

## Report to Civic Works Committee

**To:** Chair and Members  
Civic Works Committee

**From:** Kelly Scherr, P.Eng., MBA, FEC, Managing Director,  
Environmental & Engineering Services & City Engineer

**Subject:** Cycling and Transportation Demand Management Upcoming  
Projects

**Date:** March 30, 2021

## Recommendation

That the on the recommendation of the Managing Director, Environmental & Engineering Services & City Engineer, the following actions be taken with respect to the 2021 key cycling and TDM projects:

- a. this report **BE RECEIVED** for information;
- b. Civic Administration **BE AUTHORIZED** to set a minimum 250 e-scooters to be placed in the Request for Proposals for an e-scooter Pilot Project as part of a potential combined bike share and e-scooter share micromobility project; and
- c. Civic Administration **BE DIRECTED** to prepare a plan and initiate a process to determine how a Cargo e-Bike Pilot Project might be undertaken in London including the advantages and disadvantages of a program, key stakeholder input, potential restrictions on where cargo e-bikes may be used and parked, other operating and safety parameters, amendments that would be required to City by-laws, and seek community input.

## Executive Summary

The purpose of this report is to provide a brief update to Committee and Council on key cycling and Transportation Demand Management (TDM) projects in 2021 in the areas of: measuring progress on cycling, bike parking, cycling infrastructure, measuring progress on Transportation Demand Management, Business Travel Wise Program, development of a Transportation Management Association (TMA), development of a Bike Share System, permitting E-scooter use and potential pilot project, and permitting cargo e-bikes.

This report also provides details to allow Committee and Council to approve the recommended minimum number of e-scooters as 250 in the micromobility request for proposal (RFP). This report also seeks direction to develop a plan and initiate a process to allow cargo e-bikes in London. The Province has recently permitted a five year pilot framework subject to a municipality passing a by-law containing the operating parameters and requirements for cargo e-bikes.

## Linkage to the Corporate Strategic Plan

Municipal Council's 2019-2023 Strategic Plan for the City of London continues to recognize the importance of active transportation, cycling, and the need for a more sustainable and resilient city.

On April 23, 2019, the following was approved by Municipal Council with respect to climate change:

*Therefore, a climate emergency be declared by the City of London for the purposes of naming, framing, and deepening our commitment to protecting our economy, our eco systems, and our community from climate change.*

Personal transportation is the largest source of greenhouse gas emissions in London. Transportation Demand Management, including the role of cycling to replace vehicle trips, has been a priority action for London's community energy planning activities since the mid-2000s and will remain a key part of London's upcoming Climate Emergency Action Plan.

## Analysis

### 1.0 Background Information

#### 1.1 Previous Reports Related to this Matter

Relevant reports that can be found at [www.london.ca](http://www.london.ca) under Government (City Council and Civic Administration) include:

- Active Transportation Manager submitted by Councillors E. Pelozo and S. Lewis (June 23, 2020 meeting of the Civic Works Committee - CWC, Agenda Item #4.1)
- Proposed Approach to Review E-Scooters in London (January 7, 2020 meeting of CWC, Agenda Item # 2.8)
- Environmental Programs Annual Overview Update (April 16, 2019 meeting of CWC, Agenda Item # 2.6)
- London ON Bikes Cycling Master Plan (September 7, 2016 meeting of CWC, Agenda Item # 3)

### 2.0 Discussion and Considerations

Listed below and summarized on the following pages are the upcoming key cycling and TDM activities for 2021:

#### 2.1 Measuring Progress on Cycling

#### 2.2 Bike Parking

- 2.2.1 Bike Lockers
- 2.2.2 Bike Parking Posts and Corrals
- 2.2.3 Neighbourhood Bike Parking Guidelines
- 2.2.4 Business Bike Rack Program
- 2.2.5 Bike Parking Plan

#### 2.3 Cycling Infrastructure

#### 2.4 Measuring Progress on Transportation Demand Management (TDM)

#### 2.5 Business Travel Wise Program

#### 2.6 Development of a Transportation Management Association (TMA)

#### 2.7 Development of a Bike Share System

#### 2.8 Permitting E-scooter Use and Potential Pilot Project

#### 2.9 Permitting Cargo E-bikes

#### 2.1 Measuring Progress on Cycling

A cycling performance measures program will help City staff track progress towards measuring the increasing number of trips made by bicycle across London, develop effective solutions that meet Londoners' needs, and prioritize investments.

