

**2. Cargo Power-Assisted Bicycles (E-Cargo Bike) Pilot Project**

**Projet pilote sur les vélos cargos à assistance électrique (vélos cargo électriques)**

**COMMITTEE RECOMMENDATIONS**

**That Council:**

- 1. Approve the Cargo Power-Assisted Bicycles (E-Cargo Bike) Pilot Project, as detailed in this report; and**
- 2. Approve the proposed E-cargo Bike By-law in the form attached as Document 1 and as outlined in this report; and**
- 3. Approve the proposed amendments to the Licensing By-law No. 2002-189, as amended, and the relevant Schedule to the by-law, as described in Document 2 and as outlined in this report; and**
- 4. Direct staff to report back to Transportation Committee with an information report in 2024 outlining the results of the pilot project up to the end of 2023.**

**RECOMMANDATIONS DU COMITÉ**

**Que le Conseil :**

- 1. approuve le projet pilote sur les vélos cargo à assistance électrique (vélos cargo électriques), tel que décrit dans le présent rapport; et**
- 2. approuve le règlement sur les vélos cargo électriques proposé, dans sa forme présentée dans le Document 1 et tel que décrit dans le présent rapport; et**
- 3. approuve les modifications proposées au Règlement sur les permis (n° 2002-189, dans sa version modifiée), et à l'annexe pertinente du Règlement, tel que décrit dans le Document 2 et**

dans le présent rapport;

- 4. demande au personnel de présenter au Comité des transports en 2024 un rapport d'information faisant état des résultats du projet pilote jusqu'à la fin de 2023.**

For the Information of Council:

That Staff be directed to work with interested Councillors, Bike Ottawa and other stakeholders towards formally submitting concerns to the Province around some of the inconsistencies with how E-Cargo cargo bikes are expected to be used, as well as to the Federal Government on the lack of national standards for E-Cargo bikes.

Pour la gouverne du Conseil

Que l'on demande au personnel de travailler avec les membres intéressés du Conseil, Bike Ottawa et d'autres intervenants en vue de soumettre à la province, de façon officielle, des préoccupations concernant certaines incohérences sur l'utilisation prévue des vélos-cargos électriques, ainsi qu'au gouvernement fédéral, concernant l'absence de normes nationales encadrant les vélos-cargos électriques.

DOCUMENTATION

1. Omar Choudhry, Project Lead, Transportation Planning, Transportation Services Department, dated August 23, 2021 (ACS2021-TSD-TRF-0003).  
  
Omar Choudhry, Chef de projet, Gestion du réseau de transport, Services de la circulation, Direction générale des transports, daté le 23 août 2021 (ACS2021-TSD-TRF-0003).

**Transportation Committee  
Report 21  
September 8, 2021**

**76**

**Comité des transports  
Rapport 21  
Le 8 septembre 2021**

**Subject: Cargo Power-Assisted Bicycles (E-Cargo Bike) Pilot Project**

**File Number ACS2021-TSD-TRF-0003**

**Report to Transportation Committee on 1 September 2021**

**and Council 8 September 2021**

**Submitted on August 23, 2021 by Philippe Landry, Director, Traffic Services,  
Transportation Services**

**Contact Person: Omar Choudhry, Project Lead Transportation System  
Management, Transportation Services**

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**Ward: City Wide**

**Objet : Projet pilote sur les vélos cargos à assistance électrique  
(vélos cargo électriques)**

**Dossier : ACS2021-TSD-TRF-0003**

**Rapport au Comité des transports**

**le 1er septembre 2021**

**et au Conseil le 8 septembre 2021**

**Soumis le 23 août 2021 par Philippe Landry, Directeur, Services de la circulation,  
Direction générale des transports**

**Personne ressource : Omar Choudhry, Chef de projet, Gestion du réseau de  
transport, Services de la circulation, Direction générale des transports**

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**Quartier : À l'échelle de la ville**

## REPORT RECOMMENDATION(S)

That Transportation Committee recommend that City Council:

1. Approve the Cargo Power-Assisted Bicycles (E-Cargo Bike) Pilot Project, as detailed in this report;
2. Approve the proposed E-cargo Bike By-law in the form attached as Document 1 and as outlined in this report;
3. Approve the proposed amendments to the Licensing By-law No. 2002-189, as amended, and the relevant Schedule to the by-law, as described in Document 2 and as outlined in this report; and
4. Direct staff to report back to Transportation Committee with an information report in 2024 outlining the results of the pilot project up to the end of 2023.

