




CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Environmental Services Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	May 30, 2022
SUBJECT/REPORT NO:	Environmentally Sustainable Solutions for Food Trucks in Bayfront (and other Park(s)) (PW22041) (City Wide) (Outstanding Business List Item)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Cynthia Graham (905) 546-2424 Ext. 2337
SUBMITTED BY:	Cynthia Graham Acting Director, Environmental Services Public Works Department
SIGNATURE:	

RECOMMENDATION

- (a) That staff be directed to include food truck electrical hook up at Sam Lawrence Park as part of the construction in 2022 for use on a trial basis for the 2023 food truck season;
- (b) That staff be directed to report back on the trial of the electrical hook up at Sam Lawrence Park by Q4 2023, and;
- (c) That staff be directed to include consideration of working with the food truck industry to encourage more low carbon and climate change positive solutions as a part of Hamilton's overall Climate Change Action Strategy.

EXECUTIVE SUMMARY

At the November 15, 2021 Public Works Committee, the following motion was passed:

Environmentally Sustainable Solutions for Food Trucks at Bayfront (and other) Park(s)
(Item 11.1) (Farr/Jackson)

WHEREAS, the food trucks providing food to visitors at Bayfront and other Parks use gas generators to provide their electricity, consistently emitting CO2 and fine particulates into the surrounding neighbourhood;

THEREFORE, BE IT RESOLVED: That the appropriate staff be requested to explore the feasibility of installing electrical outlets (or other measures) for the food trucks to utilize to eliminate or greatly reduce CO2 emissions and fine particulates into neighbouring areas and report back in Q1, 2022.

Staff from several sections across Public Works and Planning and Economic Development Departments worked together to determine feasibility for providing an alternative power source for food trucks that use Bayfront Park.

After review and examination of the existing conditions at Bayfront Park, it was determined that an electrical hook up using existing infrastructure at the park is not possible. This is because the electrical infrastructure in the park supports the park lighting system which is unmetered, and insufficient for the additional load that would come with a food truck use. In order to create available electrical hook up at Bayfront Park, a new service would need to be designed and installed and is complicated by the CSO tanks that are in the vicinity of the existing parking lot area. A wired solution at other approved parks may be more easily achieved if scoped and designed during a park development project. Since Sam Lawrence Park will undergo construction for redevelopment in 2022, and is an approved park for food trucks, staff are recommending an electrical hook up for a trial and report back to committee by Q4 of 2023 through Recommendations (a) and (b) of Report PW22041.

Since there is significant variability in the electrical requirements of the trucks, creating an electrical hook up for use by food truck vendors that is useful for all vendors is challenging. As a second measure to achieve the goals of council to reduce pollution and greenhouse gas emissions, Recommendation (c) of Report PW22041 directs staff to conduct a larger conversation with the food truck industry be part of future considerations as part of community-wide actions required for Hamilton's energy transition and target of net zero by 2050.

Alternatives for Consideration – N/A

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: The existing project budget for Sam Lawrence Park can accommodate the minor increase in consulting and construction costs to install a trial electrical hook up as electrical upgrades are already included in the phase 1 project scope.

Staffing: N/A

Legal: N/A

HISTORICAL BACKGROUND

There are eight (8) parks that are available for licensed food trucks to use, through the Park Permit program, including Bayfront Park. All food trucks that are interested in selling food at these parks must apply for a Park Permit, and the program is overseen by Licensing and By-law Services.

The rules and restrictions, as well as permit can be found on the City's website. The requirements do not specify the power hook up and it is expected that the vendor would be responsible for their own power needs.

In 2019, the City of Hamilton Council declared a Climate Change Emergency and directed staff to form a Corporate Climate Change Task Force (CCCTF). Part of the work of the CCCTF is to support initiatives that would result in climate mitigation through the reduction in greenhouse gases, and climate adaptation that would decrease the impacts of climate change.

The CCCTF leads larger corporate-wide conversations about greenhouse gas emission reductions, and therefore would be the appropriate group to lead a larger conversation around city-imposed requirements to reduce greenhouse gas emissions for programs such as the food truck program.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

N/A

RELEVANT CONSULTATION

Staff from Licensing and By-law requested information from the vendors licensed for food trucks in the city in order to determine what power sources are required by the vehicles and whether the vendors would use the electrical hook up if it was available.