Planning, designing and implementing projects and programs for cyclists requires performance measures to help prioritize projects, evaluate appropriate cycling infrastructure types, and track initiatives and programs over time. Meaningful and context-sensitive performance measures dedicated to cycling are valuable for many reasons, including:

- demonstrating the value and tracking progress of cycling projects and programs to citizens, businesses and the community;
- informing cycling investments through local and other data-driven measures of success;

- providing information and feedback to engage cyclists and all road users;
- capturing the value of new and innovative data collection methods and use of existing data sets for cycling;
- supporting current funding requirements and requests; and
- producing a better built environment for cycling.

The cycling performance measures program will detail how cycling facilities and supports are being used, how they can be tracked and what data are required. This program will assist staff in documenting how cycling projects and supports relate to the Strategic Plan, the current and future Transportation Master Plans, the Cycling Master Plan, and the Climate Emergency Action Plan. Examples of cycling performance measures by category include:

Monitoring Categories	Examples of Measurement Area
1. Bicycle Use Data	<ul style="list-style-type: none"> <li>• Mode share</li> <li>• Bike travel distance (average trip length)</li> <li>• Bike counts (Eco-counters)</li> <li>• Bike ownership</li> </ul>
2. Cycling Infrastructure	<ul style="list-style-type: none"> <li>• Facility lengths by types</li> <li>• Route level of connectivity</li> <li>• Bike parking</li> <li>• Business Bike Rack Program</li> </ul>
3. Cycling Experience and Quality	<ul style="list-style-type: none"> <li>• Perceived safety when cycling</li> <li>• Type of cyclist served by facility</li> <li>• On-route commuting (travel time)</li> <li>• On-route experiences (recreational)</li> <li>• Cycling information, events</li> <li>• Cyclist level of comfort (Level of Service - LoS)</li> <li>• Collision data and locations</li> </ul>
4. Costs and Economic Benefits	<ul style="list-style-type: none"> <li>• Cost/benefit analysis</li> <li>• Cycle tourism</li> <li>• Adjacent (to routes) property values</li> </ul>
5. Environmental and Climate Action Benefits	<ul style="list-style-type: none"> <li>• Climate Change – greenhouse gas reduction</li> <li>• Exposure to air pollutants</li> <li>• Air quality impacts</li> </ul>

This project is currently underway with the collection of background information, noting some delays experienced due to the ongoing pandemic.

### Next Steps and Timeline

- Complete review of cycling performance measures used by other municipalities and guidebooks developed by North American transportation organizations and finalize draft list of London cycling performance measures and tracking processes (Spring/Summer 2021).
- Seek partner input in Spring/Summer 2021.
- Determine how to present annual progress to the public and decision-makers.
- Finalize report in Summer/Fall 2021.

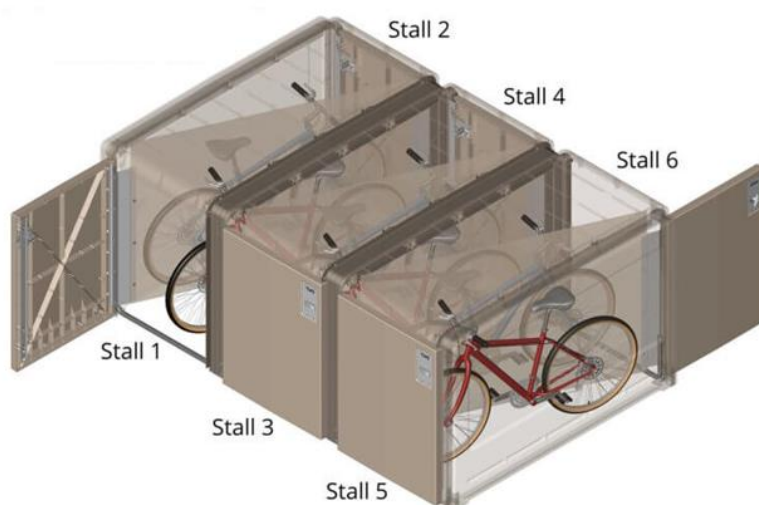
## 2.2 Bike Parking

Below is a list of the bike parking actions underway in 2021, including the development of a Bike Parking Plan for London.

