

Report to Community & Protective Services Committee

To: Chair and Members
Community & Protective Services Committee

From: Kelly Scherr, P.Eng., MBA, FEC
Deputy City Manager, Environment & Infrastructure

Subject: Update on Provincial Electric Kick-Scooter and Cargo Power-assisted Bicycle Pilots

Date: March 17, 2025

Recommendation

That on the recommendation of the Deputy City Manager, Environment & Infrastructure, with respect to the City's participation in the provincial Electric Kick-Scooter (e-scooter) and the Cargo Power-assisted Bicycle (cargo e-bike) pilots:

- a) This report **BE RECEIVED** for information; and
- b) Civic Administration **BE DIRECTED** to share these findings with the Ontario Ministry of Transportation (MTO) as part of their annual reporting requirements for participating in these two pilots, London Police Service and the Middlesex-London Health Unit.

Executive Summary

The purpose of this report is to provide Committee and Council with an overview and analysis of both the provincial Electric Kick-Scooter Pilot and the Cargo Power-assisted Bicycle Pilot programs. City Council authorized the use of these micromobility vehicles on March 7, 2023. This included passing the Electric Kick-Scooter and Cargo Power-assisted Bicycle By-law.

This report discusses learnings from traffic counts, safety concerns (i.e., injury and collisions), inquiry reporting, and community engagement. For the summer of 2023, Council approved assigning City staff resources to undertake a data collection program and an education and awareness-raising campaign. In 2024, kick e-scooter activities were part of the existing promotion and awareness programs for mobility services and did not include additional "in the field" research and engagement.

Key findings include:

- Overall, about one e-scooter per hour was observed using two different counting methods. This represents about 2 to 3 per cent per hour of all micromobility vehicles. There was a limited number of cargo e-bikes in use (if any);
- Reported collisions involving e-scooters were provided by London Police Service. There were 8 in 2023 and 12 in 2024;
- Reported single system injuries involving e-scooters (i.e., an injury that affects only one specific body system or organ) were provided by London Health Sciences Centre Health Information Management. There were 51 reported injuries in 2023 and 64 in 2024. This does not include any e-scooters injuries that may have been classified as part of multi-system injuries (i.e., an injury that affects multiple body systems or organs at the same time);
- The total number of e-scooter inquiries and concerns received by the City of London in 2023 was 13 and 12 in 2024. This does not include general inquiries, concerns and discussion that occurred at the Integrated Transportation Community Advisory Committee (ITCAC) and the Accessibility Community Advisory Committee (ACAC);

- In 2023 and 2024 there was no proactive enforcement of the Electric Kick-Scooter and Cargo Power-assisted Bicycle By-law by either London Police Service or City of London Municipal Compliance staff due to very low volumes of both users and concerns;
- Most e-scooter riders (about 2/3rds) were observed using roads or bike lanes; and
- Ninety per cent of observed e-scooter riders at in-person counts were perceived as not speeding (based on the posted speed at that location).

The Ministry of Transportation Ontario (MTO) has annual reporting for each pilot program. The Province is gathering this information from all participating municipalities to help determine if e-scooters and cargo e-bikes will be allowed permanently in Ontario and if so, what province-wide rules will be provided.

Linkage to the Corporate Strategic Plan

Municipal Council continues to recognize the need for a more sustainable and resilient city in its 2023-2027 Strategic Plan for the City of London. Specifically, London's participation in the two provincial pilots provides information that addresses the following areas of focus:

- Wellbeing and Safety
- Safe London for Women, Girls, and Gender-Diverse and Trans People
- Economic Growth, Culture and Prosperity
- Mobility and Transportation
- Climate Action and Sustainable Growth
- Well-Run City

On April 12, 2022, Municipal Council approved the Climate Emergency Action Plan which includes Area of Focus 4, Transforming Transportation and Mobility. Participation in these pilot programs provides London residents with additional mobility options to reduce the proportion of trips made by single occupancy vehicles and their associated greenhouse gas emissions. London's Mobility Master Plan is currently being developed. Data from these pilots can inform the Plan by highlighting micromobility baseline rates and mode split, and interest in their use.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter:

Relevant reports that can be found at www.london.ca under Council meetings include:

- Proposed Approach to Review E-Scooters in London (January 7, 2020 meeting of Civic Works Committee (CWC), Agenda Item # 2.8)
- Cycling and Transportation Demand Management Upcoming Projects (March 30, 2021 meeting of CWC, Agenda Item # 2.12)
- 6th Report of the Accessibility Advisory Committee (July 27, 2021 meeting of Community and Protective Services Committee, Agenda Item # 4.2)
- 7th Report of the Transportation Advisory Committee (August 31, 2021 meeting of CWC, Agenda Items # 4.1 and 4.2)
- Participation in Provincial E-scooter Pilot (June 21, 2022 meeting of Civic Works Committee, Agenda Item 4.2)
- Participation in Provincial Cargo E-Bike Pilot (June 21, 2022 meeting of Civic Works Committee, Agenda Item # 4.1)
- Electric Kick-Scooter and Cargo Power-assisted Bicycle Pilot Project By-law and By-law Amendments (February 22, 2023 meeting of Civic Works Committee, Agenda Item # 2.3)
- City's Response to MTO Electric Kick-Scooter Pilot Extension (November 12, 2024 meeting of Civic Works Committee, Agenda Item # 2.5)

1.2 Electric Kick-Scooters

An electric kick-scooter is a stand-up scooter powered by an electric motor (Figure 1). They are designed for use by anyone at least 16 years old with a large deck in the centre upon which the rider stands.

Figure 1: Example of an Electric Kick-Scooter



(Photo credit: Solar Scooters)

In January 2020, the Province of Ontario launched the five-year Electric Kick-Scooter Pilot Program. In the Fall of 2024, the Province extended the pilot by five years, to November 2029. The pilot is intended to evaluate the use of both personal and shared electric kick-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 electric kick-scooters can operate when on municipal property. London City Council authorized personal use for the pilot on March 7, 2023. As part of the by-law, commercial (shared) services are prohibited in London.

More information on the provincial Electric Kick-Scooter Pilot Program is available at <http://www.mto.gov.on.ca/english/vehicles/electric/electric-scooters.shtml>

1.3 Cargo Power-assisted Bicycle

The Province of Ontario defines a cargo power-assisted bicycle as a power-assisted bike weighing more than 55 kilograms, with a large platform or box to carry items like packages and boxes for deliveries (Figure 2) or transporting people. Power-assisted bicycles under 55 kilograms, including those with a platform or box, are defined as electric bicycles and are under different rules in Ontario.

Figure 2: Example of a Cargo Power-assisted Bicycle for Deliveries



(Photo credit: Ministry of Transportation Ontario)

In March 2020, the Province of Ontario launched the five-year Cargo Power-assisted Bicycle Pilot Program. It ends March 1, 2026. The pilot is intended to evaluate both personal and commercial uses of cargo power-assisted bicycles, 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 cargo power-assisted bicycles can operate when on municipal property. London City Council authorized personal and commercial use for the pilot on March 7, 2023.

More information on the provincial Cargo Power-assisted Bicycle Pilot Program is available at <https://www.ontario.ca/page/cargo-e-bike-pilot-program>

2.0 Summary of Key Findings

Several key findings were obtained from the summer 2023 data collection and education campaign. Some data continues to be compiled annually by others and is also part of the findings. Detailed information is presented in Appendix A with background information provided in Appendices C to D.

It is important to recognize the limitations of some of the data collection in the field. These data represent best available local information and are not representative of activities across all of London. In the case of data compiled by London Police Service and London Health Sciences Centre (LHSC), data is compiled using methodologies available to these organizations. A summary of key findings is below:

2023 Micromobility (Including E-scooters and Cargo E-bikes) Counts

Two methods of micromobility counts were conducted between May and October of 2023 to estimate the rates of electric kick-scooter and cargo power-assisted bicycle use:

- In-person counts were conducted at four Thames Valley Parkway locations; and
- Miovision (video) counts were conducted at eight intersections. Miovision is a company that provides traffic data collection and management tools to cities, including London. Their traffic video recording tool was used. Recordings were then played back to count the number of micromobility vehicles and make observations on rider behaviour.

Total micromobility and e-scooters counts are presented in Table 1 for both data collection methods. Both methods determined that there were very low counts for e-scooters. In both cases, regular bikes were between 82 and 85 per cent.

Table 1: Total Micromobility and E-scooter Counts

Method	All Micromobility Counts Per Hour	Estimated E-scooter Counts Per Hour	Percentage
In-person counts	43	1	2%
Miovision video counts	22	1	5%

There were only 8 observations of cargo e-bikes potentially over 55 kg between May and October. There is no way to confirm the observations, and to staff's knowledge, there is no local outlet to purchase cargo power-assisted bicycles. Therefore, it is possible that these were larger cargo e-bikes under 55 kg (i.e., not part of the provincial pilot). Minimal learnings can be drawn from this lack of observations. This is reflected in the results.

Collisions

For the 2023-2024 period, London Police Service provided data for collisions involving an e-scooter (Table 2). There were no collisions reported specific to cargo power-assisted bicycles.

