

E-scooters - Accessibility and Insurance Issues

Date: April 14, 2021

To: Infrastructure and Environment Committee

From: General Manager, Transportation Services

Wards: All

SUMMARY

An electric kick-scooter (or e-scooter) is a new vehicle type operated by standing on a board with two small wheels and using a throttle on a handle stick. They are only allowed for use on private property in Ontario, unless a municipality has opted-in to the Province's e-scooter pilot project which runs from January 1, 2020 to November 27, 2024. This requires amending municipal by-laws on where e-scooters would be allowed for use in public spaces.

After receiving a report from City staff in July 2020 on e-scooters that included concerns from disability groups and residents, City Council directed Transportation Services to report back on the accessibility and insurance issues, including:

- safety, especially for people living with disabilities and seniors, when encountering 1) e-scooters illegally operating on sidewalks and 2) trip hazards or obstructions from poorly parked or numerous rental e-scooters on sidewalks;
- lack of city resources for enforcement and the major challenges of enforcing moving violations on sidewalks, parking obstructions and vandalism;
- problems with indemnification agreements with e-scooter rental companies and liability of e-scooter riders if injured or injuring others; and
- lack of insurance and medical coverage, and the significant liability exposure to the City when no other party provides compensation, leading to costs associated with claims, litigation and settlement.

Based on extensive research and feedback, this report concludes that accessibility barriers, safety concerns and insurance issues remain unresolved for privately owned and rental e-scooters. The solutions proposed by e-scooter industry participants are not satisfactory in addressing the concerns from the Toronto Accessibility Advisory Committee, disability groups, residents, and City staff. Accordingly, City staff recommend that Toronto not opt-in to the e-scooter pilot. The current regulations that prohibit the use of e-scooters in public spaces make sense as they will prevent an increase in street and sidewalk-related injuries and fatalities, and their associated costs. This aligns with the City's Vision Zero Road Safety goals, including consideration of impacts on pedestrians and persons living with disabilities.

RECOMMENDATIONS

The General Manager, Transportation Services, recommends that:

1. City Council decline the option to participate in O.Reg 389/19 – Pilot Project – Electric Kick-Scooters.

FINANCIAL IMPACT

Transportation Services confirms that there are no financial implications resulting from the recommendation included in this report.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

On February 25, 2021, the Toronto Accessibility Advisory Committee affirmed that it does not support the use of e-scooters, including any pilot project, and requested a ban without exception. The Committee also recommended that City Council request Toronto Police Services, Transportation Services and Municipal Licensing and Standards to consult accessibility stakeholders to develop a public education campaign on existing by-laws prohibiting e-scooter use in public spaces and actively scale up enforcement.
<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2021.DI14.1>

On July 28-29, 2020, City Council directed the General Manager, Transportation Services, to report back on referral Item 14.10 to address issues identified by the Toronto Accessibility Advisory Committee, including insurance issues.
<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.IE14.10>

On February 3, 2020, the Toronto Accessibility Advisory Committee recommended City Council prohibit e-scooters for use in public spaces including sidewalks and roads, and directed that any City permission granted to e-scooter companies be guided by public safety, in robust consultation with persons with disabilities and related organizations.
<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.DI7.3>

On October 2-3, 2019 City Council, directed the General Manager, Transportation Services, to report on an oversight and management program for e-scooters on City roadways, including possibly adding e-scooters to the bike share fleet as a way of managing e-scooters, to ensure a safe and accessible transportation network for all users during the proposed Provincial pilot project. City Council also prohibited e-scooter use on City sidewalks and pedestrian ways, and parking, storing or leaving an e-scooter on any street, sidewalk and pedestrian way.
<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.IE7.13>

On April 25, 2019, the Infrastructure and Environment Committee requested a report back on a proposed regulatory framework, safe road design and intersection requirements for low-speed wheeled modes under 25 km, including but not limited to electric wheelchairs, scooters, cargo cycles, and e-assist cycles in Toronto. <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.IE4.5>

COMMENTS

Background

E-scooters are a two-wheeled, battery-powered vehicle with a narrow board that the rider stands on and steers using a handle stick and using a throttle for acceleration (see Figure 1).