## RECOMMANDATION(S) DU RAPPORT

Que le Comité des transports recommande au Conseil municipal :

1. d'approuver le projet pilote sur les vélos cargo à assistance électrique (vélos cargo électriques), tel que décrit dans le présent rapport;
2. d'approuver le règlement sur les vélos cargo électriques proposé, dans sa forme présentée dans le Document 1 et tel que décrit dans le présent rapport;
3. d'approuver les modifications proposées au Règlement sur les permis (n° 2002-189, dans sa version modifiée), et à l'annexe pertinente du Règlement, tel que décrit dans le Document 2 et dans le présent rapport;
4. de demander au personnel de présenter au Comité des transports en 2024 un rapport d'information faisant état des résultats du projet pilote jusqu'à la fin de 2023.

## EXECUTIVE SUMMARY

Over the past few years, interest in cargo power-assisted bicycles (e-cargo bikes) has grown as a viable alternative means in the package delivery service area. This is due to

improvements in battery and electric motor technology that allow riders to travel farther and haul greater weight. When used in a last-mile capacity, delivery companies are capable of using e-cargo bikes as an effective replacement for delivery trucks.

The Province of Ontario recently implemented changes to the *Highway Traffic Act* (HTA) through [Bill 282, Moving Ontarians More Safely Act](#), and introduced regulation to establish a new five-year pilot program ([O. Reg. 141/21](#)) to examine the use of e-cargo bikes, in those municipalities which enact a by-law permitting their use. The changes to the HTA re-classify some existing e-bikes over 55 kilograms as e-cargo bikes, resulting in residents with such e-bikes to now be in violation of the HTA and new legislation. While personal use of e-cargo bikes enables families to transport children around the city, the new pilot regulation also opens the possibility for e-pedicab/e-rickshaw uses and enabling an additional mobility option for residents and tourists.

With the continued increase in online shopping, accelerated because of the pandemic, there are more trucks and delivery vehicles on our roadways. The City of Ottawa seeks to enable effective mobility through a sustainable, accessible and connected city transportation system and has set targets to lower community greenhouse gas emissions. The use of active transportation options is encouraged as these provide health benefits to residents, reduce greenhouse gas emissions and alleviate traffic congestion. Enacting a municipal by-law that enables the use of both personal and commercial e-cargo bikes in the city will assist in supporting these corporate goals.

To allow Ottawa to participate in the new provincial pilot program, staff are recommending the implementation of a new E-Cargo Bike By-Law. The by-law segments e-cargo bikes into personal and commercial vehicles. Commercial vehicles are defined as electric bicycles that are wider than 0.95 metres, heavier than 120 kilograms or that are used in the conveyance of cargo for commercial purposes or for hire to transport people. Commercial e-cargo bikes shall be required to have the company name or logo on two opposing sides of the vehicle, as well as a four-digit identifier number. Furthermore, it is recommended that the Licensing By-law be amended to add e-rickshaws and require that a license be obtained to operate these vehicles where passengers are being transported. A processing fee and a license fee are applied to recover the costs of administration, enforcement and inspections.

The by-law also defines the specific transportation network facilities that each segment of e-cargo bike is permitted to use. All e-cargo bikes will be able to use the roadway, on-

street bike lanes, cycle tracks and separated bike lanes. Commercial e-cargo bikes will be prohibited from using the City's multi-use pathways. Personal e-cargo bikes will be permitted to use the City's multi-use pathways (except where prohibited by signage). All e-cargo bikes are prohibited from being used on sidewalks.

Existing bicycle parking facilities may be used by all e-cargo bikes, and commercial e-cargo bike operators will be allowed to apply for a short-term parking permit to use loading zones and no parking zones for 15 minutes when actively engaged in delivery activities. The annual short-term parking permit fee will be set at a cost of \$15.00 per commercial e-cargo bike. Stopping or parking in such manner as to encroach into the sidewalk, bike and vehicle lanes, benches, bus stops, fences, street furniture and similar infrastructure within the road right-of-way will be prohibited.

Staff will monitor the use and operation of e-cargo bikes on City facilities, as well as collect data to support the Ontario Ministry of Transportation's evaluation of the road safety impact of the pilot program.