Table 2: E-scooter Collision Data

Year	Number of Collisions involving E-scooters
2023	8
2024	12

Source: London Police Service

Injuries

For 2023 and 2024, London Health Sciences Centre staff provided the number of single-system (i.e., an injury that affects only one specific body system or organ) e-scooter injuries (Table 3).

The number of multi-system (i.e., an injury that affects multiple body systems or organs at the same time) injuries for both e-scooter or e-bike treated at LHSC – Victoria Hospital is found in Table 4. It is not possible at this time to differentiate multi-system injuries for e-scooters vs. e-bikes. Data from St. Joseph's Health Care were not available.

Table 3: Number of Cases of Single-system Injury for E-scooters at LHSC

Year	Number of Cases
2023	51
2024	64

Source: London Health Sciences Centre Health Information Management

Table 4: Number of Trauma Cases (multi-system injuries) for E-scooters or E-bikes at LHSC

Year	Number of E-scooter or E-bike Trauma Cases*
2023	15
2024	26

Source: London Health Sciences Centre Trauma Program

* These cases could include serious injuries that occurred outside of London, as Victoria Hospital is a trauma centre for the region.

Data collection methods do not currently allow for determining if any injuries involved with cargo e-bikes over 55 kg in London.

Inquiries and Concerns Reported to the City of London

Since the Electric Kick-Scooter and Cargo Power-assisted Bicycle By-law was passed, City staff have been tracking the inquiries received about electric kick-scooters and cargo power-assisted bicycles through various channels:

- directly to City staff;
- via cycling@london.ca; and
- directly to Service London.

The number of e-scooter inquiries by topic received in 2023 and 2024 are identified on Table 5. The main concerns raised were the speed of e-scooters, sidewalk riding, and the quiet operation which could lead to potential collision occurrences with pedestrians and motor vehicles.

Table 5: Number of E-scooter Inquiries and Concerns Received in 2023 and 2024

Type of Inquiries	2023	2024
E-Scooter Bylaw Inquiry	4	0
Shared System Inquiry	5	3
Safety Concerns/Need for Enforcement	2	5
Sidewalk Riding Complaint	1	4
Grant Program Inquiry to Purchase E-Scooter	1	0
Total	13	12

Not included on Table 5 are the general inquiries, concerns and discussion that occurred at the Integrated Transportation Community Advisory Committee (ITCAC) and the Accessibility Community Advisory Committee (ACAC). Both Advisory Committees provide direct or indirect advice to Standings Committee of Council or during Advisory Committee meeting when City staff and/or Councillors may be in attendance.

By-law Enforcement

Low volumes of both users of these micromobility devices and reported concerns did not necessitate enforcement in 2023 and 2024 of the Electric Kick-Scooter and Cargo Power-assisted Bicycle By-law by either London Police Service or City of London Municipal Compliance staff. When the volume of complaints received necessitates proactive action, Municipal Compliance will implement their enforcement measures to address the situation. Once the number of complaints justifies a proactive blitz, both LPS and Municipal Compliance will be contacted to coordinate efforts based on current priorities.

Perceived Age

The Provincial Pilot sets the minimum age to ride an e-scooter at 16. During in-person counts, the percentage of riders observed under the age of 16 was low at approximately 2 to 3 per cent. About 60 per cent of the riders are between 18 and 39 years old. Perceived age was not possible to observe from Miovision counts.

Note that the use of the word perceived refers to how old a person looks to the observer.

Riding E-scooter on Sidewalks

Overall, most e-scooter riders (about two thirds) were observed using roads or bike lanes at all locations except Jalna Boulevard and Bradley Avenue. The use of sidewalks during observation periods was specific to each location. It depended on what cycling facilities were available, and the amount of motor vehicle traffic or the amount of pedestrian traffic at the location. Riding an e-scooter on a sidewalk is not permitted under the City's by-law.

Perceived Speeding

Ninety per cent of observed e-scooter riders at in-person counts were perceived as not speeding (based on the posted speed at that location). Speeding was not possible to observe from Miovision counts.

Note that the use of the word perceived refers to how fast a person looks like they are traveling compared to the posted speed limit by the observer.

Perceived Helmet Use

Roughly one-third of all e-scooter riders were perceived to be wearing a helmet. It was too difficult to gauge this from the Miovision count footage.

Note that the use of the word perceived refers to the ability of the observer to identify if a helmet is being worn or not (e.g., the person went by too quickly to identify, they were hidden by another pathway user).

3.0 Financial Impact/Considerations

There are no financial considerations at this time. The E-scooter and Cargo E-bike pilots will continue with existing resources recognizing that there will be no scheduled field observations and data collection in the field in 2025.

4.0 Next Steps

With the Province's extension of the Electric Kick-Scooter Pilot Program to November 2029, City Council has extended the portions dealing with electric kick-scooters in the Electric Kick-Scooter and Cargo Power-assisted Bicycle By-law by one year, to November 27, 2025. It could be prolonged on an annual basis until the Pilot ends November 27, 2029. This allows for annual review of collision and injury data and reaching out to partners.

Moving forward, an evaluation methodology will be refined for the 2025 summer season and annually after that for collecting consistent data on collisions, injuries, and public feedback. Also, this data is of use in informing the Mobility Master Plan's short and medium-term actions. The option of using automated count technologies at strategic locations will also be explored as part of the City's existing traffic data collection program.

Community engagement and communication about the pilot will continue, using existing and any newly identified opportunities, such as partner newsletters or events.

City staff will continue to connect with other municipalities participating in the provincial pilots, learn from shared electric kick-scooter services and commercial use of cargo power-assisted bicycles, and participate in meetings led by the MTO.

Conclusion

London's multi-purpose summer 2023 data collection program was focused on personal e-scooters. This has provided valuable local insight and is an important contribution to the Province as most other participating municipalities have focused on shared (rental) e-scooter systems that automatically track use through an app. There will be useful learnings for the City of London from other participating municipalities. Civic Administration looks forward to the MTO sharing these findings to ensure consistency in how vehicle use and rider behaviour is captured across the Province.

Learnings from the first two years of the pilot programs (2023, 2024) will inform the next stage of the City's implementation measures. The Cargo Power-assisted Bicycle Pilot Program ends March 1, 2026, and the Electric-Kick Scooter Pilot Program ends November 27, 2029. The next report on e-scooters will be in the fall 2025 regarding continuing participation in the MTO pilot and adjustments to the City By-law.

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Appendix A: Detailed Findings
Appendix B: Micromobility Field Guide
Appendix C: Sample Count Forms
Appendix D: Community Engagement

APPENDIX A

Detailed Findings

The Province requires participating municipalities to provide data during the pilots. To accompany the update of municipal by-laws, Council approved assigning City staff resources during the first summer season in 2023 to undertake an education and awareness-raising campaign. The purpose was to ensure users understood their responsibilities, Londoners knew where to expect e-scooters and cargo power-assisted bicycles to operate, and the rules in place governing them. In addition, a data collection program was carried out to get a sense of how many personal e-scooters and cargo power-assisted bicycles were in use and identify any recurring issues.

The methodology for data collection and reporting used in London has been informed by other participating municipalities' efforts to date. Two methods of traffic counts (i.e., in-person and using Miovision video technology) were conducted between May and October of 2023 to estimate the rates of electric kick-scooter and cargo power-assisted bicycle use, and observe behaviours among riders on these types of micromobility vehicles:

- personal electric kick-scooter
- cargo e-bike (>55 kg)
- e-bike (<55 kg)
- regular bike
- other motorized micromobility (e.g., hoverboard, e-skateboard)
- other non-motorized micromobility (e.g., in-line skates, skateboard, scooter)

Appendix B is the field guide developed to define which vehicles were to be counted.

Metrics and locations were informed by conversations with internal City Divisions (Transportation Planning & Design, Traffic Engineering, Parks Design & Construction) and partners from the London-Middlesex Road Safety Committee.

In-person counts

In-person counts were conducted between May and August 2023 at four locations along the Thames Valley Parkway (TVP):

- Gibbons Park
- Ivey Park
- Greenway Park
- Vauxhall Park

Locations were selected based on proximity to downtown (e.g. reasonable commuting distance), and covering all three branches of the TVP. Staff attended shifts by walking or using the City's e-bike. Supplies needed for the counts were an iPad/iPhone with cellular data, and a high-visibility vest.

Additional smaller sessions of in-person counts were completed at Gibbons Park, and Highbury Avenue at Cheapside Street, between September and October of 2023. Locations were selected based on proximity to Western University and Fanshawe College, to collect additional usage data when post-secondary students returned for the school year.

The first four sessions followed the same schedule of 12 data collection shifts. For each session, all four locations were scheduled for three data collection shifts:

- Morning - 7:30 a.m.-9:30 a.m. (9:00 a.m.-11:00 a.m. on weekends)
- Afternoon - 3:30 p.m.-5:30 p.m.
- Evening - 6:00 p.m.-8:00 p.m.

Approximately two shifts per session were scheduled on a weekend, with approximately equal distribution across morning, afternoon, and evening sessions.

The fifth session (Gibbons Park and Highbury Avenue at Cheapside Street) followed a different schedule model. Times were selected during estimated work and school commutes to Western University and Fanshawe College. Both September 13-14th, and October 4-5th had two shifts per day:

- Morning – 8:00 a.m.-9:00 a.m.; and
- Evening – 4:30 p.m.-5:30 p.m.