On January 1, 2020, *Ontario Regulation 389/19 Pilot Project - Electric Kick-Scooters* under the Highway Traffic Act came into effect for a five-year period subject to conditions. In order to allow e-scooters in public spaces within its jurisdiction, municipalities need to opt-in to the pilot. This requires revising a municipality's by-laws on where e-scooters would be allowed for use such as on streets and paths, as well as managing oversight such as collecting data on collisions, injuries and fatalities and remitting reports to the Ministry of Transportation.



Figure 1: E-scooter (example)

At its meeting on July 28-29, 2020, after receiving a report from City staff on e-scooters that included concerns from disability groups and residents, City Council referred *Item 14.10 E-Scooters - A Vision Zero Road Safety Approach* back to City staff and directed Transportation Services to report on accessibility issues raised by the Toronto Accessibility Advisory Committee (TAAC), including insurance issues.

Key concerns include:

- safety and accessibility concerns, in particular for people living with no vision/low vision and seniors, when encountering 1) e-scooters illegally operating on sidewalks and 2) trip hazards or obstructions from poorly parked e-scooters or numerous rental e-scooters on sidewalks;
- lack of city resources for enforcement and major challenges enforcing moving violations on sidewalks, parking obstructions and vandalism;
- issues and problems with indemnification agreements with e-scooter rental companies, and liability of e-scooter riders if injured or injuring others; and
- lack of available insurance and medical coverage (e.g. for rehabilitation, lost wages, and medical costs not covered by OHIP) and the significant liability and cost exposures associated with claims, litigation, and settlement to the City when no other party is able to provide compensation.

Accessibility Issues & Stakeholder Feedback

Following the July 2020 Council report referral back to staff, e-scooter companies were invited to propose solutions to the aforementioned issues at several stages of Transportation Services Division's research. Companies were asked to submit information by e-mail in August 2020, which generated questions from companies to staff and further clarification and requests for information in Fall/Winter 2020 (and up to the drafting of this report). An interactive and facilitated e-scooter industry group meeting was held on January 20, 2021 with 29 participants representing 15 companies. The material provided by the industry engagement was incorporated into City staff's presentation to the TAAC.

Throughout 2020 and continuing in 2021, Transportation Services staff have received many concerns regarding e-scooters, including letters to the Mayor, from residents and several local and Canada-wide accessibility and human rights organizations (see Attachment 1 - List of Accessibility Stakeholders). The letters to the Mayor can be found with *Item DI14.1 Electric Kick-Scooters (E-scooters) - Accessibility Feedback - Attachment 1 - Letters from Stakeholders*.

Consultation included tele-meetings with key accessibility organizations and a special meeting of the TAAC on February 25, 2021 including deputants who experienced e-scooter pilot projects in other jurisdictions in the U.S. and Ottawa. Three e-scooter companies also made deputations at this meeting. Transportation Services staff also presented on March 3, 2021 to TTC's Advisory Committee on Accessible Transit's (ACAT) Service Planning Sub-Committee.

Key concerns include:

- additional barriers created for pedestrians and persons with disabilities who use sidewalks out of necessity, especially people living with no vision/low vision, users of mobility assistive devices, or older adults encountering illegal sidewalk riding or poorly parked e-scooters;
- significant challenges and difficulties with enforcing moving violations (i.e., lack of policing resources to witness/enforce illegal e-scooter use on sidewalks, 'hit and runs', and the inability to identify the e-scooter rider); and
- how someone injured by an e-scooter rider or trip hazard caused by an improperly parked e-scooter would be compensated for damages (e.g., rehabilitation, lost wages, and medical costs).

At its February 25th meeting, the TAAC unanimously passed a motion to communicate to the Infrastructure and Environment Committee and City Council that they do not support the use of any e-scooters including a pilot project in the City of Toronto, and requested that a ban prohibiting e-scooter use in all public space remain in place without any exceptions. The TAAC also recommended a public education campaign for, and enforcement of, the existing by-laws banning public e-scooter use.

The feedback from residents, accessibility stakeholders and the TAAC indicates that solutions posed for privately-owned and rental/shared e-scooters are not satisfactory in addressing accessibility and safety issues.