The following staff groups were consulted and are supportive of the recommendations:

Public Works Department, Environmental Services Division, Parks and Cemeteries
Section

Public Works Department, Transportation, Operations and Maintenance Division

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Planning and Economic Development Department Licensing and By-law Services
Division; Licensing Section

Healthy and Safe Communities Department, Air Quality and Climate Change Section

ANALYSIS AND RATIONALE FOR RECOMMENDATION

Staff reviewed the motion, and the possible design solutions that might achieve a lower-carbon energy alternative to internal combustion engine power for food trucks at Bayfront Park.

Food trucks are licensed by the City under Schedule 6 of the Licensing Bylaw No. 07-170 (Bylaw). Minimization of greenhouse gas emissions from a climate change perspective is not covered under any of the current by-law language.

Staff sent an inquiry to the currently licensed food service vehicle vendors to understand the electrical needs of the trucks. Of the 150+ vendors, 19 responses were received. The questions asked were “What voltage does the truck operate on, and how many full-load amps are required” and “what type and configuration of connection/connections are needed”. The responses are summarized in the table below.

Table 1: summary of responses from Food Service Vehicle Vendors

Voltage	Amps	Outlet Type
125/250V	50	-
120/240V	30	4 prong
240V	40	4 prong
120V	20	Regular
-	30	Twist
240V	60	-
125/250V	30	4 prong
120V	60	-
120/240V single phase	40	“stove type” plug
120/240V	100	-
-	30	Twistlock
110V	15	Regular
220V	50	“stove type” plug
120/240V single phase	30	4 pin Twistlock
120/240V	30	4 prong Twistlock
110V	15	-
120/240V single phase	30	Twist
240V	30	Twistlock

As shown in Table 1 of Report PW22041, the variability in the electrical requirements makes it challenging to provide a hook up that would meet the needs of vehicles. Vehicle power requirements varied from 15 – 100 amps, 120/240 volts, and outlet configurations including 2-prong, 3-prong, 4-prong, and standard or twist-lock receptacles. Additionally, since the city does not require any vehicle to attend any specific park, only limits the number of vehicles in the park at any one time, accommodating any of these combinations of electrical need would mean redundant systems and oversized capacity to account for the most power need anticipated.

Any installed electrical power pedestals would need to be close to where the trucks would park, to avoid extension cords causing trip hazards, maintaining compliance with the Ontario Electrical Safety Code and restrict vehicle movements. Due to the varied electrical needs for food trucks, they might not be able to connect to/be serviced by a power pedestal. Identifying suitable installation locations for power pedestals is problematic since they could impede clearing of snow in the winter and would need to be placed in potentially sub-optimal locations that could hinder the operations of the food trucks as it might not be in a desirable/accessible area. It is anticipated that with the correct set up, one pedestal might service two food trucks. A new pedestal typically costs around \$15,000 - \$20,000, in addition to the underground power feed that costs approximately \$30/linear metre, in parks that are not already undergoing redevelopments.

Many of the food truck vendors did indicate that they would take advantage of an electrical hook up for their power needs if one were available.

In order to take advantage of efficiencies for running new electrical service during a planned construction, and to trial how this service might be used by vendors, staff are directed through recommendations (a) and (b) of Report PW22041 to implement an electrical hook up at Sam Lawrence Park, since that park will be undergoing a redevelopment in 2022 and to report back to committee on the trial after one full summer season of use, by Q4 2023.

It is anticipated that there may be industry solutions that can reduce greenhouse gases and not require a physical electrical hook up. Food truck vendors are, by their nature, mobile and frequent many locations throughout the season, so would need to be able to function without an electrical source for any other locations, including along road frontages and within the approved parks. Unless all of these locations are fitted for electrical servicing, the vehicles would still rely on combustion engine energy solutions.

For these reasons, Report PW22041 also directs staff to investigate a solution that involves the industry, through the CCCTF to encourage, incentivize and/or require food truck vendors to have set ups that reduce greenhouse gas emissions, in a way that

would work with the vehicles and the energy requirements of the different food preparation systems.

ALTERNATIVES FOR CONSIDERATION

N/A

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Community Engagement and Participation

Hamilton has an open, transparent and accessible approach to City government that engages with and empowers all citizens to be involved in their community

Economic Prosperity and Growth

Hamilton has a prosperous and diverse local economy where people have opportunities to grow and develop.

Healthy and Safe Communities

Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

Clean and Green

Hamilton is environmentally sustainable with a healthy balance of natural and urban spaces.

Built Environment and Infrastructure

Hamilton is supported by state-of-the-art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

Culture and Diversity

Hamilton is a thriving, vibrant place for arts, culture, and heritage where diversity and inclusivity are embraced and celebrated.

Our People and Performance

Hamiltonians have a high level of trust and confidence in their City government.

APPENDICES AND SCHEDULES ATTACHED

N/A