Each location had a morning and evening shift per week. For example, Gibbons Park was attended in the evening and the following morning. Highbury Avenue at Cheapside Street was attended in the morning, and the evening on the following day.

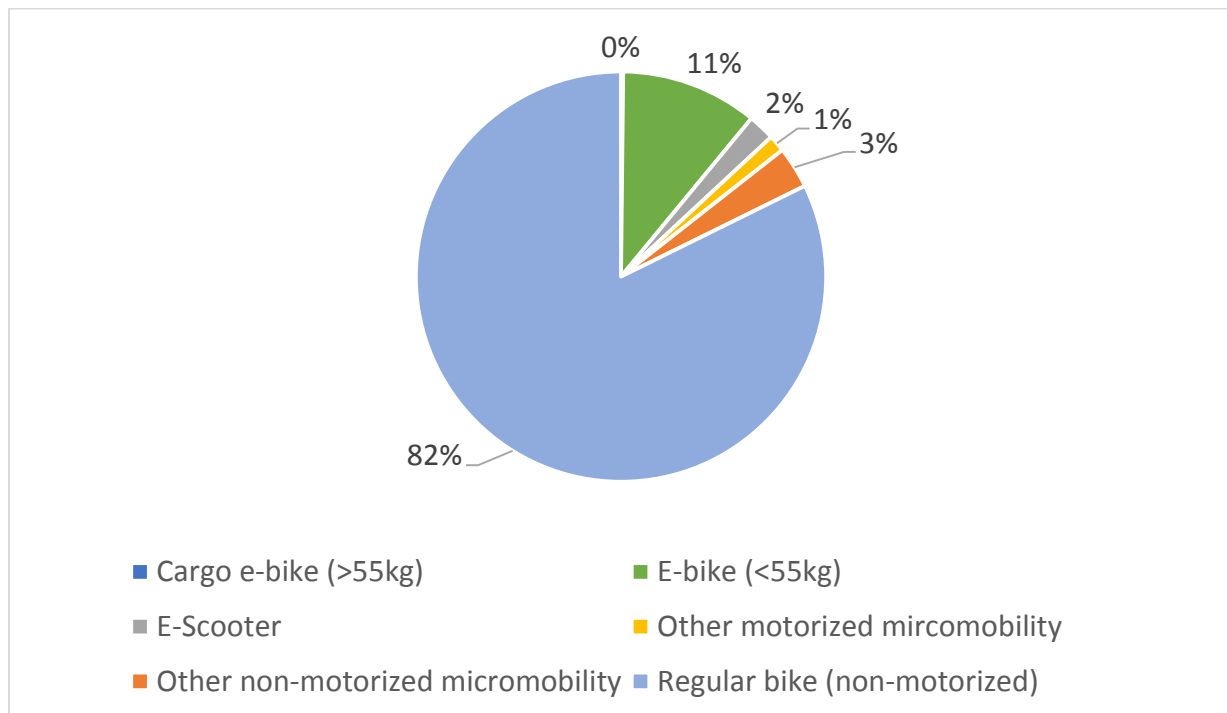
In-person counts used a Microsoft form to collect data points of riders when crossing the counter's line of vision. Perceived behaviours were the staff person's best estimate as the rider went by. Data collected included vehicle type, direction, approximate age, perceived gender expression, helmet use, bell/horn use, lights/reflectors use, use of hand signals, overtaking another vehicle or pedestrian, and perceived speeding. The facility used (i.e., bike lane, road, or sidewalk) was also recorded at the Highbury Avenue at Cheapside Street location. Full details of the form can be found in Appendix C.

In-person counts were best to identify details such as age, gender, helmet use, lights and reflector use, bell use, and speeding. Limitations to in-person counts included observation points that were more challenging for large intersections, and live counting (i.e., could not pause, rewind, or slow down) limited the details that could be collected at busy times or when groups of riders went by. Adverse weather and personal safety were causes for any shortened, rescheduled, or cancelled data collection shifts.

It should be noted that there were only 8 observations of cargo e-bikes over 55 kg between May and October. Those were seen along the Thames Valley Parkway (TVP). Seven of the eight observations were riders carrying people. There is no way to re-confirm the observations so it is possible that these were larger cargo e-bikes under 55 kg (i.e., not part of the provincial pilot). This size of vehicle is already more prevalent in London. This lack of observations is noted throughout the results below.

Figure A-1 presents the breakdown of total percentage of observed vehicles at all in-person locations.

Figure A-1: Total percentage of Observed Micromobility Vehicles at All In-person Locations



The overall percentage breakdown for all in-person counts of e-scooter use was 2 per cent. In comparison, regular bikes accounted for 82 per cent of all in-person observations. The locations with the highest e-scooter use were:

- Cheapside and Highbury (10 per cent)
- Ivey Park (3 per cent)

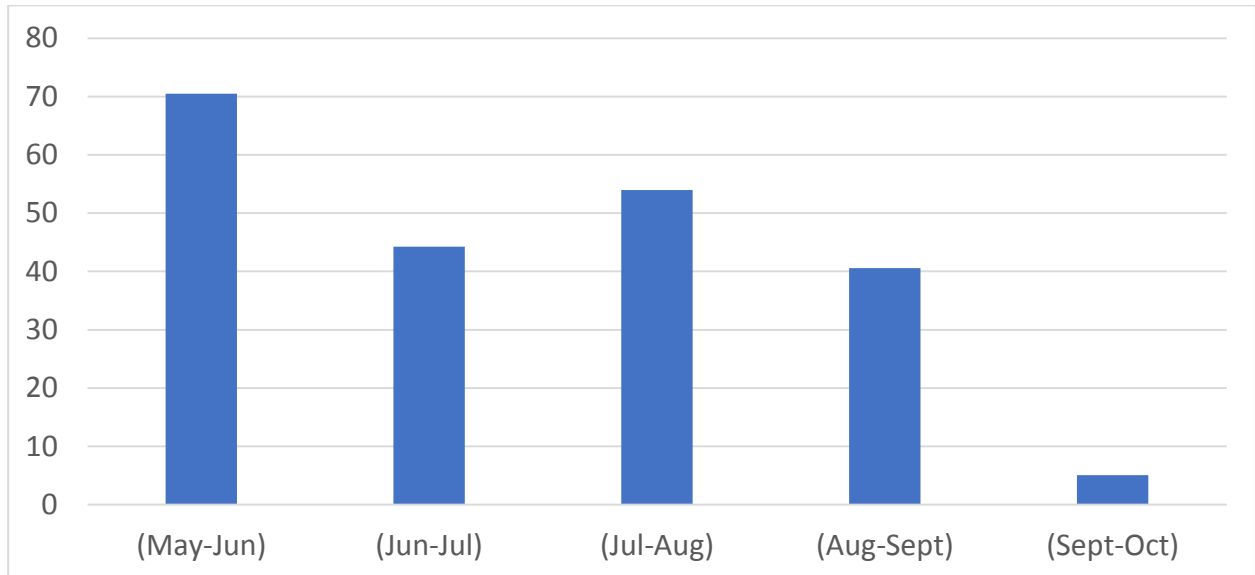
On average, e-scooters represent about 2 per cent of the total 4,739 in-person micromobility observations (or 95 e-scooters).

The overall percentage of cargo power-assisted bicycles – cargo e-bikes - (>55 kg) was less than one per cent, which shows as zero per cent in the table. This translates to eight

occurrences over the entire program. As there are no retail points of purchase for this vehicle, it is difficult to confirm that these were indeed cargo e-bikes over 55 kg.

E-scooters represented about 5 per cent of the total 6,346 Miovision micromobility observations (or 347 e-scooters). Figure A-2 shows the average number of all micromobility vehicles counted per hour across all locations between May and October. There was an average of 43 micromobility vehicles of all types per hour which included about 1 e-scooter per hour.

Figure A-2: Average Micromobility Vehicle Count per Hour Over the 2023 Season



The Fall count session is much lower because it only included two locations, Gibbons Park and Highbury Avenue at Cheapside Street, and only two count periods per day.

Miovision counts

Miovision counts were conducted using traffic camera video recordings at eight intersections in three sessions, during the data collection period between June and August of 2023:

- Richmond Street at Dundas Street
- Colborne Street at Dundas Street
- Colborne Street at Pall Mall Street
- English Street at Dundas Street
- Wortley Road at Elmwood Avenue
- Ridout Street at Baseline Road
- Jalna Boulevard at Bradley Avenue
- Hastings Drive (west leg) at Fanshawe Park Road

All three sessions followed the same schedule model of 18 data collection shifts. For each session, all eight locations were scheduled for 12 data collection shifts – two shifts each during the morning, afternoon, and evening: 1) morning – 7:30-9:30 a.m. (9:00-11:00 on weekends), 2) afternoon – 3:30-5:30 p.m., 3) evening – 6:00-8:00 p.m. For each location, shifts for each session were completed in consecutive days – Monday/Tuesday, Wednesday/Thursday, and Friday/Saturday. The days for shifts rotated for each location so that each location had data for all times of day, and days of the week (Monday to Saturday), by the end of the data collection period.