Complaints from the public will be handled through calls to 3-1-1, as per current traffic-related issues. Ottawa Police Service will enforce moving and traffic-related offenses such as speeding and disobeying official signs. Municipal By-Law officers will enforce remaining violations, including parking violations. Holders of a short-term parking permit could also have their permit revoked for repeated violations.

A public survey on Engage Ottawa received 835 responses and over 91 per cent of respondents indicated support for the use of both personal and commercial e-cargo bikes. Consultation will take place for the duration of the pilot project by way of bi-annual stakeholder working group meetings. An initial meeting has been held and once the by-law is in place, the working group will include members from the accessibility community, senior's organizations, environmental community, cycling community and business community. The meetings will serve to discuss the status of the pilot project and potential modifications, if required.

## **BACKGROUND**

The Province recently enacted [Bill 282, Moving Ontarians More Safely Act](#), which modifies the *Highway Traffic Act (HTA)* definition of power-assisted bicycles (e-bikes) to set a maximum weight of 55 kilograms (kgs). These bicycles use an electric motor that

can assist a rider up to a speed of 32 kilometers/hour, at which time the power-assist function is disabled.

In parallel, the Province of Ontario recently enacted a new regulation under the Highway Traffic Act ([O. Reg. 141/21](#)) establishing a five-year pilot program to examine the use of cargo power-assisted bicycles (e-cargo bikes), for delivery use cases. Municipalities wishing to engage in this pilot program are required to implement new by-laws to permit the use of e-cargo bikes within the municipality. The new 55 kgs limit may have implications for residents who currently own e-bikes which may be considered e-cargo bikes.

E-cargo bikes are capable of providing an effective replacement for delivery trucks in urban areas. Globally, companies are investigating and implementing their use to improve operational efficiency and support efforts in “greening” their fleets.

The new legislation also allows for the transport of passengers using e-cargo bikes that are manufactured for that purpose. While personal use of e-cargo bikes could enable families to transport children around the city, the pilot regulations also open the possibility for e-pedicab/e-rickshaw uses and enabling an additional mobility option for residents and tourists.

The City seeks to enable effective mobility through a sustainable, accessible and connected city transportation system and has also set targets to lower community greenhouse gas (GHG) emissions. The use of active transportation options is encouraged as these provide health benefits to residents, reduce greenhouse gas emissions and alleviate traffic congestion. Enacting a municipal by-law that enables the use of both personal and commercial e-cargo bikes in the city will assist in supporting these corporate goals.

## **DISCUSSION**

With the increase in online purchases and package deliveries, courier companies are seeking new ways to improve operational efficiencies. This includes reducing greenhouse gas emissions through the electrification of their fleets. Within cities, the standard delivery truck used by companies such as Purolator, FedEx and UPS are ubiquitous. Many cities are interested in decreasing truck traffic in urban settings. The COVID-19 pandemic and efforts to encourage shopping local has increased the



demand for delivery services and the opportunities for new local delivery models.

New operational concepts have been piloted in Europe, New York, Montreal (launched September 2019), Toronto (November 2020) and Vancouver (April 2021). These concepts also include the creation of “cycling logistics centres” (CLC) within the city and enable a small industrial space (typically 300 square-feet per e-cargo bike) to be serviced by a single larger truck with several e-cargo bikes completing the last-mile delivery of the packages. One e-cargo bike has been found to be capable of replacing one standard delivery truck and can effectively service an area within a 3 to 5 kilometers radius of the CLC to minimize empty-miles travelled. A study conducted by the University of Toronto Transportation Research Institute found that the replacement of one delivery truck with an electric-assist cargo tricycle can prevent the release of upwards of 1.9 metric tonnes of carbon dioxide (CO<sub>2</sub>) per year. Further details of the study are available in the following article: [Onkar Chander: Can cargo bikes ease downtown congestion?](#)

The Province began soliciting comments from municipalities in Fall 2020 regarding potential legislation on e-bikes and an e-cargo bike pilot program. The City provided a supportive response with some recommended adjustments to speed and weight of the bikes. Subsequent to this comment period, the Province announced regulation for the e-cargo bike pilot program (*O.Reg. 141/21*) which runs from March 1, 2021, to March 1, 2026. Municipalities that choose to allow e-cargo bikes are responsible for regulating where e-cargo bikes can be used and parked, amongst other local considerations. To participate in the pilot program, a municipal by-law must be enacted. Given the advantages of participating in the pilot program, staff are recommending the implementation of a new *E-Cargo Bike By-Law*, as detailed in Document 1.

