

## Drive the Future of Public Transportation

### On-Road Trial of Electric Low-Speed Automated Shuttle at Tunney's Pasture from November 3 to 13, 2020

#### Research Project Backgrounder: FAQs

[Area X.O](#), the futureplex of innovation and collaboration operated by [Invest Ottawa](#), launched its first automated shuttle trial in August 2019 on a custom-designed route. This successful test supported the development, validation, and safe implementation of CAVs. This new Low-Speed Automated Shuttle project will test these vehicles on a more complicated route. It will enable project partners to continue assessing the effectiveness of automated shuttles operating in various conditions in a real-world transportation environment as a potential 'first and last mile' transportation solution.

#### What is a Low-Speed Automated Shuttle (LSAS)?

A Low-Speed Automated Shuttle is a small electric self-driving passenger vehicle that can fit up to six people (seated). The maximum speed of these vehicles is typically 25km/hr (or less). A safety operator is onboard to take full control of the shuttle if required at any time. These vehicles generally travel along a programmed route and utilize sensors and software to detect their surroundings, guide travel and avoid obstacles.

#### Why Explore How Automated Shuttles Could Contribute to Future Public Transportation?

- Automated shuttles are designed to provide safe and reliable transportation for riders over the first or last mile of their journey (where public transportation does not currently exist)
- For commuters, these shuttles have the potential to assist in providing a seamless and efficient connection to transportation hubs
- These vehicles may offer a variety of economic, social and environmental benefits, with the potential to improve accessibility to, and convenience of, transportation systems



#### What Shuttle Will We Use in This Research Project?

This research project will use the EZ10 shuttle by EasyMile, an industry leader in self-driving automated technology. Among its credentials, safety track record and expertise, the company:

- Has operated automated vehicles in 300+ locations in more than 30 countries, garnering international recognition for quality delivery and real-service deployments

- Serves global clients including leading transport operators, city authorities, airports, business parks, universities, manufacturers, factories and logistics centers
- Is the first in the world to deploy an automated shuttle with Level 4 autonomy
- Is the first automated vehicle solutions provider to be ISO 9001:2015 certified
- Created the EZ10 shuttle to improve public transport by connecting transportation hubs; and
- Combines engineering expertise and technologies such as Artificial Intelligence (AI), robotics, computer vision and vehicle dynamics powered by deep learning in all solutions

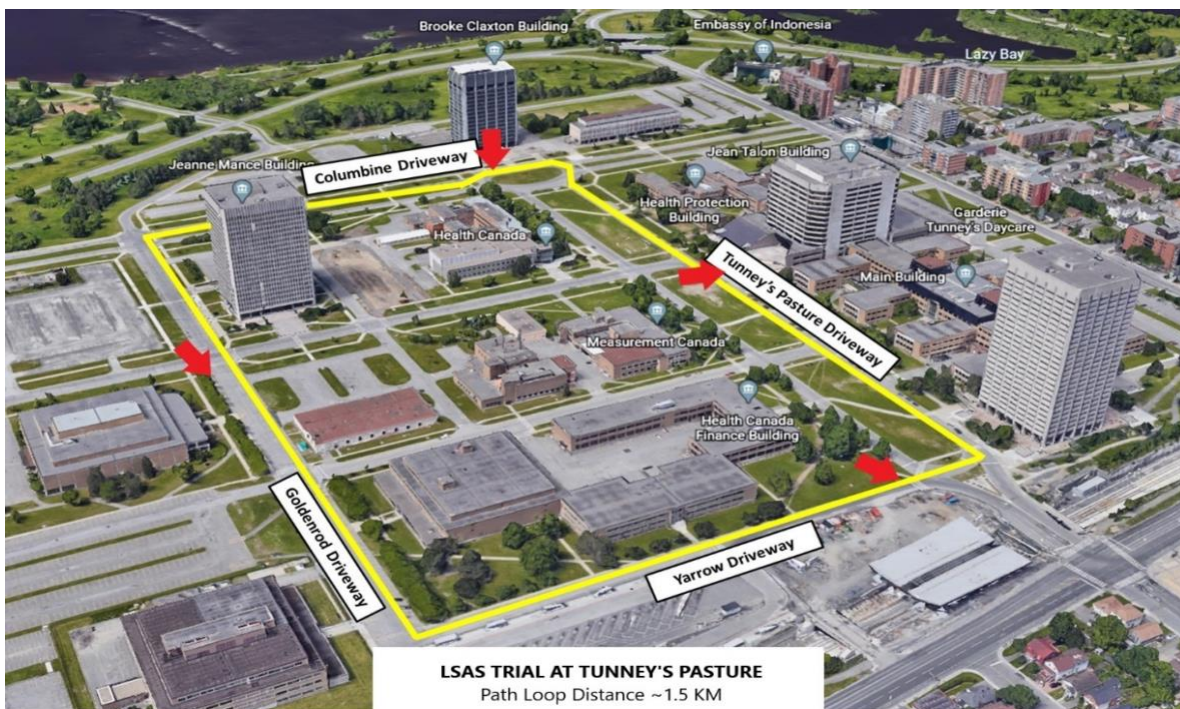
### How will the Automated Shuttle Operate During the Research Project?