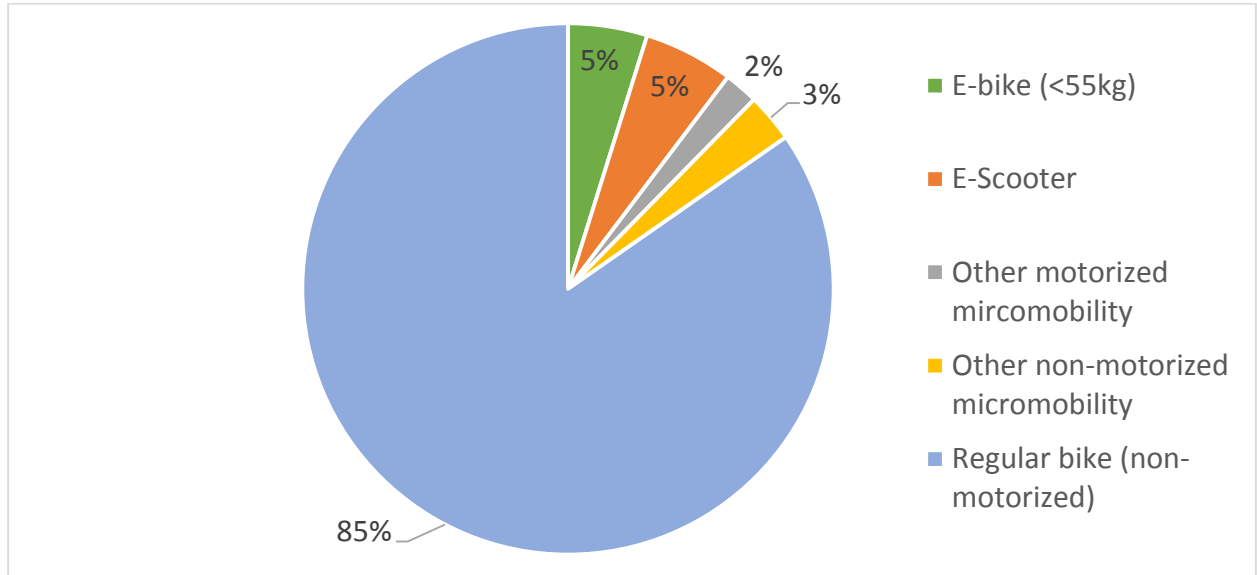
The recordings captured imagery of the entire intersection, to explore travel use and behaviour in each direction, in bike lanes, on roads and on sidewalks. Locations were selected based on proximity to the downtown core and cycling facilities. Approximately half of the locations were within higher density, downtown core, with the remaining locations covering lower density, suburban areas of London.

A Microsoft form was used to collect data points of riders when crossing the intersection recording. Vehicle type, direction, facility used (i.e., bike lane, road, or sidewalk), use of hand signals, helmet use, perceived gender expression, and other behaviours were observed. The Miovision form can be found in Appendix C.

The personal safety of the observer, impacts from adverse weather, and visibility of intersections were elements that favoured data capture using Miovision. Miovision recordings could also be viewed at any time, as well as paused, rewind, or slowed down during periods of high-volume traffic, to reduce the number of errors or missed vehicles. There were limitations to Miovision counts – details such as age, gender, helmet use, light/reflector use, bell use, and speeding were difficult to identify using Miovision. These results are best drawn from in-person count methods.

Figure A-3 shows the percentage of micromobility vehicles observed across all Miovision locations. Most vehicles were regular bikes.

Figure A-3: Total Percentage Micromobility Vehicles Observed with Miovision



The overall percentage breakdown for all in-person counts of e-scooter use was 5 per cent or about 1 e-scooter per hour.

The locations with the highest e-scooter use were:

- Cheapside and Highbury (10 per cent)
- Ivey Park (3 per cent)

There were no observations of cargo power-assisted bicycles (>55 kg) using Miovision.

Collisions and Injuries

The relationship between collision and injury data is not known at this time. In Ontario, the data sets for these new micromobility vehicles are gathered by different organizations. In addition, collision and injury data for other users, such as pedestrians and cyclists, have not been compared to e-scooter data. This can be investigated as part of a future report, or is an opportunity for further analysis at the provincial level.

Collisions

Law enforcement data can identify concerns related to electric kick-scooter collisions, incidents, and offenses. As of January 29, 2023, Ontario’s Motor Vehicle Collision Reporting (MCVR) form has added a vehicle type specific to electric kick-scooters, to provide consistent recording across jurisdictions in Ontario. The MCVR form includes a vehicle type for e-bikes, which includes cargo power-assisted bicycles.

Table A-1 shows the data provided by the London Police Service (LPS) on the number of collisions reported through the Collision Reporting and Occurrence Management System (CROMS).

Table A-1: E-scooter Collision Data

Year	Number of Collisions involving E-scooters
2023	8
2024	12

Source: London Police Service, CROMS

Note that the data does not speak to what other vehicle types were involved in the collisions, who was at fault, or any tickets issued. Also, LPS could not provide any data on complaints received about e-scooters.

There were no collisions reported specific to cargo power-assisted bicycles.

Injuries

London Health Sciences Centre (LHSC) provided data for electric kick-scooter injuries for 2023-2024. This includes visits to all LHSC campuses (Victoria Adult and Children emergency rooms and University Hospital emergency room). It does not include visits to St. Joseph’s Health Care Urgent Care Centre.

Obtaining a complete data picture for e-scooter injuries is complex. Canada’s health system uses the International Statistical Classification of Diseases and Related Health Problems (ICD-10-CA). Since April 2022, the ICD-10-CA has included the diagnostic code W02.080, “fall involving electric (motorized) scooter”, to specify fall injuries from electric kick-scooters. The code does not capture collisions of any kind.

There is no specific code for e-scooter collisions. They are grouped with other vehicles, such as motorcycles and e-bikes. Currently, it is not possible to pinpoint collisions that are specific to e-scooters.

Table A-2 shows single-system e-scooter injuries (i.e., an injury that affects only one specific body system or organ) under code ICD 10 Code W02.080 by year. The code includes all injuries for a fall from an e-scooter.

Table A-2: Number of Cases of Single-system Injury at LHSC

Year	Number of Cases
2023	51
2024	64

Source: London Health Sciences Centre Health Information Management

Table A-3 shows the number of multi-system (i.e., an injury that affects multiple body systems or organs at the same time) injuries for both e-scooter or e-bike treated at LHSC – Victoria Hospital. It is not possible at this time to differentiate multi-system injuries for e-scooters vs. e-bikes. Data from St. Joseph’s Health Care were not available.

Table A-3: Number of Trauma Cases (multi-system injuries) for E-scooters or E-bikes at LHSC

Year	Number of E-scooter or E-bike Trauma Cases*
2023	15
2024	26

Source: London Health Sciences Centre Trauma Program
 * These cases could include serious injuries that occurred outside of London, as Victoria Hospital is the Trauma Centre for the region.

There is not a specific code under the International Statistical Classification of Diseases and Related Health Problems coding system for cargo power-assisted bicycles. It is not possible to obtain injury data for this type of vehicle at this time.

Inquiries and Concerns Reported to the City of London

Since the Electric Kick-Scooter and Cargo Power-assisted Bicycle By-law was passed, City staff have been tracking the inquiries received about electric kick-scooters and cargo power-assisted bicycles through various channels: 1) directly to City staff, 2) via cycling@london.ca, and 3) through Service London.

Over 2023-2024, a total of 25 inquiries were received from Londoners regarding electric kick-scooters. Table A-4 details the number of e-scooter inquiries by topic received in 2023 and 2024. The main concerns raised were the speed of e-scooters, sidewalk riding, and the quiet operation which could lead to potential collision occurrences with pedestrians and motor vehicles.

Table A-4: Number of E-scooter Inquiries Received in 2023 and 2024

Type of Inquiries	2023	2024
E-Scooter Bylaw Inquiry	4	0
Shared System Inquiry	5	3
Safety Concerns/Need for Enforcement	2	5
Sidewalk Riding Complaint	1	4
Grant Program Inquiry to Purchase E-Scooter	1	0
Total	13	12

One email inquiry related to cargo power-assisted bicycles was received in 2023. It was regarding more information on commercial use of the vehicles.

By-Law Infractions

Low volumes of both users of these micromobility devices and reported concerns did not necessitate enforcement in 2023 and 2024 of the Electric Kick-Scooter and Cargo Power-assisted Bicycle By-law by either London Police Service or City of London Municipal Compliance staff. When the volume of complaints received necessitates proactive action, Municipal Compliance will implement their enforcement measures to address the situation. Once the number of complaints justifies a proactive blitz, both LPS and Municipal Compliance will be contacted to coordinate efforts based on current priorities.

Further discussions will occur with LPS and Municipal Compliance based on available details from London and other communities participating in the pilot.