The new provincial e-cargo bike pilot regulation also allows for the transport of passengers using e-cargo bikes. While personal use of e-cargo bikes will enable families to transport children around the city, the legislation opens the possibility for e-pedicab/e-rickshaw uses, enabling an additional mobility option for residents and tourists.

The Province has also enacted *Bill 282 – Moving Ontarians More Safely Act*, which modifies the HTA definition of power-assisted bicycles to include a maximum weight of 55kg. This new 55kg limit may have implications for residents who currently own e-bikes which may be considered e-cargo bikes.

### **Reducing Truck Traffic in Urban Areas**

As a result of increased online shopping and on-demand food delivery services, the city is seeing an increase in the number of delivery vehicles circulating. Often these vehicles are competing for short-term parking spaces or parking illegally. A typical delivery vehicle completes 100 to 120 package deliveries per day, resulting in frequent stops averaging approximately 5 minutes. As the number of requests for deliveries increase, so too must the number of delivery vehicles. Commercial e-cargo bikes can effectively replace delivery vans in urban areas, thus providing a greener and more efficient alternative to support the same delivery demand.

Due to the worldwide demand for bicycles and factory shutdowns during the pandemic, there are currently a limited number of new e-cargo bikes available for sale. As such, staff expect approximately 25 commercial e-cargo bikes to be operating in the downtown core within the first two years of the pilot, along with additional e-cargo bikes in other areas of Ottawa that are strategic to the business community.

As part of Ottawa's pilot project, the names or logos of organizations along with a vehicle identifier would need to be made clearly visible on commercial e-cargo bikes. Participating organizations would also require a short-term parking permit (similar to the Small Business Identity Permit), that is clearly visible on the commercial e-cargo bike and allows the use of loading zones and no parking zones for up to 15 minutes while actively engaged in a delivery. The short-term parking permit fee will be set at \$15.00 per year per commercial e-cargo bike. Commercial e-cargo bike delivery services through accommodative parking policies and permit procedures will assist in reducing heavy vehicle traffic, greenhouse gases and will contribute to making Ottawa's streets safer.

### **Providing Alternative Mobility Options**

With the ever-increasing cost of living and the importance of an active lifestyle to help remain healthy, cycling and other active transportation options have been growing in popularity. The pandemic, and social distancing requirements have further increased the need city-wide for active transportation. Personal e-cargo bicycles are an effective alternate mobility option for families to assist in the transport of children or for personal shopping trips.

Whether personal e-cargo bikes are used to replace a second household vehicle, to reduce a person's environmental footprint or for personal health reasons, their use is supported by existing City policies and priorities. Enacting a by-law to participate in the Province's pilot program furthers those goals.

The provincial pilot regulation also enables the use of e-pedicab/e-rickshaw style vehicles that may be used to support tourism-related travel around the city, and have been used successfully around the world in supporting seniors and individuals in assisted-living facilities to get out to enjoy nature through the [Cycling Without Age](#) program. The City's current *Licensing By-law (No. 2002-189)* regulates and restricts rickshaws to solely muscle-powered vehicles. Staff recommend that the Licensing By-law be amended, as described in the attached Document 2, to add e-rickshaws and require that a license be obtained to operate these vehicles where passengers are being transported. A processing fee and a license fee are applied to recover the costs of administration, enforcement and inspections.

### **Distinguishing Commercial versus Personal Use**

There is a noticeable difference in both size and operational use cases between e-cargo bikes used for personal needs versus commercial needs. Commercial users generally have wider and heavier e-cargo bikes and make more frequent stops than persons using e-cargo bikes for personal uses such as transporting children, recreation or running errands. The proposed by-law defines commercial e-cargo bikes as having either a width greater than 0.95 meters, a weight greater than 120 kilograms unladen, or being used for hire for the conveyance of cargo or persons. Figure 1 and 2 illustrate examples of commercial and personal use e-cargo bikes.





*(Photo Credits (clockwise): Antonello Marangi, Christiana Bikes, Purolator Courier, Postmedia – Montreal Gazette)*

**Figure 1 – Examples of Commercial Use E-Cargo Bikes to Carry Goods and Persons**



*(Photo Credits (Left to Right): Virtue Cycles, Ferla Bikes, Bunch Bikes)*

**Figure 2 – Examples of Personal Use E-Cargo Bikes**

Additionally, commercial e-cargo bikes would require clear markings (company logo or legal name) and an ID number on two sides of the vehicle. This would ensure the commercial e-cargo bike owner or operator is easily identifiable by both the public and authorities should any enforcement actions be required.