### 2.2.1 Bike Lockers

To continue to address the 2016 Cycling Master Plan's Action #8 - Enhancing Bicycle Parking, the City purchased nine bike lockers (capacity for 18 bikes) as part of a pilot project to provide secure bike parking in and around downtown.

A bike locker is a large box in which up to two bicycles can be locked separately. They provide a higher level of security and convenience for Londoners riding a bike. Bike lockers help prevent theft, provide weather protection, and deter casual vandalism. The lockers provide a number of advantages over the traditional bike parking currently used in London on public property including posts, racks and corrals.



Bank of Six Lockers

(Source: <https://cyclesafe.com/bike-parking/bike-lockers/propark-bike-locker-bank/>)

Three sets of three lockers (6 individual bikes) will be installed in downtown London this Spring:

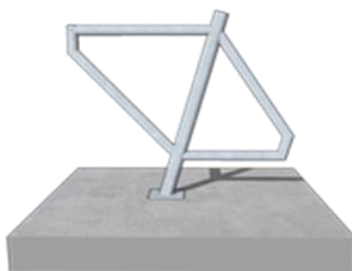
- parking garage of Covent Garden Market;
- north-east corner of Dundas and Wellington at the end of the newly-constructed Dundas cycle tracks; and
- a third location closer to Richmond Row and Victoria Park

#### Next Steps and Timeline

- Complete installation and approve rental fees for use during the pilot project.
- Track locker usage for defined periods of time in 2021.
- Determine the need to relocate based on usage and potential demand in other areas.
- Obtain details from users to assist with additional bike parking needs, including additional indoor facilities (e.g., bike parking facilities with controlled access, etc.)

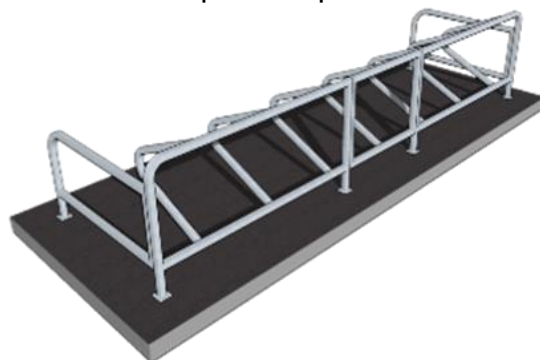
### 2.2.2 Bike Parking Posts and Corrals

The City continues to install more short-term bike parking in the public right-of-way as resources allow. For 2021, ten TeMo-style bike posts have been ordered. These are London-designed and manufactured posts that each allow two bikes to be locked to them. They will be installed in the furniture zone along sidewalks. Specific locations for their installation will be determined based on need and virtual public input.



TeMo Bike Post

The City is also adding two new bike corrals to its existing set of two corrals. A bike corral is installed in an on-street parking spot. It allows parking for up to fourteen bikes in the space required for one motor vehicle. The City's two existing corrals are being relocated due to downtown construction. Locations for the four corrals will be determined based on need and virtual public input.



Bike Parking Corral

### **Next Steps and Timeline**

- Seek public input on locations in Spring 2021.
- Installation of posts and corrals starting in early Spring through Fall 2021.

### **2.2.3 Neighbourhood Bike Parking Guidelines**

The Neighbourhood Bike Parking Guidelines, a companion document to the City of London's 2018 Complete Streets Design Manual, will provide several design and installation options for short-term bike parking in the municipal road right-of-way, specifically near transit stops. This document will be used by City staff and contractors working on projects that include short-term bike parking as part of their scope of work. The Neighbourhood Bike Parking Guidelines include preferred bike rack design styles and recommended site planning to ensure consistency across London.

For London cyclists, these guidelines will help city builders recognise the importance of having a convenient place to park a bike that is well-designed and located in a visible spot.

The draft Neighbourhood Bike Parking Guidelines document was developed with input from several City service areas and partners, including:

- Transportation Planning & Design
- Major Projects
- Roads Operations
- City Building & Design
- Parks Planning & Operations
- London Transit Commission
- London Police Service

### **Next Steps and Timeline**

- Seek input from the Cycling Advisory Committee and others in Spring 2021.
- Finalize the document and distribute to City staff and others in Summer 2021.

### **2.2.4 Business Bike Rack Program**

The City is regularly contacted by local businesses seeking bike parking. The Business Bike Rack Program has been developed to offer businesses a bike rack at cost for installation on their property. It is an element of the Business Travel Wise Program (see Section 2.5).