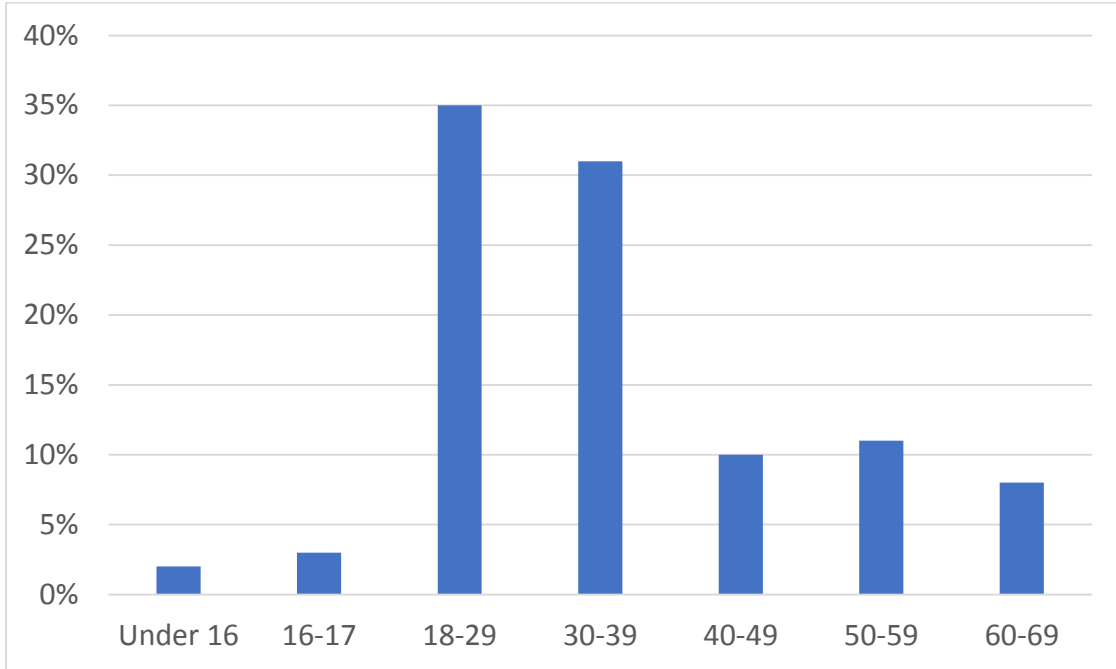
Other Observations for E-scooters

Age, gender and speeding are described as “perceived”, meaning that the staff person conducting the counts and observations made their best estimate as the rider went by.

Perceived Age

The count program included observations of perceived age. It was relatively easy to gauge the age of riders as they went by with in-person counts, but it was too difficult to gauge riders’ age from the Miovision video quality. Figure A-4 presents the breakdown of age category for e-scooters riders at all in-person locations.

Figure A-4: Percentage breakdown by Perceived Age Category at All In-person Locations

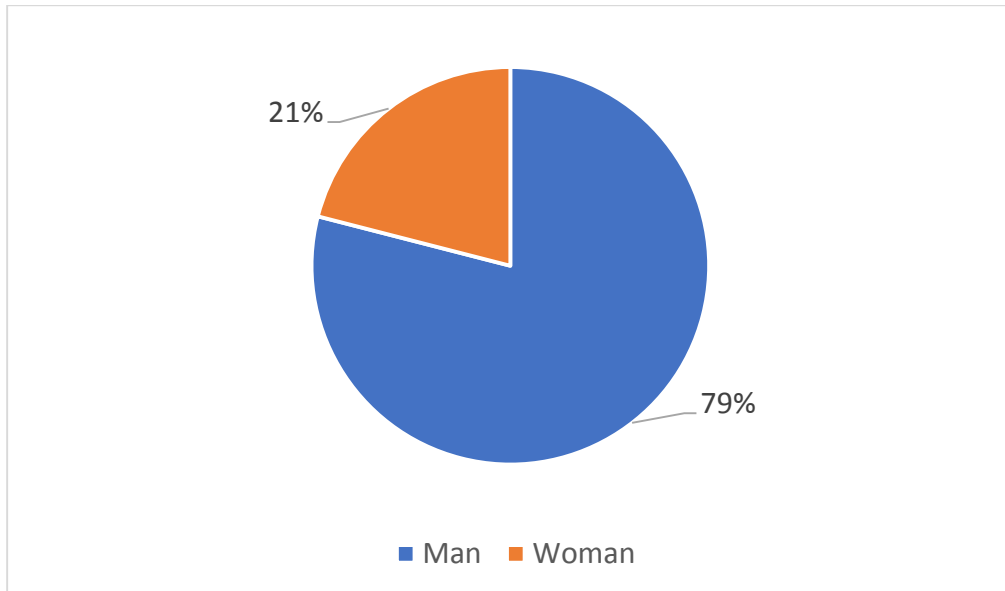


The data show that the perceived age of riders is weighted towards younger adults. The percentage of riders under the age of 16 was very small. This is good as the provincial pilot sets the minimum age to ride an e-scooter at 16. There were no riders 70 or older observed riding an e-scooter.

Perceived Gender

Figure A-5 presents the perceived gender breakdown for e-scooter riders at all in-person locations. To note, it was too difficult to gauge gender from the Miovision video quality.

Figure A-5: Percentage Breakdown by Perceived E-scooter Rider Gender at All In-person Locations



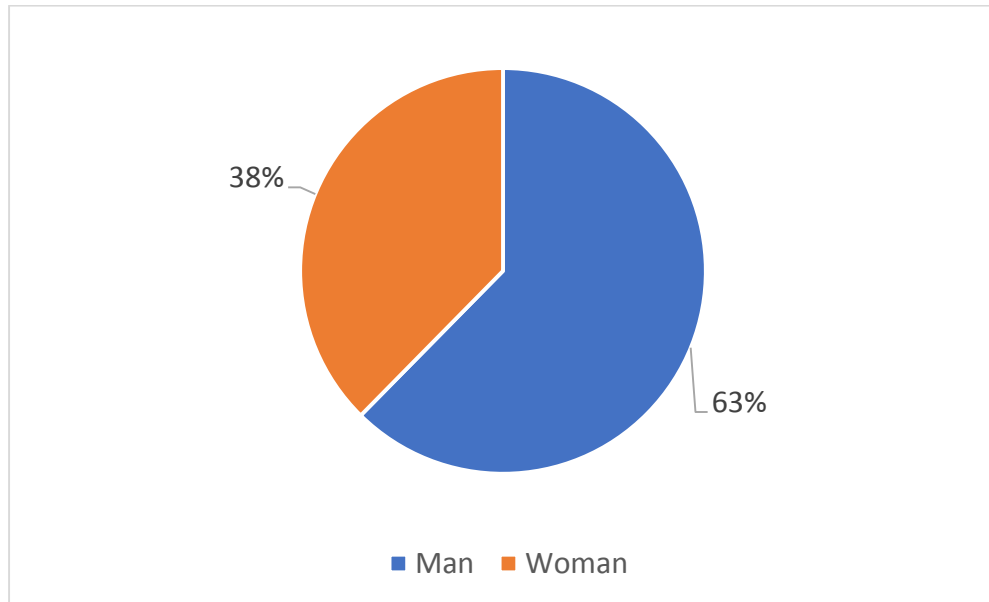
For interest, these data are similar with the gender breakdown for cyclists. According to Vélo Canada Bikes’ 2021 Pedal Poll, completed in cities across Canada:

“There were twice as many men as women observed (65 per cent men, 32 per cent women, 3 per cent other/unsure) with marked variability within cities.”
 ([Journal of Transport & Health](#), 2023)

This shows an area for further research by the Province to address the barriers women may be face in using e-scooters.

Figure A-6 presents the perceived gender breakdown for the eight cargo e-bike riders at all in-person locations. To note, it was too difficult to gauge gender from the Miovision video quality.

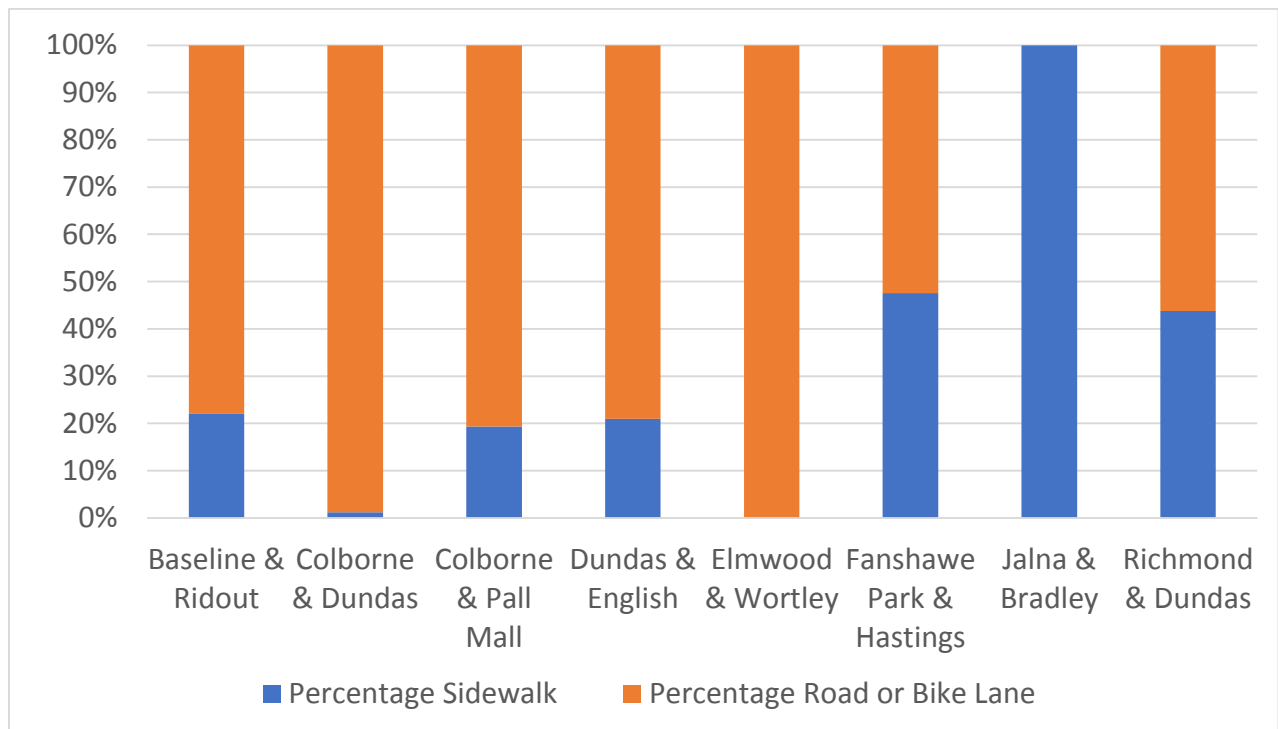
Figure A-6: Percentage Breakdown by Perceived Gender for Cargo E-bike Riders at All In-person Locations