Lack of Adequate Solutions to Accessibility and Safety Concerns

- *Technologies proposed by e-scooter companies are still experimental and do not prevent illegal sidewalk riding and conflicts with pedestrians and persons with disabilities.* Sidewalk detection technologies (e.g., using camera data, vibration pattern data, or onboard braking patterns) are still experimental for e-scooter rental companies; and would not apply to privately owned e-scooters. These technologies also do not prevent e-scooter use/conflicts on sidewalks, but take effect once e-scooters are already on sidewalks which is reactive, rather than preventive.
- *There are not enough city resources for enforcement, and there are inherent problems with enforcing e-scooters* that are difficult to overcome, such as requiring police enforcement to be present for incidents on sidewalks and the problem of identifying an e-scooter rider given their speed and no licence plates on devices that are privately owned. Also, the identity of the person renting the e-scooter may not be the person riding the e-scooter if rented/shared. Such enforcement is highly labour- and resource-intensive, and in many ways, infeasible.
- *"Lock-to" cables are not an effective solution because rental e-scooters could then be locked anywhere including as obstructions.* Adding a cable to e-scooters enables them to be locked to spots blocking entrances, paths of travel or even inside transit shelters attached to the bench (a concern of TTC's ACAT members). E-scooter rental companies note that personally-owned bicycles can be locked to posts/bike rings; however, this is not a fair comparison for rental fleets. Bike Share Toronto bicycles are "docked", not dockless. Over 6,800 bike share bikes must be docked at Bike Share Toronto stations. Allowing thousands of rental e-scooters to use lock-to cables (essentially being dockless) would create significant pressure on existing bike parking in the City and numerous obstacles on sidewalks.

Residents and accessibility stakeholders say that "lock-to" e-scooters would worsen the number of sidewalk obstructions on already narrow and cluttered sidewalks. While docking stations for e-scooters may have potential, such technologies are still emerging.

- *Allowing e-scooters will add further barriers, and introduce hazards and distress at a time when COVID-19 has resulted in greater challenges for seniors, persons living with disabilities and their caregivers* who use sidewalks as a necessity and not for recreation. Concerns raised include not only the risk of serious injury or fatality to persons with disabilities if tripping and falling or struck by an e-scooter, but the additional concern of being deprioritized for care, given an overburdened health care system and the need for triaging patients during the pandemic.

A scan of other jurisdictions on sidewalk e-scooter riding and non-rider injuries is included in *Attachment 2 - Research Scan of Accessibility Issues in Other Jurisdictions*.

Insurance and Liability Issues Are Not Resolved

Transportation Services, in consultation with the City's Insurance and Risk Management Section (IRM), also concludes that insurance and liability issues remain unresolved for both privately owned and rental/shared e-scooters, for the reasons below.

- *Insurance products are not commercially available in Canada for e-scooters.* Coverage is available, however, for pedal-assisted / power-assisted bicycles through home, tenant or condo insurance. Such insurance covers personal liability arising from the ownership, use or operation of e-bikes that meet the definition in the policy's wording for power-assisted bicycle (e-bike). In the event that a pedestrian is injured by an e-bike user, and that e-bike is covered under the homeowners, tenant or condo insurance policy, then their insurance policy would respond subject to any policy limits and exclusions.
- *E-scooter companies are not providing full indemnification and first and third party insurance coverage to riders.* To protect the City and e-scooter riders, rental companies must provide full indemnification for the City, and first and third party insurance coverage for e-scooter riders. This is similar to coverage available in the U.K. for their e-scooter trials, and also similar to liability insurance requirements in other countries such as France, Germany and Malta. Liability insurance held by e-scooter companies themselves (e.g., commercial general liability insurance) does not extend to protect the rider.
 - First party coverage would address e-scooter rider injuries such as falls; and
 - Third party coverage would address e-scooter rider liability to third parties such as pedestrians or cyclists (e.g. in collisions or tripping incidents).
- *There have been demonstrated difficulties in obtaining full indemnification from e-scooter companies.* Municipalities have had disagreements with e-scooter companies over indemnification clauses (e.g., Chicago, Oakland) and pursued legal action against e-scooter companies for not complying with the indemnification clauses contained in their agreements (e.g., City of Riverside, California).
- *E-scooter companies have denied responsibility for losses on municipal property (public infrastructure) where they deem infrastructure conditions to be a contributing factor of the loss.* Existing infrastructure design and minimum maintenance standards do not contemplate e-scooters and their particular features, such as small wheels and their device geometry. In addition, there are several risk factors unique to Toronto, such as:
 - an extensive streetcar track network of approximately 177 linear kilometres which poses a hazard to e-scooter riders due to the vehicle's small wheels;
 - freezing and thawing from winters that impact the state-of-good-repair for roads. A large portion of roads are 40 to 50 years old, with about 43 per cent of Major Roads and 24 per cent of Local Roads in poor condition. Coupled with lack of mechanical standards for e-scooter wheels (e.g., traction/size), this makes this particular device more sensitive to uneven surfaces;
 - street conditions are affected by the city's high volume of construction projects (e.g., approximately 120 development construction sites in 2019); and