### **Next Steps and Timeline**

- Contact businesses who have already requested more information.
- Monitor program uptake and plan for future demand.

### 2.2.5 Bike Parking Plan

The Bike Parking Plan will build on past City actions to increase and maintain short and long-term bike parking. It will apply lessons from the Neighbourhood Bike Parking Guidelines to include items such as budget, neighbourhoods and areas that need increased bike parking, associated timelines, and winter maintenance. It will also address the need for permanent secure bike parking. A review of bike parking plans in other municipalities is currently underway.

#### Next Steps and Timeline

- Engage with City of London service areas and partners for input starting in Spring 2021.
- Develop London's draft Bike Parking Plan in Summer 2021.
- Distribute draft plan to City service areas and other partners for review in late Summer 2021.
- Present final draft Bike Parking Plan for Committee and Council review and approval in late 2021, early 2022.

### 2.3 Cycling Infrastructure

The City is well underway with construction of a number of new cycling infrastructure projects that will improve connections through and into the downtown area. The Dundas cycle track, the Colborne cycle track extension, and the Dundas-Thames Valley Parkway (TVP) connection represent 2.6 kilometres of new cycling infrastructure, and an \$8 million municipal investment in the City's active transportation network in 2020/2021.

New cycling infrastructure is also considered and implemented as part of ongoing infrastructure renewal projects. For 2021, this includes projects such as protected bike lanes on Dundas Street in OEV and new bike lanes on Brydges Street between Egerton and Highbury.

In order to support the implementation of future cycling and active transportation infrastructure initiatives, interviews for a new Program Manager, Active Transportation within Environmental & Engineering Services is underway and the position is expected to be filled later this year.

### 2.4 Measuring Progress on TDM

There is a need to develop methods to quantify and show progress in the TDM projects and programs the City is implementing. The City continues to implement projects that enhance opportunities for using options other than driving alone, including walking, cycling, taking transit, and carpooling. A performance measures program will help City staff track progress, develop effective solutions for Londoners' needs, and prioritize investments.

The TDM Performance Measures Program will detail how the measures can be tracked and what data are required. The Program will also assist staff in documenting how TDM projects and interventions relate to the Strategic Plan. Examples of TDM performance measures include:

Monitoring Categories	Examples of Measurement Area
1. Mode Use Data	<ul style="list-style-type: none"><li>• Mode share</li><li>• Average trip length by mode</li></ul>
2. Infrastructure	<ul style="list-style-type: none"><li>• Access to transportation options</li><li>• Quality of available transportation options</li></ul>
3. Experience Using Mode	<ul style="list-style-type: none"><li>• Perceived safety of modes</li><li>• Populations served</li><li>• Available information for using modes</li></ul>

Monitoring Categories	Examples of Measurement Area
	<ul style="list-style-type: none"> <li>• Multi-Modal Level of Service (LoS)</li> <li>• Collision data and locations</li> </ul>
4. Costs and Economic Benefits	<ul style="list-style-type: none"> <li>• Cost/benefit analysis</li> <li>• Travel time to reach destination</li> </ul>
5. Environmental and Climate Action Benefits	<ul style="list-style-type: none"> <li>• Energy consumption of various modes</li> <li>• Climate Change – greenhouse gas reduction</li> <li>• Exposure to air pollutants</li> <li>• Air quality impacts</li> </ul>

This project includes the following actions:

- Review performance measures used by other municipalities and guidebooks developed by North American transportation organizations;
- Develop the list of London TDM performance measures;
- Develop the tracking process;
- Seek City service areas and partner input;
- Determine how to present annual progress to the public and decision-makers; and
- Finalize report detailing the program.

#### **Next Steps and Timeline**

- Seek partner input in Fall 2021.
- Identify new learnings from Business Travel Wise Program (Section 2.5) and TMA work (Section 2.6) that may contribute to measuring progress.
- Finalize in Winter 2021/2022.