Rider Behaviour

Miovision locations included a view of where the e-scooter users were riding. This allowed for a breakdown of riders on sidewalks, which is illegal, compared to on roads or in bike lanes, which are both allowed on roads posted at 50 kilometres or less. Figure A-7 presents the rider’s location on sidewalk, road or bike lane.

Figure A-7: Percentage Breakdown by Rider’s Location



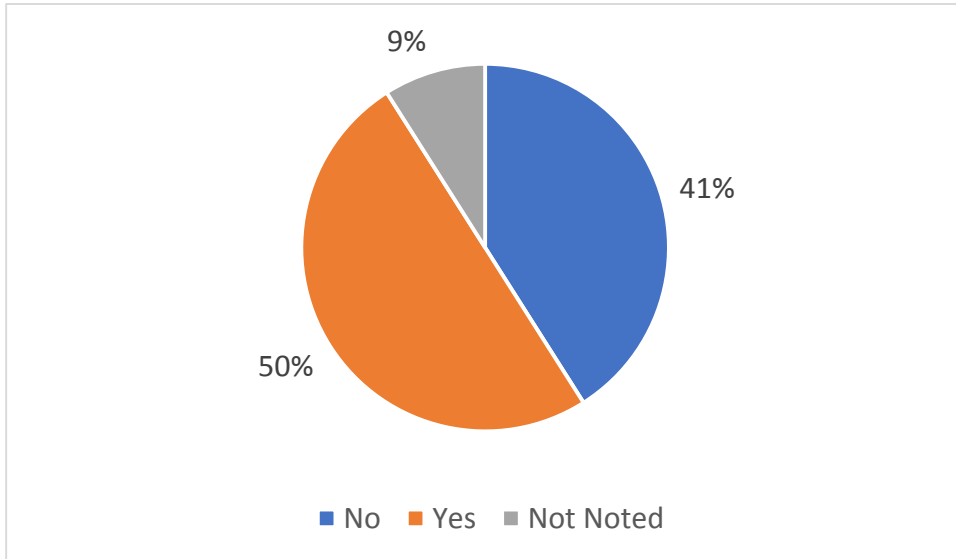
Overall, the majority of e-scooter riders were observed using roads or bike lanes at all locations except Jalna and Bradley. Observed sidewalk riding is specific to each location. For example, the Jalna and Bradley intersection is busy with fast-moving vehicles, and there are protected bike lanes along Bradley in this location. Colborne at Dundas has protected bike lanes in both directions. Elmwood at Wortley has a westbound bike lane on Elmwood and vehicular traffic is moving slower. The amount of pedestrian traffic may also affect where an e-scooter rider operates.

Helmet Use

Figures A-8 and A-9 present the breakdown of observed e-scooter and cargo e-bike helmet use during the in-person counts. There were a variety of reasons for not having noted helmet use, including that the person went by too quickly, they were hidden by another pathway user, or the staff person did not note it. It was too difficult to gauge

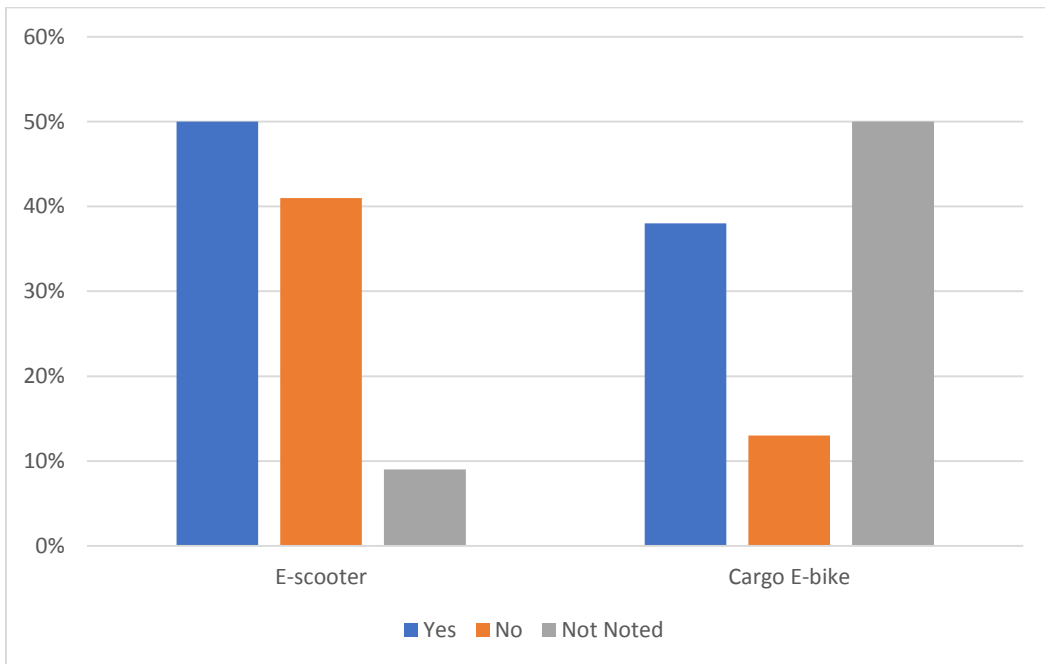
helmet use from the Miovision video quality, and there was only a total of 8 observed cargo e-bikes over the entire season.

Figure A-8: Percentage of E-scooter Helmet Use During In-person Counts



For in-person counts, half of e-scooters riders were observed wearing a helmet.

Figure A-9: Percentage of E-scooter & Cargo E-bike Helmet Use at In-person Counts



Perceived Speeding

Figure A-10 presents the percentage of times a vehicle was noted as speeding or not speeding during in-person observations. It is difficult to judge vehicle speed relative to the posted speed limit along the Thames Valley Parkway, which is 20 km/hour at all in-person count locations. No technology to measure speed was used to make these observations.

Figure A-10: Perceived Speeding by Vehicle Type at In-person Counts

Vehicle Type	Speeding
E-Scooter	
No	90%
Unsure	6%
Yes	4%
E-bike (<55kg)	
No	80%
Unsure	4%
Yes	8%
(Not Noted)	7%
Other motorized micromobility (e.g., hoverboard, e-skateboard)	
No	65%
Unsure	10%
Yes	22%
(Not Noted)	3%
Other non-motorized micromobility (e.g., in-line skates, skateboard, scooter)	
No	96%
(Not Noted)	4%
Regular bike (non-motorized)	
No	81%
Unsure	2%
Yes	2%
(Not Noted)	15%

These observations show that the majority of users for all noted vehicle types were not perceived as speeding. This includes e-scooter riders, where 90 per cent of observed riders were not speeding. E-scooter riders represented only 2 per cent of all in-person counts over the five sessions.

Riders of other motorized micromobility vehicles (e.g., hoverboard or skateboard) were perceived to be speeding 22 per cent of the time. However, these vehicles only made up 1 per cent of all in-person counts.

Use of Bell or Horn When Passing


Riders' use of a bell or horn when passing was noted at in-person counts. However, no results could be determined as riders were not passing others at the count locations.

APPENDIX B Micromobility Field Guide

Cargo Power-assisted Bicycles (over 55 kg – total weight without passengers)

	<p>Bicycle design with cargo in front</p> <ul style="list-style-type: none"> • Brand: Trek • Colours: Black, Red • Image with cargo • 75 kg
	<p>Tricycle design with cargo in back</p> <ul style="list-style-type: none"> • Brand: Gleam • Colour: Blue • 70 kg
	<p>Tricycle design with cargo in front.</p> <ul style="list-style-type: none"> • Brand: Raleigh • Colour: white • 75 kg
	<p>Tricycle design with cargo in front.</p> <ul style="list-style-type: none"> • Brand: Bunch • Colours: red, woodgrain, black, white • 76 kg
	<p>Note: This is a cargo power-assisted bicycle over 120 kg. If over 120 kg, they are not allowed to operate in any park or recreation area according to City's Parks & Recreation Area By-law</p>

Power-assisted Bicycles or e-bikes (under 55 kgs – total weight without passengers)

	<p>Note: many cargo e-bikes sold by London retailers with cargo in the back are smaller in size (under 55 kg) and are not a part of the provincial pilot</p>
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E-scooters

	<p>Stand-up scooter with a deck for standing on and handlebars with a throttle.</p>
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APPENDIX C Sample Count Forms

In-person Count Form on Microsoft Forms

Gibbons Aug 25 Micromobility Counts

* Required

* This form will record your name, please fill your name.

