting
electric vehicle charging stations**

Mr. P. Calandra

Private Member's Bill

1st Reading June 4, 2019

2nd Reading

3rd Reading

Royal Assen



Bill 123

2019

**An Act to amend the Highway Traffic Act respecting
electric vehicle charging stations**

Her Majesty, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:

1 The *Highway Traffic Act* is amended by adding the following Part:

**PART III.1
ELECTRIC VEHICLE CHARGING STATIONS****Definitions**

30.1 In this Part,
“electric vehicle” means,

- (a) a battery electric vehicle that runs only on a battery and an electric drive train, or
- (b) a plug-in hybrid electric vehicle that runs on a battery and an electric drive train, and also uses an internal combustion engine; (“véhicule électrique”)

“electric vehicle charging station” means a publicly or privately-owned parking space that provides access to equipment that supplies a source of electricity for charging electric vehicles. (“station de recharge pour véhicules électriques”)

Improper use

30.2 No person shall leave a vehicle unattended in an electric vehicle charging station unless the vehicle is an electric vehicle and the vehicle is attached to the station’s charging equipment.

Penalty

30.3 A person who contravenes section 30.2 is guilty of an offence and on conviction is liable to a fine of \$125.

Regulations

30.4 The Lieutenant Governor in Council may make regulations providing for any matters which, in the opinion of the Lieutenant Governor in Council, are necessary or advisable for the purposes of this Part, including,

- (a) requiring the erection of signs and the placing of markings to identify electric vehicle charging stations, and prescribing the types, content and location of the signs and markings;
- (b) providing for exemptions from this Part.

Commencement

2 This Act comes into force on a day to be named by proclamation of the Lieutenant Governor. **Short title**

3 The short title of this Act is the *Reserved Parking for Electric Vehicle Charging Act, 2019*.

EXPLANATORY NOTE

The Bill amends the *Highway Traffic Act* to add Part III.1, which provides that no person shall park a vehicle in an electric vehicle charging station unless the vehicle is an electric vehicle and it is attached to the station’s charging equipment. The Part also sets out a penalty for any contravention.