### **Stakeholder Consultation**

From June 25 to July 15, 2021, an online public survey was posted on the Engage Ottawa website to solicit feedback on the use of e-cargo bikes in Ottawa. A total of 835

responses were received. Survey participants were asked about their support for both personal and commercial e-cargo bike use in Ottawa, as well as their current bike ownership, frequency of bicycle use, normal distance travelled and typical purpose of trips by bicycle. They were also asked in which facilities e-cargo bikes should be allowed to operate and where e-cargo bikes should be allowed to park. The key results are shown in the tables below. A full report of the survey results is included in Document 3.

**Table 1 – Responses to “Would you support the use of e-cargo bikes in the City of Ottawa?”**

<b>Type of Bike</b>	<b>Support</b>	<b>Oppose</b>	<b>Not Sure</b>
Personal e-cargo bikes	91.4%	4.9%	3.7%
Commercial e-cargo bikes	92.4%	5.1%	2.5%

**Table 2 - Responses to "The City is seeking comment on allowing e-cargo bikes to operate on the following types of facilities. Please indicate your support for each facility type?"**

<b>Type of Facility</b>	<b>Support</b>	<b>Oppose</b>	<b>Not Sure</b>
Roadways	86.0%	7.7%	6.3%
On-street bike lanes	89.3%	7.1%	3.5%
Cycle tracks	83.9%	8.0%	8.2%
Separated bike lanes	86.1%	7.6%	6.3%
Multi-use pathways (personal e-cargo bikes only)	62.7%	15.3%	22.0%
Multi-use pathways (all e-cargo bikes)	40.4%	31.2%	28.4%

**Table 3** – Responses to “The City is seeking comment on allowing e-cargo bikes to park in the following types of locations. Please indicate your support for each location type?”

Type of Location	Support	Oppose	Not Sure
Vehicle parking spots	86.0%	7.7%	6.3%
Locations where delivery vehicles can park	89.3%	7.1%	3.5%
Furniture zones	83.9%	8.0%	8.2%
Boulevards	86.1%	7.6%	6.3%

Staff will hold a follow-up online public survey to solicit feedback regarding the use of e-cargo bikes in the city prior to the conclusion of the pilot project. Feedback from this survey will inform the City’s future involvement with e-cargo bicycles in Ottawa. Staff have also initiated the creation of a stakeholder working group that will meet twice annually, at a minimum, to review the status of the pilot project, identify issues and discuss potential solutions that could be implemented to mitigate these issues. Organizations that will be represented in the Stakeholder meetings are listed in the Consultation section of the report.

### **General Operating Rules**

Staff are recommending that all e-cargo bikes be allowed to operate on roadways, in on-street bike lanes, cycle tracks and separated bike lanes under the proposed by-law. The use of City-owned multi-use pathways will be restricted to personal e-cargo bikes, except where prohibited by official signs. As with other types of bicycles, riding on sidewalks is prohibited for all e-cargo bikes.

Operating rules regarding the stopping and parking of e-cargo bikes will allow these vehicles to use regular vehicle paid parking spaces (with valid payment), as well as in designated furniture zones and boulevards provided that the e-cargo bike fits without encroachment into the sidewalk, bike and vehicle lanes, benches, bus stops, fences, street furniture and similar infrastructure within the road right-of-way. These vehicles will be prohibited from parking on sidewalks or in bike lanes and travel lanes. When used in conjunction with the special short-term parking permit, commercial e-cargo

bikes will be permitted to use loading zones and no parking zones for up to 15 minutes while actively engaged in delivery activities.

### **Pilot Monitoring, Evaluation and Complaints**

City staff will be able to monitor which organizations are using e-cargo bikes as they will be identified through the parking permit process. To support the City's management and evaluation of the pilot project, commercial e-cargo bike operators will be required to provide data that may include the areas of operation within the city, trip origin and destination information, days and hours of operation, number of vehicles, deliveries per vehicle per day, as well as data on complaints, collisions and injury reports. Success of the pilot will be evaluated according to the following:

- Number of commercial e-cargo bikes in use and associated decrease in truck usage by organizations;
- Safety and comfort for road users, cyclists, pathway users and pedestrians;
- Accessibility concerns for persons with disabilities;
- Operational challenges for businesses;
- Parking compliance and owner/operator response to parking management issues; and,
- Satisfaction of riders and residents of Ottawa as measured through 3-1-1 comments and complaints, emails to staff and the follow-up on-line e-cargo bike survey.