1. Vehicle Type *

- E-Scooter
- Cargo e-bike (>55kg)
- E-bike (<55kg)
- Regular bike (non-motorized)
- Other motorized micromobility (e.g., hoverboard, e-skateboard)
- Other non-motorized micromobility (e.g., roller blades, skateboard, scooter)

2. Direction *

- North
- South
- East
- West

3. Age (approximate)

- Under 16
- 16-17
- 18-29
- 30-39
- 40-49
- 50-59
- 60-69
- 70-79
- 80+

4. Gender expression (perceived)

 Woman Man

5. Wearing a helmet

 Yes No

6. Using a bell or horn

 Yes No Not applicable

7. Has lights or reflectors

- Yes
- No
- Unsure
- Not applicable

8. Using handsignals

- Yes
- No
- Unsure
- Not applicable

9. Overtaking another vehicle or pedestrian

- Yes
- No
- Unsure
- Not applicable

10. Speeding

- Yes
- No
- Unsure

11. Other behaviours/observations

This content is neither created nor endorsed by Microsoft. The data you submit will be sent to the form owner.

 Microsoft Forms

Miovision Count Form on Microsoft Forms

Colborne/Dundas August 17 6:00-7:00pm

* Required

* This form will record your name, please fill your name.

1. Vehicle Type *

- E-Scooter
- Cargo e-bike (>55kg)
- E-bike (<55kg)
- Regular bike (non-motorized)
- Other motorized micromobility (e.g., hoverboard, e-skateboard)
- Other non-motorized micromobility (e.g., roller blades, skateboard, scooter)

2. Direction *

- North
- South
- East
- West

3. Using

- Sidewalk
- Bikelane
- Road
- Other

4. Using handsignals

- Yes
- No
- Unsure
- Not applicable

5. Wearing a helmet

- Yes
- No
- Unsure

6. Gender expression (perceived)

- Woman
- Man
- Unsure

7. Other behaviours/observations

This content is neither created nor endorsed by Microsoft. The data you submit will be sent to the form owner.

APPENDIX D

Community Engagement

Methodology

In addition to data collection, an education and awareness campaign for personal electric kick-scooters was carried out in 2023. Methods used for this campaign included print material, social media posts, and in-person engagement sessions to inform London residents about the pilot rules of the road, where the vehicles can and cannot operate, as well as the health and economic advantages of using these micromobility vehicles (i.e., replacing motor vehicle trips).

A poster, postcard, social media graphics, and signage were developed to raise awareness of personal electric kick-scooters and communicate to road users the how and where personal electric kick-scooters can be used. Actions included:

- Postcards were distributed at engagement sessions, retailers selling personal electric kick-scooters, and to community partners for their own distribution (London Cycle Link, Middlesex London Health Unit, and Active and Safe Routes to School). Postcards were sent to residents who inquired about personal electric kick-scooters;
- A 2' by 3' sign was developed to be used at engagement sessions;
- Posters were distributed across public sites for bulletin boards (Libraries, community centres, City Hall elevators, Tourism London offices);
- An ad about the new Electric Kick-Scooter and Cargo Power-assisted Bicycle By-law was published in the May/June 2023 edition of the CityGreen newsletter that is distributed in the mail with London Hydro bills and is also available online; and
- Social media graphics were developed for City of London social media accounts.

Figure D-1 presents one example of a social media post.

Figure D-1: Example of a Micromobility X Post



Engagement Session Schedule

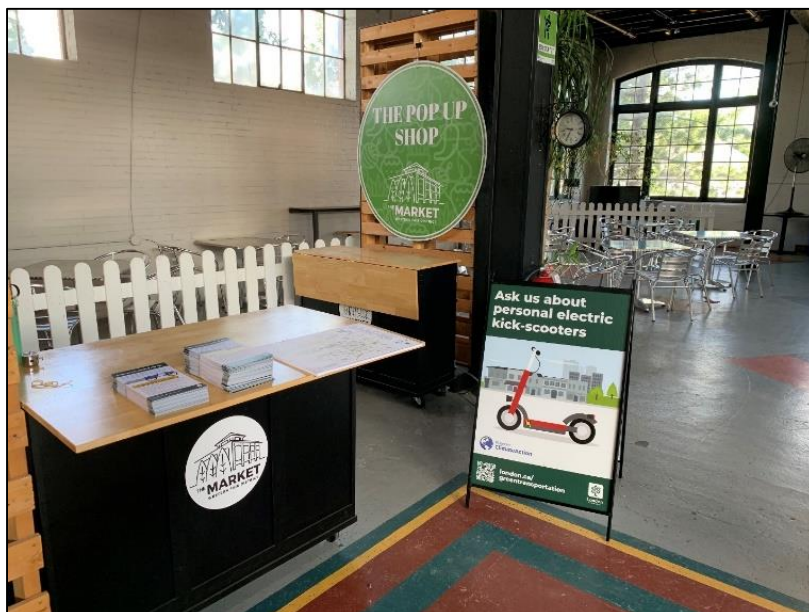
City staff attended micromobility specific pop-up engagement events, as well as large events alongside other City divisions' booths. Micromobility pop-up locations were selected in high foot and cycle-traffic areas along the TVP. Between June and August of 2023, each location held one to three pop-up engagement sessions. Sessions varied across days of the week and time of day (7:30 a.m.-9:30 a.m., 3:30 p.m.-5:30 p.m., or

6:00 p.m.-8:00 p.m.). An additional pop-up was held over one weekend at the Western Fair Market's community booth.

Micromobility pop-up locations included:

- Blackfriars Bridge
- North London Athletic Fields
- Gibbons Park
- Ivey Park
- Springbank Park
- Kiwanis Park
- Western Fair Market Community Booth – July 29-30 (Figure D-2)

Figure D-2: Example of a Micromobility Pop-up (Western Fair Market's Community Booth)



Large events attended in 2023 included:

- Gathering on the Green – Old South – Saturday, June 3
- Forest City Slow Roll – Dundas Place – Saturday, June 3
- Bike Rodeo – East Lions Community Centre – Saturday, June 24
- Sunfest – Victoria Park – Thursday, July 6 to Sunday, July 9
- Home County Music & Art Festival – Victoria Park – Friday, July 14 to Sunday, July 16
- Bike to Campus Day – Western University & Fanshawe College – Wednesday, October 4
- Newcomer Day – RBC Place – Saturday, October 14

In-Person Engagement

During the in-person engagement sessions, City staff had the opportunity to hear feedback from London residents about both electric kick-scooters and cargo power-assisted bicycles, as well as general mobility topics. Recurring questions and comments received at in person engagement sessions were:

- Owners/users of personal electric kick-scooters provided positive comments about their experiences using the vehicles;
- Questions and concerns about the cost of the vehicles;
- Interest/inquiries about shared e-scooter programs in London;
- Interest/inquiries about where to buy the vehicles;
- Questions about City by-laws – where they can be used, speed limits, age restrictions, helmet requirements;
- Concerns about speeding, mainly along the Thames Valley Parkway. These comments were not specific to electric kick-scooters or cargo power-assisted bicycles, but all micromobility vehicles; and
- Concerns about riders of all micromobility vehicles not using bells to pass pedestrians, mainly along the Thames Valley Parkway.

Online Engagement

Social media posts in 2023 updating Londoners on the new Electric Kick-Scooter and Cargo Power-assisted Bicycle By-law were published on the City of London social media accounts. Between June and September 2023, the social media posts were seen over 64,300 times (total impressions). People engaged with the posts over 2,700 times (the total of likes, comments, shares, and link clicks). The posts were shared on Facebook, Twitter/X, and Instagram.

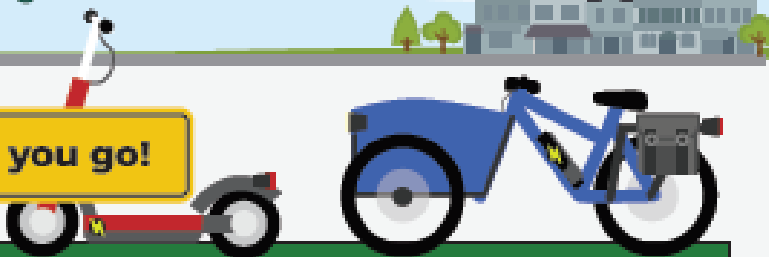
On London.ca, two new webpages were created. The [Personal Electric Kick-Scooter webpage](#) and the [Cargo Power-assisted Bicycle webpage](#) were published in June 2023.

Below are examples of engagement material that was distributed:

Micromobility Poster

Personal Electric kick-scooters and Cargo power-assisted bicycles

Personal **electric kick-scooters** and **cargo power-assisted bicycles** are being used more in London.



Know before you go!