### **2.5 Business Travel Wise Program**

Since the early 2000s, the London’s Business Travel Wise Program has been the City’s means of engaging the London business community on employee commuter programs. Programs of this nature are typically the first step towards establishing more formal Transportation Management Associations (TMAs, Section 2.6)

Over the last few years, these activities were promoted under the banner of Commute Ontario, which is a program to expand commuter programs across Ontario. It is lead by SustainMobility, a non-profit working on Transportation Management Association efforts in the Greater Toronto and Hamilton Area (GTH-A). The Commute Ontario program ends in April 2021. One major element of the Business Travel Wise Program is the Regional Rideshare web-based carpool-matching service, operated by Pathways Intelligence on behalf of the City of London and our regional partners. This service was suspended at the beginning of the COVID-19 pandemic but re-launched in the Fall of 2020 with COVID guidance in place. Its operations are also coming to an end in April 2021 due to reasons unrelated to the pandemic.

This presents an opportunity for the municipal partnership (including London) to analyze the need to provide this service, especially with future commuting behaviour changes for some Londoners as a result of the pandemic (e.g., a shift towards working from home for knowledge workers). City staff are researching other existing carpool ridesharing services that are in operation in Ontario as the need for carpooling will resume once the pandemic has been resolved, particularly for those Londoners unable to work from home who work in areas where transit service does not meet their needs.

#### **Next Steps and Timeline**

- Determine next steps from Commute Ontario learnings Spring-Summer 2021.
- Determine next steps for Regional Rideshare Spring 2021.
- Determine what components can be offered to employers city-wide Fall 2021 into 2022, as work on Transportation Management Association develops.

## 2.6 Development of a Transportation Management Association (TMA)

In early 2020, City staff started work, funded by the federal Public Transit Infrastructure Fund (PTIF), to help determine whether a Transportation Management Association – a collaborative approach that helps local employers pool their resources and needs to support options other than single-occupant vehicle commuting – is a timely initiative for employers, the City, and local partners to pursue. This work included conducting a series of employee and employer surveys.

By connecting employers, employees, and government agencies, a TMA can provide a variety of services that encourage more efficient use of transportation and parking resources – things like incentives for choosing options like transit, cycling and walking, carpool matching and discount programs, parking management, and telework.

The COVID-19 pandemic disrupted the work that had been planned and many post-pandemic workplaces in London are expected to look different than they did in early 2020. It is expected that working-from-home will play a much larger role in the future. As noted by international consultancy, McKinsey & Company, with offices in five Canadian cities:

*...about 20 to 25 percent of the workforces in advanced economies could work from home between three and five days a week. This represents four to five times more remote work than before the pandemic and could prompt a large change in the geography of work, as individuals and companies shift out of large cities into suburbs and small cities (The Future of Work after COVID-19, February 18, 2021)*

What is not clear is how these potential changes will unfold in cities like London versus cities located in the GTH-A. In addition, how these changes may or may not impact London's Business Travel Wise Program and evolution towards a TMA and what new challenges and opportunities may result.

### Next Steps and Timeline

- Complete the feasibility study based on available information and potential scenarios and develop next steps.
- Report to Committee and Council.
- Hold virtual workshop for employers and partners in Fall 2021 to assess post-pandemic employee commuting.

## 2.7 Development of a Bike Share System

Bike Share is a service where bicycles are made available for shared use by individuals on a short-term basis for a price. The service allows a user to borrow a bike from one location and return it to another location.

A Request for Proposal (RFP) was issued in August 2020 for proposals to run a bike share system in London. As a result of the extenuating circumstances surrounding the pandemic, the City cancelled the RFP in late 2020. However, City staff did learn a lot more about the current state of the bike share service market, including the greater role that electric-assisted bicycles (e-bikes) are expected to play in new systems, as well as the operating cost benefits of providing both bikes and e-scooters as part of a coordinated micromobility service. As a result, City staff is developing a new micromobility RFP that better meets the needs of Londoners and the City, pending Council approval to allow e-scooter use in London as part of a pilot project.

### Next Steps and Timeline

- Release new micromobility (bike and e-scooter) share RFP in April or May 2021.
- Review proposals late Spring, early Summer 2021.
- Present recommended micromobility service proposal to Committee and Council for approval in Summer 2021.
- Work with operator, depending on outcome and Council approval, to identify service area locations in Summer 2021 and launch, if approved, in late 2021 or early 2022.



## 2.8 Permitting E-scooter Use and Potential Pilot Project

An e-scooter is a stand-up scooter powered by an electric motor. They are generally designed for use by adults with a large deck in the centre upon which the rider stands. They are a micromobility option (along with bike share and e-bike share) that is becoming more popular in many North American cities.