- narrow sidewalks and high pedestrian mode shares in the Downtown Core and City Centres increase the likelihood of friction on sidewalks with illegal e-scooter operation on sidewalks and poorly parked e-scooters.

Through feedback at the January 2021 industry group meeting, e-scooter companies have raised issues about the cost of obtaining and providing first and third party insurance coverage for riders; and the challenges of finding viable insurance providers. E-scooter rental companies will need to actively engage and partner with the insurance industry to address this concern, to protect e-scooter riders and avoid becoming a burden on the City and subsequently its taxpayers.

Comparisons to insurance requirements for bike share programs are not appropriate, as City staff discussed at the January 2021 industry group meeting, as the risk profile of e-scooters is not the same as those of bicycles. The reasons are based on the design differences and safety research including, but not limited to, the following:

- E-scooters have a higher injury rate per mile than bicycles; e-scooter riders are twice as likely or 100% more likely to be injured from pavement cracks, potholes, signposts or lip of curb than bicyclists (IIHS, 2020).
- E-scooters with their small wheels are less stable/controllable and more susceptible to road irregularities, and more likely to crash on poorly maintained roads than bicycles; and their manufacturers should explore safety features like larger wheels, a fork rake, steering stabilisation, indicator lights and a seat. (ITF/OECD, 2020, pp.38-40).
- Data from two facial trauma centres in Paris show a trend toward an increase in severe head and neck injuries requiring surgery caused by the use of e-scooters (Hennocq et al., 2020).

There is still lack of protection for e-scooter riders with inadequate device safety standards and lack of available insurance. There are also ineffective solutions as of yet to address underage e-scooter riding and intoxicated e-scooter riding. Without full indemnification for the City and first and third party insurance coverage (including adequate thresholds) and upfront fees/funds held by the City, e-scooter riders and non-riders, as well as the City and subsequently, its taxpayers, are then exposed to the significant costs of responding to claims and litigation.

Long-Term Micromobility Options for the Public

While e-scooter trips have been said to overtake bike share trips - this has been in part due to the removal of bike share options in cities (e.g., Calgary and Hamilton in Canada, and Bloomington, Boise, Boulder, Dallas, Denver, Fort Collins, Knoxville, San Antonio and Seattle in the U.S.) and interestingly, bike share is being brought back again. Most recently, the City of San Francisco has been asked by its central area councillor/District 5 Supervisor (Dean Preston) for a publicly-owned and managed bike share and not a system run by private operators that does not meet the city's mobility needs and interests.

In this respect, the City of Toronto may be ahead of the micromobility curve for serving the public's interests. The 2020 Bike Share Toronto expansion added 1,550 bikes, 300 e-bikes and 160 stations to the system. Toronto's system now has 6,850 bikes and 625 stations total, with more than 360,000 users in 2020. Bike Share Toronto is also integrated with transit at 43 TTC stations and 9 GO Transit stations. Almost 3 million trips were generated on Bike Share Toronto in 2020. Other large, urban peer cities in Canada are also focusing on bike share and e-bike share, like Montréal and Vancouver.