Personal electric kick-scooters	Cargo power-assisted bicycles
<ul style="list-style-type: none"> • Electric kick-scooters cannot be used on sidewalks, hiking trails or in Environmentally Significant Areas. • They can be parked at bike racks like a bicycle. • The speed limit is 24 km/hr. You must obey all posted speed limits. • You must be 16 years old or older to ride one. • You must wear a helmet if you are 16 or 17 years old. • You cannot carry passengers or cargo. 	<ul style="list-style-type: none"> • Cargo power-assisted bicycles cannot be used on sidewalks, hiking trails or in Environmentally Significant Areas. • You must park in spots for motor vehicles. • The speed limit is 32 km/hr. You must obey all posted speed limits. • You must be 16 years old or older to ride one. • All riders and passengers must wear a helmet.

Where you can ride

	Roadway (vehicle lanes)	Bike lanes and cycle tracks	Multi-use pathways (including the Thames Valley Parkway)	Sidewalks
Bicycle	✔ Yes	✔ Yes	✔ Yes	✘ No *
Personal electric kick-scooters	✔ Yes **	✔ Yes	✔ Yes	✘ No
E-bike and cargo power-assisted bicycles up to 119 kg	✔ Yes **	✔ Yes	✔ Yes	✘ No
Motor assisted bicycles, mopeds and motorcycles	✔ Yes	✘ No	✘ No	✘ No

* Children under the age of 14 can ride bicycles on sidewalks in London.
 ** Personal electric kick-scooters and cargo power-assisted bicycles can only be ridden on roadways posted at 50 km/hr or less.


london.ca/greentransportation



Two-sided Micromobility Postcard


Personal Electric kick-scooters

Personal **electric kick-scooters** can be ridden on roadways posted at 50 km/hr or less, in bike lanes, and on multi-use pathways including the Thames Valley Parkway.



Know before you go!

- Electric kick-scooters cannot be used on sidewalks, hiking trails or in Environmentally Significant Areas.
- They can be parked at bike racks like a bicycle.
- The speed limit is 24 km/hr. You must follow all posted speed limits.
- You must be 16 years old or older to ride one.
- You must wear a helmet if you are 16 or 17 years old.
- You cannot carry passengers or cargo.
- Be courteous and slow down when around people.

london.ca/greentransportation


Cargo power-assisted bicycles

Cargo power-assisted bicycles can be ridden on roadways posted at 50 km/hr or less, in bike lanes, and on multi-use pathways including the Thames Valley Parkway.



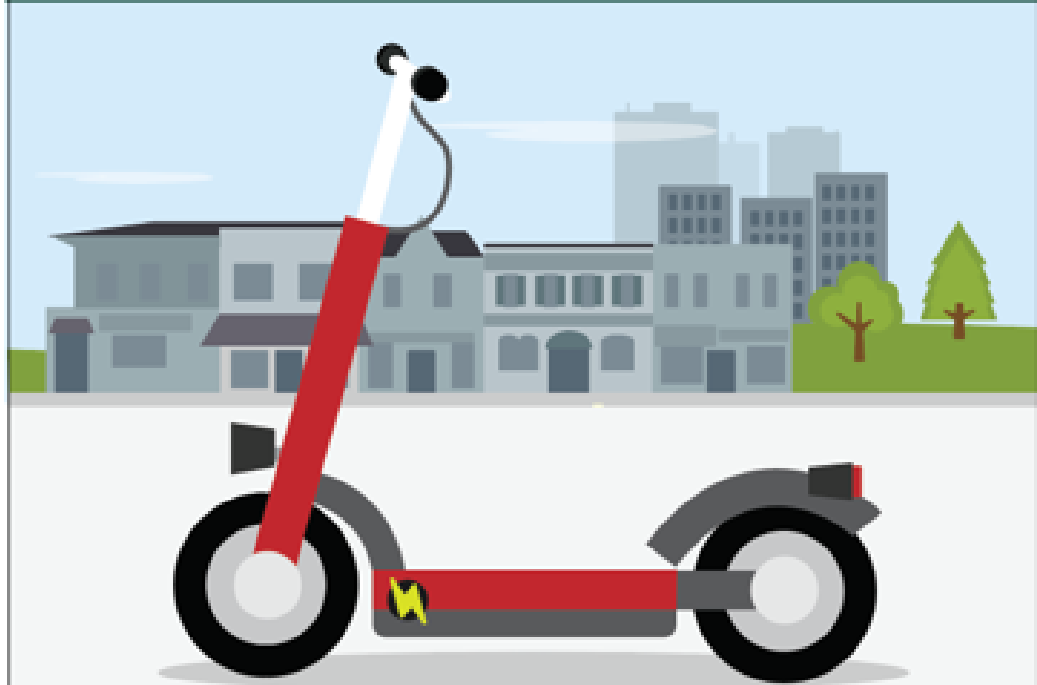
Know before you go!

- Cargo power-assisted bicycles cannot be used on sidewalks, hiking trails, or in Environmentally Significant Areas.
- In addition, cargo power-assisted bicycles weighing more than 119 kg cannot operate on multi-use pathways or the Thames Valley Parkway.
- You must park in spots for motor vehicles.
- The speed limit is 32 km/hr. You must follow all posted speed limits.
- You must be 16 years old or older to ride one.
- All riders and passengers must wear a helmet.
- Be courteous and slow down when around people.

london.ca/greentransportation


Personal Electric Kick-Scooter 2' x 3' Sign

Ask us about personal electric kick-scooters



#LdnOnt
ClimateAction

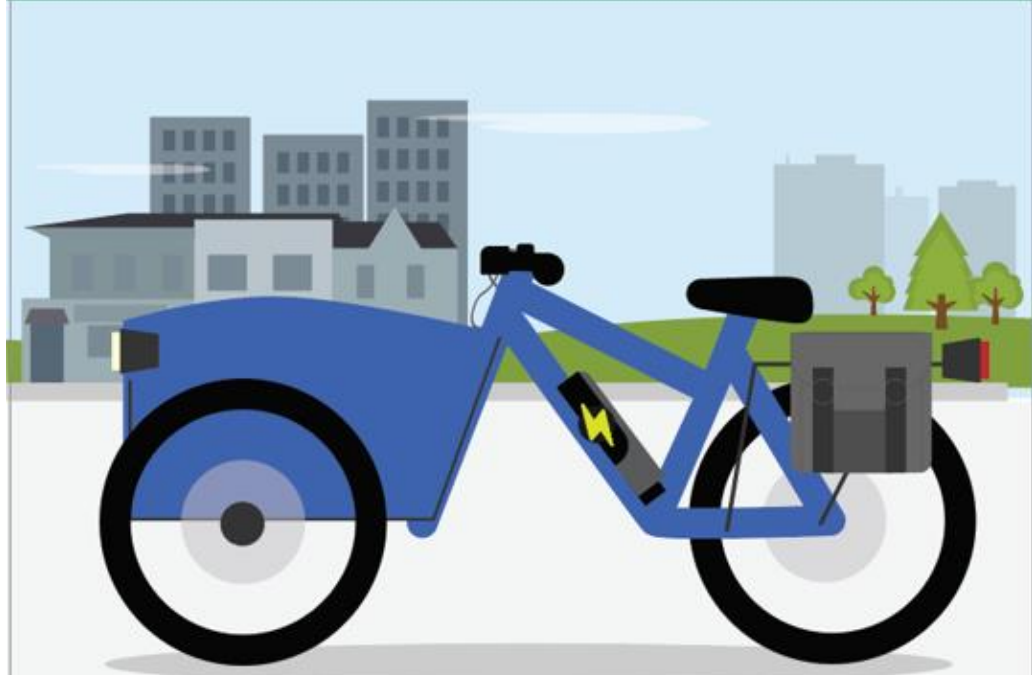


[london.ca/
greentransportation](https://london.ca/greentransportation)



Cargo Power-assisted Bicycle 2' x 3' Sign

**Ask us about cargo
power-assisted
bicycles**



london.ca/greentransportation



#LdnOnt
ClimateAction



London
CANADA

Micromobility CityGreen Newsletter Ad

Know before you go!

Where you can ride **e-scooters** and **cargo e-bikes**



	Roadway (vehicle lanes)	Bike lanes and cycle tracks	Multi-use pathways (including the Thames Valley Parkway)	Sidewalks
Personal electric kick-scooters	✔ Yes *	✔ Yes	✔ Yes	✘ No
Cargo power-assisted bicycles up to 119 kg	✔ Yes *	✔ Yes	✔ Yes	✘ No

* Personal electric kick-scooters and cargo power-assisted bicycles can only be ridden on roadways posted at 50 km/hr or less

Personal electric kick-scooters	Cargo power-assisted bicycles
<ul style="list-style-type: none"> • They can be parked at bike racks like a bicycle. • The speed limit is 24 km/hr. You must obey all posted speed limits. • You must be 16 years old or older to ride one. • You must wear a helmet if you are 16 or 17 years old. • You cannot carry passengers or cargo. 	<ul style="list-style-type: none"> • You must park in spots for motor vehicles. • The speed limit is 32 km/hr. You must obey all posted speed limits. • You must be 16 years old or older to ride one. • All riders and passengers must wear a helmet.

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Micromobility Social Media Graphics



Facebook and Twitter/X post graphic



Instagram story graphic