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Felix Fung
Assistant Deputy Minister, Transportation Safety
Ontario Ministry of Transportation

Dear Mr. Fung:

Re: Comments from the City of Toronto (COT) on the Proposed Extension of the Automated Vehicles (AV) Pilot Project

Extending the Automated Vehicle pilot under O. Reg. 306/15 the Highway Traffic Act (HTA) provides an opportunity to continue gathering data, advancing innovation, and improving understanding of how AVs impact complex urban environments. City of Toronto staff have recommendations for how to improve the pilot to enhance these benefits and better ensure that pilot testing is conducted safely and securely, especially in dense urban areas.

The recent pilot of driverless automated delivery vehicles in Toronto attracted significant attention from Toronto City Council, with specific concerns relating to safety, congestion, collection of information, and protection of privacy. These concerns are based on lessons the City has learned from previous AV pilot projects. During both the City-initiated AV shuttle trial and the recent private-operator pilot in Toronto, a variety of vehicle behaviours were observed by one or both vehicle types which presented safety and congestion risks. These behaviours included vehicles incapable of making right turns at red lights, incapable of appropriately participating in turn-taking at stop-sign controlled intersections, frequent abrupt stops in response to a variety of common stimuli, veering out of lane of travel, turn signals that didn't function, and an unscheduled shut-down and re-boot in a lane of live traffic with inability to move to the side of the road. There are also data collection and privacy concerns that should be addressed ahead of any AV pilot projects to ensure transparency with the public and safe handling of data and personal information.

This letter contains recommendations for the update of the pilot regulation that we believe will address some of these concerns. It also suggests ways for MTO to build greater public trust and acceptance of AV use in Ontario, which will help create a more favourable environment for economic development of this technology without compromising public safety or security.

Regarding update of O.Reg. 306/15 under the HTA

The City reaffirms that municipalities have jurisdiction over local roads and must be notified in writing prior to any AV or driverless testing within their boundaries.

The City recommends the following additional requirements be incorporated into the pilot's regulatory requirements, application, and review processes:

i. To improve safety, interaction with law enforcement and mitigate impacts on congestion:

- Extend the Work Zone and Law Enforcement Interaction Plan to i) address interaction with municipal transit agencies and with all human-based traffic control (e.g. including crossing guards); and ii) require the pilot proponents to engage actively with municipal staff, transit agencies, emergency services and law enforcement personnel in preparation for deployment.
- Require pilot participants to define and report on their own safety performance metrics and quantitative indicators (e.g. disengagement rate per 1000 km, incident rate, near-miss data, etc.), and system failure causes.
- Impose strict limitations on the number of vehicles of any AV operator until they have demonstrated their ability to obey all basic rules of the road. Expansion of number of vehicles and the size and complexity of the approved operating area should be conditional on demonstration of this capability.
- Include a requirement for direct human oversight either on-board or remotely, until the operator proves the vehicle's ability to interact independently with human-managed traffic control such as traffic agents, crossing guards and work zone traffic control personnel, which are frequently encountered in dense cities such as Toronto. In instances where a 'chase vehicle' is used to follow a driverless vehicle, the driver of the chase vehicle must be focused solely on safely operating that chase vehicle with a passenger responsible for the automated vehicle.

ii. To support police forces and reinforce who is accountable in case of traffic incidents:

- Provide clarity under the HTA regarding who should be charged in the case where a fully driverless vehicle or a vehicle operated remotely is found at fault in a traffic incident.
- Maintain the existing minimum insurance coverage of $5 million or $8 million for multi-passenger vehicles and add clarity on liability for property damage and third-party injuries involving vulnerable road users.

iii. To enhance cybersecurity and privacy protection:

- Require applicants to declare in their applications (and to post publicly once they become participants):
  a. all types of data collection that may include collection of information about an identifiable individual (e.g. structured form or sensor data, unstructured video, still imagery, or sensor data) and the appropriate authorities allowing them to collect the information,
  b. the methods used for data collection, anonymization, use and storage,
  c. details about their personal information management policies, including data residency and analysis practices that involve self-driving technology and AI training using locally-collected personal information, in accordance with Canada's Personal Information Protection and Electronic Documents Act; and
  d. direct business contact information for an individual who can (and who is required to) answer questions about the collection, use, sharing, storage, security and destruction of personal information.

- Require all pilot participants to:
  a. Submit a separate Privacy Impact Assessment that describes their privacy protection practices and how they ensure adherence to applicable privacy legislation.
  b. Provide proof of credible and independent validation or certification of their cyber security protocols encompassing the pilot project and the data collected, and to report publicly and to the affected municipalities, any cyber security breach. At the City of

Toronto, the appropriate authority to report such a breach would be the Office of the Chief Information Security Officer (CISO).

iv. To better disseminate learning from each pilot and enhance the ability of municipalities to plan for a future with more automated vehicles:

- Establish clear and mandatory reporting metrics relevant to urban traffic operations, safety analytics, curbside behaviour, traffic congestion effects, parking management, infrastructure planning, and cyber security incidents, to enable a more consistent evaluation of AV operations.
- Establish a formalized data-sharing framework which requires pilot participants to share this data (with any personal information anonymized) with municipalities to enhance their own learning.

Regarding Opportunities for MTO to Build Public Trust

The City recommends the following steps for the MTO to increase transparency in the AV pilot program to help build public trust and acceptance of automated vehicles in Ontario.

1. Publish and maintain throughout the course of the pilot program, a publicly available listing of all approved AV and ACMV pilots in Ontario to date, providing key information such as:

- lead proponent, location, start date and duration, and number of vehicles in the pilot
- nature of each vehicle including function (e.g. shuttle bus versus goods delivery), SAE level, use of safety attendants or remote operators, fixed or dynamic routing
- types of sensors used, including use of cameras for either navigation or data collection purposes
- any operating conditions or limitations included in the vehicle's license to operate
- the criteria applied across applicants when assessing their eligibility to receive a licence under the pilot regulation.

The pilot project listing should be updated at regular intervals to include a record of total operating hours and/or operating kilometres, and any recorded traffic incidents.

We believe this can be done without revealing proprietary or confidential information of the AV operators and would go a long way to building public trust and maximizing the benefit of the pilot program by enabling industry professionals (such as municipal staff) to be more informed on the current state of the industry.

2. Provide a summary report based on any Av-related traffic incidents to date, which identifies trends and patterns of incidents, to assist municipalities and law enforcement in preparing for AV pilots in their own jurisdictions.

3. Establish and facilitate an inter-jurisdictional community of practice, bringing together staff from municipalities across the Province to share learnings and best practices for how municipalities can prepare for increased use of automated vehicles.

Regarding the recent AV pilot in Toronto: City staff had recommended to both MTO and Magna that they send representatives to meetings of the City's Infrastructure and Environment Committee, to make themselves available to respond to questions of Council in the most informed way possible. The Magna pilot was on the agenda of two such meetings. City staff were disappointed that MTO declined these opportunities to engage, demonstrate transparency and build public trust in both the Magna pilot and the Province's AV pilot program.

The City of Toronto remains committed to partnering with MTO, Transport Canada, academic institutions, and industry to ensure that automated vehicle testing supports innovation while maintaining public safety, equity, and environmental responsibility. We request continued participation in any provincial-municipal working groups related to AVs, CAV infrastructure, or mobility data governance. Thank you for the opportunity to provide comments. We trust that the Ministry will continue to approach this initiative with the thoroughness and caution it requires.

Sincerely,

Ashley Curtis
Acting General Manager
Transportation Services