An e-scooter share system is a service in which electric motorized scooters are made available to use for short-term rentals. E-scooters are typically "dockless", meaning that they do not have a fixed home location and are dropped off and picked up from certain locations in a designated service area. The e-scooters are generally rented through a mobile app, although some system operators have provisions for those without mobile data access. They are meant for short point-to-point trips.

In January 2020, the Province of Ontario launched a five-year e-scooter pilot program. The pilot is intended to evaluate the use of both personal and shared e-scooters to examine their ability to safely integrate with other vehicle types and determine whether existing provincial rules of the road are adequate. As part of the pilot, Ontario municipalities first need to pass by-laws to define where e-scooters can operate and where they can be parked (e.g., setting up designated parking locations). More information on the provincial pilot is available at <http://www.mto.gov.on.ca/english/vehicles/electric/electric-scooters.shtml>

### Recent Ontario Activities

Activity in Ontario slowed down in 2020 due to the pandemic. Recent activities include:

- Ottawa has passed a by-law allowing personal and shared e-scooters. E-scooter share services were launched in 2020;
- Hamilton has passed by-laws to allow personal e-scooter use and shared e-scooter services;
- Mississauga has passed a by-law allowing personal e-scooters and is studying shared e-scooters;
- Windsor is looking at a by-law to allow shared e-scooter services in a designated pilot area;
- Waterloo Region (in 2019) ran an e-scooter share service on private property (specifically, property owned by the University of Waterloo). Waterloo Region is now seeking input on the use of personal e-scooters and shared e-scooter service on public property; and
- Brampton also ran a short-term, small-scale e-scooter share pilot project in one municipal park.

### Immediate Needs – Minimum Number of e-Scooters for a London Pilot Project

City staff recommend that the new micromobility RFP state a minimum of 250 e-scooters be provided. This number is based on experience in other Canadian e-scooter pilot municipalities, as well as the average number of e-scooters in systems across North America of London's size. Having 250 e-scooters to 100 bikes represents an

almost three-to-one ratio with one provider delivering both e-scooter and bike services, noting that the RFP proponent can propose more bikes or e-scooters with the rationale provided.

Background details to support this number (250 e-scooters) include:

- The North American Bikeshare Association's (NABSA) 2019 Shared Micromobility State of the Industry Report states that for medium cities across North America, the average number of e-scooters per system was 280. Medium cities are defined as 200,000-500,000 population (p. 10 of report <https://nabsa.net/wp-content/uploads/2020/10/NABSA-2020-State-of-the-Industry-Report.pdf>)
- Experience with other cities in Canada includes:
  - Ottawa launched with 600 e-scooters in their 2020 pilot (three service providers);
  - Kelowna launched with 760 e-scooters permitted over four companies;
  - Calgary permitted 2,800 in their pilot and scaled back to 1,500 for full operation;
  - Edmonton launched with 200 e-scooters across two companies. One company was permitted to bring in up to 1,500 e-scooters.

### Further Research and Future Report

City staff will provide CWC and Council with recommendations on allowing personal and shared e-scooters in London at an upcoming CWC meeting. The recommendations will be developed based on what other Ontario municipalities have permitted, input from City service areas, partner organizations and the public.

By-laws have recently been passed in Ottawa and Hamilton:

City of Ottawa <https://ottawa.ca/en/living-ottawa/laws-licences-and-permits/laws/law-z/e-scooters-law-no-2020-174#e-scooters-law-no-2020-174>

City of Hamilton Personal E-scooters  
<https://www.hamilton.ca/sites/default/files/media/browser/2020-12-21/20-269.pdf>

City of Hamilton Shared E-scooters  
<https://www.hamilton.ca/sites/default/files/media/browser/2020-12-21/20-270.pdf>

These example by-laws will also be used by City staff to form the basis for engaging service areas, partners and the public.

### **Next Steps and Timeline**

- Release new micromobility (bike and e-scooter) share RFP in April or May 2021.
- Seek internal service area and external partners' written feedback on allowing e-scooters use through briefing in Spring 2021.
- Seek preliminary public feedback on private e-scooter and public e-scooter share interest in Spring/early Summer 2021.
- Report to Council end of Summer/early Fall 2021 with proposed e-scooter use by-law.

## **2.9 Permitting Cargo E-bikes**

Cargo e-bikes are a type of electric-powered bike with a platform or box to carry larger items like packages and boxes for deliveries. Individuals use them for transporting larger items for personal use or children as passengers. Businesses use them as another way to deliver products.