Staff will be supporting the Ontario Ministry of Transportation requirement for collection of data to evaluate the road safety impact of the pilot program through collection of e-cargo bike collision data using existing processes for motor vehicle collision reports.

Complaints from the public will be handled through calls to 3-1-1, as per current traffic-related issues. Ottawa Police Service will enforce moving and traffic-related offenses such as speeding and disobeying official signs. Municipal By-Law officers will enforce remaining violations of this by-law, including parking violations. Holders of a short-term parking permit could also have their permit revoked for repeated violations.

## **FINANCIAL IMPLICATIONS**

There is no financial implication associated to the recommendations in this report. The pilot is designed to be revenue neutral with the permit fees covering the cost.

## **LEGAL IMPLICATIONS**

There are no legal impediments associated with Committee and Council's approval of the recommendations of this report.

## **COMMENTS BY THE WARD COUNCILLOR(S)**

Not applicable for this report

## **ADVISORY COMMITTEE(S) COMMENTS**

Traffic Services consulted with the Accessibility Advisory Committee Chair on July 29, 2021, and received their response through an email on August 10, 2021 (see Document 4).

## **CONSULTATION**

### **Internal Stakeholders:**

In total, Traffic Services staff solicited feedback from 18 internal stakeholders with vested interest in the transportation network as part of this report. Each agency or subject matter expert was provided a copy of the draft E-Cargo Bike By-law seeking their feedback. Stakeholders were also provided an opportunity to meet with the project team following their review to discuss potential issues/ideas.

Internal Stakeholders included:

- Transportation Services Department (Traffic Services and Transportation Planning);
- Emergency and Protective Services Department (By-law and Regulatory Services);
- Service Innovation and Performance Department (Service Ottawa - Client Service Centre);
- Innovative Client Services Department (Legal Services);
- Ottawa Police Service;



- Public Works and Environmental Services Department (Transitway and Parking Branch); and,
- Planning Infrastructure and Economic Development Department (ROW Heritage & Urban Design Services, Economic Development Services).

### **External Stakeholders**

#### Online Survey

A public survey was posted on the Engage Ottawa website from June 25 to July 15, 2021 to solicit feedback from the public regarding their interest in allowing e-cargo bikes to be used within the City of Ottawa. A full report of the survey results is found attached in Document 3. Staff will hold a follow-up on-line public survey to solicit feedback regarding the use of e-cargo bikes in the city prior to the conclusion of the pilot project.

#### Working Group

Staff have also initiated the creation of a stakeholder working group that will meet twice annually, or as required, to review the status of the pilot project, identify issues and discuss potential solutions that could be implemented to mitigate these issues. An initial meeting was held on July 21 and included staff from the EnviroCentre, Council on Aging, Canadian National Institute for the Blind Foundation and the City's Accessibility Office. The general consensus from working group members is that the proposed approach for e-cargo bikes is sound. Members did express concern in permitting larger commercial e-cargo bikes to be parked in furniture zones. Given furniture zones are not all equal, as part of the Pilot Project, e-cargo bikes will be permitted to only park in designated furniture zones. This will allow staff to evaluate e-cargo bike parking demand requirements and available parking locations, as well as review potential furniture zones to ensure those selected reduce the likelihood of encroachment on pedestrian paths, bike paths, benches and other furniture due to the zone's shape and size.

Future working group stakeholders will include additional members from the accessibility community, seniors' organizations, environmental community, cycling community, business community and representatives from the City.

National Capital Commission / Ville de Gatineau

Additionally, staff consulted with the National Capital Commission (NCC) and Ville de Gatineau to review the allowance of e-cargo bikes on City of Ottawa facilities, and the implications for the respective organizations. During the MTO comment period, the NCC had suggested consideration of personal and commercial categories (commercial use of NCC facilities would be prohibited) and a limitation in e-cargo bike width, both of which align with the direction being proposed in the by-law. Ville de Gatineau are currently reviewing their policies and by-laws regarding active transportation and micromobility technologies.