A fully trained, and certified EasyMile operator will:

- Be onboard the automated shuttle throughout the entire research project; this includes all rides conducted with Ottawa transit users and employees from Tunney's Pasture.
  - This operator will have full control of the shuttle
- Serve as the customer service ambassador to address passenger questions and assist riders with accessibility requirements

### What is the Shuttle Route for This Research Project?

The automated shuttles will follow a 1.5 KM route throughout the Tunney's Pasture campus. It will leave from a stop located on Yarrow Driveway and travel for approximately 15 minutes with four stops as highlighted below.



### What Days and Times Can I Ride the Shuttle?

The automated shuttles will operate at the Tunney's Pasture campus, and host rides with research study participants from Tuesday, Nov. 3 to Friday, Nov. 13 on the following dates and times:

- Tuesday to Friday (except Nov. 11): 8am to 4pm
- Saturday and Sunday: 10am to 4pm
- Wednesday, Nov. 11: 12pm to 4pm
- Please note: Shuttles will not operate on Mondays

There are a limited number of pre-scheduled rides available on a first-come, first-served basis.

The first shuttle will be dedicated to:

- Scheduled rides for key stakeholders and up to five additional people who reside under the same roof for a *safe, pre-scheduled, and professionally managed* 15-minute ride.

The second shuttle will be dedicated to:

- Research participants with a destination in the Tunney's Pasture campus who hop on the shuttle at the stop on Yarrow Drive
  - These rides do not require booking however they are only available on a first-come, first-served basis
- Tunney's Pasture employees and up to five additional people who reside under the same roof

### **Preserving the Health and Safety of Our Community During the Pandemic**

Our project team is working in close collaboration with public health authorities to preserve the health and safety of our community. We are adopting the following protocols and measures recommended by Ottawa Public Health:

- All passengers are required to wear a face mask to board and travel in the shuttle
- Each rider must sit in an available seat to maintain physical distancing protocols
  - Some seats on the shuttles will be blocked and unavailable for passengers to help ensure a safe distance in the vehicle
- Shuttles serving pre-registered volunteers will be fully cleaned after each scheduled ride
- Shuttles serving citizens who use these vehicles as an extension of essential transportation services will be fully cleaned every two hours (per health regulations)
- The EasyMile shuttle operator will wear an N-95 mask to enhance the safety of all passengers further

### **What Organizations Are Leading This Research Project?**

- Transport Canada is supporting this research project to test and evaluate this emerging technology. Results will inform Transport Canada approaches for low-speed automated shuttles, including the development of guidance documents for connected and automated vehicles testing in Canada
- Invest Ottawa, lead economic development agency for knowledge-based industries, and founder, leader and manager of Area X.O, the futureplex of innovation and collaboration, is delivering this innovative automated shuttle research project
- EasyMile is the shuttle vendor, owner and operator
- Additional key partners include: the City of Ottawa, Ontario's Ministry of Transportation, AutoGuardian, RideShark, the National Research Council of Canada and Accenture