In March 2021, the Province of Ontario launched a five-year cargo e-bike pilot program. The pilot is intended to evaluate the use of cargo e-bikes for both personal and commercial purposes. As part of the pilot, Ontario municipalities first need to pass by-laws to define where they can operate, where they can be parked (e.g., within spots for motor vehicles), and the operating parameters for cargo e-bike operators and businesses. Figure 1 and 2 are examples provided on the provincial website.



Figure 1 Example of Cargo e-Bike



Figure 2 Example of Cargo e-Bike

The Province released Guidelines for Municipalities (Appendix A). More information on the provincial pilot is available at <https://www.ontario.ca/page/cargo-e-bike-pilot-program> along with the Regulation: <https://www.ontario.ca/laws/regulation/210141>

### Further Research and Future Report

City staff will provide CWC and Council with recommendations on allowing personal and commercial use of cargo e-bikes in London at a future CWC meeting. The recommendations will be developed based on input from City service areas, partner organizations and the public. This engagement will run alongside the engagement process to determine how or if e-scooters should be permitted to operate in London.

The staff report will also include a discussion of possible cargo e-bike use in London's municipal fleet operations.

### **Next Steps and Timeline**

- Seek internal service area and external partners' written feedback on allowing cargo e-bike use through briefing and analysis in Spring 2021.
- Seek public feedback on private cargo e-bike interest in Spring/early summer 2021.
- Report to Council end of Summer/early Fall 2021 with proposed cargo e-bike by-law.

## **Conclusion**

This report identified a number of cycling and TDM projects on the go in 2021 and into 2022 that will have lasting benefits for Londoners' mobility and accessibility. Together they address several of Council's Strategic priorities, including taking action on climate change.

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**Prepared and Submitted by:** Jay Stanford, M.A., M.P.A. Director, Environment, Fleet and Solid Waste  
Doug MacRae, P.Eng, M.P.A. Director, Roads and Transportation

**Recommended by:** Kelly Scherr, P.Eng., MBA, FEC, Managing Director, Environmental & Engineering Services & City Engineer

Appendix A Ontario Cargo e-Bike Pilot Programs: Guidelines for Municipalities

c Transportation Advisory Committee  
Cycling Advisory Committee

# **APPENDIX A**

## **Ontario Cargo e-Bike Pilot Programs: Guidelines for Municipalities**

### **Increasing options for businesses to meet delivery demands**

Ontario has created a five-year pilot framework for permitting the use of larger cargo power-assisted bicycles (cargo e-bikes) on Ontario roads, should municipalities choose to allow their use within municipal boundaries.

Municipalities that want to allow cargo e-bikes to operate on their roads must pass by-laws to permit their use and set out specific requirements, based on what is best for their communities.

Municipalities may also inform the Ministry of Transportation that they are participating in the pilot by sending a notification to [SPDB@ontario.ca](mailto:SPDB@ontario.ca).

The Province has established the broad regulatory framework for cargo e-bikes. This includes the following vehicle and operating requirements.

### **Provincial Requirements**

#### **Provincial Vehicle Requirements**

The vehicle is a pedal-driven bicycle of conventional exposed fork-and-frame bicycle design and appearance that:

- has two or three wheels
- is fitted at all times with pedals that are always operable to propel the bicycle
- has a platform, basket, or container for carrying cargo, parcels or goods
- has steering handlebars
- has a width not exceeding 1.3 meters
- has a length not exceeding 4 meters
- has a height not exceeding 2.2 meters
- has wheels that have a width of not less than 35 millimeters and a diameter of not less than 350 millimeters
- does not have any structure that fully encloses the occupant area
- has an electric motor with a continuous rated output power not exceeding 1000 watts that is incapable of providing propulsion assistance when the motor vehicle attains a speed of 32 kilometres per hour or more

#### **Provincial Operating Requirements**

- No drugs or alcohol permitted when operating a cargo e-bike (consequences under the Criminal Code of Canada may apply)
- Where permitted, the vehicle must be operated in the bicycle lane or to the right-most side of the roadway
- Operator must be age 16 or over
- Not permitted to tow devices or vehicles
- Not permitted to carry dangerous or hazardous goods
- Not permitted to leave the vehicle in a location that is intended for the passage of vehicles or pedestrians (i.e., bicycle lane or sidewalk)
- Helmets are required for all riders regardless of age