In Summary

Based on extensive research and feedback, this report concludes that accessibility barriers, safety concerns, and insurance issues remain unresolved for privately owned and rental e-scooters. The solutions proposed by e-scooter industry participants are not satisfactory in addressing the concerns from the TAAC, disability groups, residents, and City staff. Accordingly, City staff recommend that Toronto not opt-in to the e-scooter pilot, as there are not adequate protections for e-scooter riders and non-riders. The current regulations that prohibit the use of e-scooters in public spaces make sense as they will prevent an increase in street and sidewalk-related injuries and fatalities, and their associated costs. This aligns with the City's Vision Zero Road Safety goals, including consideration of impacts on pedestrians and persons living with disabilities.

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ATTACHMENTS

Attachment 1: List of Accessibility Stakeholders
Attachment 2: Research Scan of Accessibility Issues in Other Jurisdictions

Attachment 1: List of Accessibility Stakeholders

- Accessibility for Ontarians with Disabilities Act (AODA) Alliance
- Alliance for Equality of Blind Canadians
- ARCH Disability Law Centre
- B'nai Brith Canada – League of Human Rights
- Canadian Council of the Blind (CCB) – Toronto Visionaries Chapter
- Canadian National Institute for the Blind (CNIB)
- Citizens With Disabilities – Ontario
- Guide Dog Users of Canada
- March of Dimes of Canada
- Older Women's Network
- Ontario Autism Coalition
- Spinal Cord Injury Ontario
- TTC Advisory Committee on Accessible Transit (ACAT)
- Views for the Visually Impaired
- Walk Toronto

Attachment 2: Research Scan of Accessibility Issues in Other Jurisdictions

A research scan on e-scooters indicates that illegal sidewalk riding is an unresolved problem:

- According to the UDV (German Insurers Accident Research) in January 2021, e-scooter riders are four times more likely than bicyclists to injure others, due to e-scooters being illegally ridden on sidewalks. In 21% of e-scooter incidents with personal injury, the victim is not the rider, but another road user. This is due in part to e-scooters being ridden on sidewalks 60% of the time when they should be on the road or bike lane.
- According to Austria's Kuratorium für Verkehrssicherheit (KFV) in October 2020, 34% of 573 e-scooter riders observed at several Vienna locations illegally rode on the sidewalk. Even if there was a bike path, 23 per cent preferred the sidewalk. If there was only one cycle or multi-purpose lane, 46 per cent rode on the sidewalk. If there was no cycling infrastructure, 49 per cent rolled illegally on the sidewalk.
- Tel Aviv has a unit of 22 inspectors dedicated to enforcing that e-scooters do not ride on sidewalks. 21,000 tickets for sidewalk offenses were issued in 2019. (Globes, 2020)

Pedestrian fatalities and serious injuries resulting from e-scooter incidents have occurred (e.g., in France, New Zealand, Singapore, Spain, U.K. and U.S), and data is under-reported for e-scooter incidents involving pedestrians:

- "Non-riders, mainly pedestrians, represent between 1% and 14% of standing e-scooter related injuries... A major caveat is the likely under-reporting of injuries, a phenomenon that may be greatest among pedestrians. Their injuries may be treated as falls and, as such, lie outside the traditional scope of traffic safety data (Bekhit et al., 2020). Police data from Santa Monica found pedestrians to be involved in 7% of shared micromobility collisions (City of Santa Monica 2019b)." (ITF/OECD, 2020)
- Data gaps exist, for example, when studies "explicitly excluded patients aged 55 and older on the grounds that mobility scooter injuries may be misinterpreted as standing e-scooter injuries. Such a protocol should be avoided because it may exclude a number of pedestrian injuries genuinely involving e-scooters." (ITF/OECD, 2020)
- According to a UCLA study of two hospital Emergency Rooms (ERs) in one year, just over eight per cent of the injuries were to pedestrians injured as a result of e-scooters (11 hit by an e-scooter, 5 tripped over a parked e-scooter, and 5 were attempting to move an e-scooter not in use). (Trivedi et al., 2019)
- Non-riders accounted for 16 per cent of Emergency Medical Services referred injuries related to e-scooters in a study in Copenhagen. (Blomberg et al., 2019)