**ACCESSIBILITY IMPACTS**

As outlined in the report, the operation of e-cargo bikes will be limited to roadways, on-street bike lanes, cycle tracks and separated bike lanes. The use of City-owned multi-use pathways will be prohibited to commercial e-cargo bikes, however personal e-cargo bikes will be permitted, except where prohibited by official signs. As with bicycles, riding e-cargo bikes on sidewalks is prohibited, and all must be equipped with a bell or horn used to notify surrounding pedestrians or cyclists of their approach. Furthermore, operating rules regarding the stopping and parking of e-cargo bikes will not impede on accessible parking space availability.

City staff are aware of potential physical barriers that could arise due to a mis-parked e-cargo bike, and parking requirements are detailed within the proposed E-Cargo Bike By-law. E-cargo bikes are prohibited from parking on sidewalks or in bike lanes and travel lanes. Personal e-cargo bikes can park at ring and post racks, ring racks and bicycle corrals. Commercial e-cargo bikes can also be parked in regular vehicle paid parking spaces (with valid payment), and when used with a special short-term parking permit, these vehicles will be permitted to use loading zones and no parking zones for up to 15 minutes while actively engaging in loading/unloading activities. E-cargo bikes can only be parked in designated furniture zones and boulevards provided that the e-cargo bike fits without encroachment into the sidewalk, cycle track, benches, bus stops, etc.

Electric vehicles emit minimal sound which makes it difficult to identify a vehicle in motion, or that is temporarily stopped. While new regulations exist in the EU and United States for electric automobiles, the same is not true for active transportation modes. City staff will be working with commercial e-cargo bike operators to test various

technologies to equip bikes with the capability to produce continual sound when in motion.

City staff are committed to ensuring that the feedback of accessibility stakeholders is considered during the execution of the E-Cargo Pilot Project with the goal of reducing barriers to persons with disabilities. The bi-annual e-cargo bike stakeholder working group meetings will serve as formal channel to share feedback and address any issues brought forward.

### **CLIMATE IMPLICATIONS**

In January 2020, Council unanimously approved the Climate Change Master Plan, which is the overarching framework for how Ottawa will mitigate and adapt to climate change over the coming decades. It set short, mid, and long-term targets to reduce community GHG emissions by 100 per cent by 2050 and corporate emissions by 100 per cent by 2040. The Climate Change Master Plan is supported by Energy Evolution: Ottawa's Community Energy Transition Strategy. Received by Council in October 2020, this strategy is the action and investment framework for how Ottawa can achieve its GHG reduction targets and it identified the need for commercial fleets to transition to zero-emission fleets. Projects such as the E-Cargo Bike Pilot Project can inform and support meeting these targets and reducing emissions within Ottawa's transportation sector.

### **ENVIRONMENTAL IMPLICATIONS**

The pilot aligns with the City's Climate Change goals by offering a low greenhouse gas transportation option.

### **RISK MANAGEMENT IMPLICATIONS**

There are no risk implications.

### **RURAL IMPLICATIONS**

Cycling and active transportation is important to the entire transportation network and the potential for e-cargo delivery services can equally benefit rural village communities. Due to the distances between potential delivery locations, commercial use of e-cargo bikes outside of rural villages is not anticipated, but personal e-cargo bikes may provide an alternative means of transportation and completing personal errands.

## TERM OF COUNCIL PRIORITIES

The report aligns with the following City of Ottawa 2019 – 2020 Strategic Plan Priorities:

- **Integrated Transportation:** Enable effective mobility through a sustainable, accessible and connected city transportation system; and,
- **Environmental Stewardship:** Grow and protect a healthy, beautiful and vibrant city that can adapt to change.

## SUPPORTING DOCUMENTATION

Document 1: Proposed E-Cargo Bike By-law

Document 2: Drafting instructions to amend the Licensing By-law No.2002-189, as amended, and Schedule 13 respecting Rickshaws

Document 3: Results of Online E-Cargo Bike Survey

Document 4: Response from Accessibility Advisory Committee on Cargo Power-Assisted Bicycles (E-Cargo Bike) Pilot Project

## DISPOSITION

Upon approval of this report, staff in Traffic Services will work with necessary stakeholders to implement the E-Cargo Bike Pilot Project as approved by Council. Staff will also work with Legal Services and By-law and Regulatory Services to finalize and complete the steps to enact the proposed E-Cargo Bike By-law, and the amendments to the Licensing By-law, and to seek, where applicable, the approval of the associated set fines imposed.