- Passengers are permitted if the passenger is using a seat designed for passenger use that is manufactured for the vehicle
- When operated at a time (i.e., night-time or in poor weather) where persons and vehicles are not clearly discernible at a distance of 150 metres or less, cargo e-bikes must carry a lighted lamp displaying a white or amber light at the front and a lighted lamp displaying a red light at the rear (must be affixed to the vehicle, not the operator)

## **Municipal Considerations**

### **Municipal Operating Parameters**

Municipalities that want to allow cargo e-bikes to operate within their boundaries may wish to consider the below:

- Developing operating parameters for cargo e-bike companies and operators.
- Whether cargo e-bikes may be allowed to operate on sidewalks - sidewalks are for pedestrians, and operators should be considerate of persons with disabilities and/or limited mobility. Municipalities may wish to clearly communicate with companies about their expectations and requirements around contracts, business Licences, operating agreements, etc.

### **Municipalities to consider:**

- What are the most appropriate mechanisms to monitor, track and report on the use of cargo e-bikes under the pilot, including collisions?
- Where should cargo e-bikes be allowed to travel (e.g., bicycle lane, on roadways, bikepaths, etc.)?
- A limit on the number of cargo e-bikes allowed in certain areas to combat congestion?
- How will cargo e-bikes integrate with other road users (e.g., pedestrians, cyclists, and people using personal mobility devices)?
- Whether a visible numerical identifier may be required for each vehicle in use?
- What contractual terms are required for commercial operators to provide data (such as GPS coordinates) to municipalities?
- Where and when should vehicles be permitted to stop/park for deliveries?
- What mechanism is in place for citizens to provide feedback or complaints (i.e., surveys or use of 311 lines)?
- How to ensure training for operators to meet all Occupational Health and Safety Act requirements?

### **Parking**

The pilot program requires cargo e-bikes to be parked within spots for motor vehicles as these vehicles are not permitted to stop in places of passage for

motor vehicles or pedestrians. In addition, municipalities may wish to consider clearly defining where cargo e-bikes can park (e.g., setting up designated parking locations). Designated parking locations provides control over their use and reduces interference with the public.

**Municipalities may consider:**

- Should there be overnight responsibility for cargo e-bike parking non-compliance.
- Who may receive the penalty if a cargo e-bike is not parked in a designated location.
- What penalty structure should apply if a cargo e-bike is not parked in a designated location?

**Liability**

**Municipalities may consider:**

- What are the possible options for commercial cargo e-bike companies to indemnify the municipality and hold appropriate insurance requirements with a distinction in insurance coverage required for commercial cargo e-bikes?
- What is the possible appropriate insurance coverage for commercial cargo e-bikes -the type and coverage amount?

**Offences**

Similar to bicycles, *Highway Traffic Act* (HTA) rules of the road apply to the operation of cargo e-bikes in Ontario. Penalties in HTA s. 228(8) also apply to violations of the pilot regulation (fine of \$250 to \$2,500). By-law offences may also apply. There are serious consequences for a cargo e-bike operator impaired by drugs, alcohol or both under the *Criminal Code of Canada*.

**Data Collection**

The Ministry of Transportation (MTO) requires data from municipalities to evaluate this pilot and determine any potential amendments required, if needed. Municipalities are required to provide information to the ministry if a municipal by-law is enacted to permit the use of cargo e-bikes on any roads within the municipality during the term of the pilot.

MTO will be evaluating the road safety impact of the pilot program and will require accurate and reliable data on all cargo e-bike collisions to do this effectively. Collisions, as defined in the Highway Traffic Act (HTA), must be reported using the Motor Vehicle Collision Report (MVCR) form (SR-LD-401) or an electronic collision data system when a reportable collision involving a

cargo e-bike occurs. Collisions involving cargo e-bikes that do not meet the criteria of a reportable collision should be documented using your jurisdiction's incident reporting procedures. Municipalities are required to remit incident/collision and injury- related data to the province.

### **More Information**

This document is a guide only. For official purposes, please refer to the Ontario Highway Traffic Act and its regulations. For more information, please visit [Ontario.ca/MTO](https://www.ontario.ca/MTO).

Source: Province of Ontario <https://www.ontario.ca/page/ontario-cargo-e-bike-pilot-program-guidelines-municipalities>