



Ontario Line

Lakeshore East Joint Corridor Early Works Report

October 5, 2021

Land Acknowledgement

Let us take a moment to acknowledge that we are on the traditional territory of Indigenous Peoples including the Anishnabeg, the Haudenosaunee and the Wendat peoples.

We are all Treaty people. Many of us have come here as settlers and immigrants...in this generation or generations past.

Metrolinx declares its commitment to building meaningful relationships with Indigenous Peoples.

We acknowledge the historic and continued impacts of colonialization and the need to work towards meaningful reconciliation with the original caretakers of this land.

We acknowledge that Metrolinx operates on lands covered by 20 Treaties, and that we have a responsibility to recognize and value the rights of Indigenous Nations and Peoples and conduct business in a manner that is built on the foundation of trust, respect and collaboration.

Safety Moment

Safety near rail corridors, tracks, bridges and crossings is paramount.

If you see someone dangerously close to a rail line or identify a safety hazard, call 9-1-1 or Transit Safety, 24 hours a day at **1-877-297-0642**.



The anti-trespass panels create a hard and uneven surface making it nearly impossible to walk over. Their primary function is to make people think twice before they trespass into the rail corridors.

Panel Introduction



Richard
Tucker

Ontario Line
Project Director



Malcolm
MacKay

Ontario Line
Project Sponsor



Carrie
Sheaffer

Senior Manager,
Environmental Programs
and Assessment



Brian
Bulnes

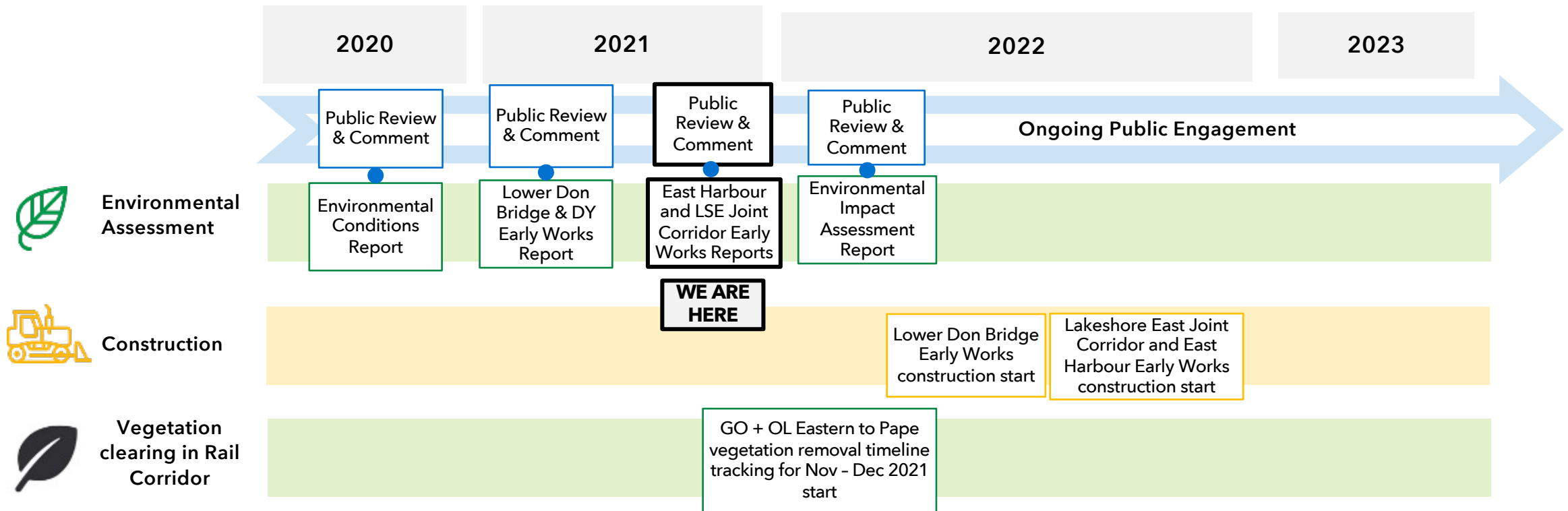
Acoustic Engineer
(AECOM)

Agenda

Lakeshore East Joint Corridor Early Works Report - East Segment:

- Noise and Vibration
- Natural Environment
- Retaining and noise wall heights
- Bridge construction
- Question and answer period

Environmental Assessment Timeline (East Harbour and Lakeshore East Joint Corridor Early Works*)

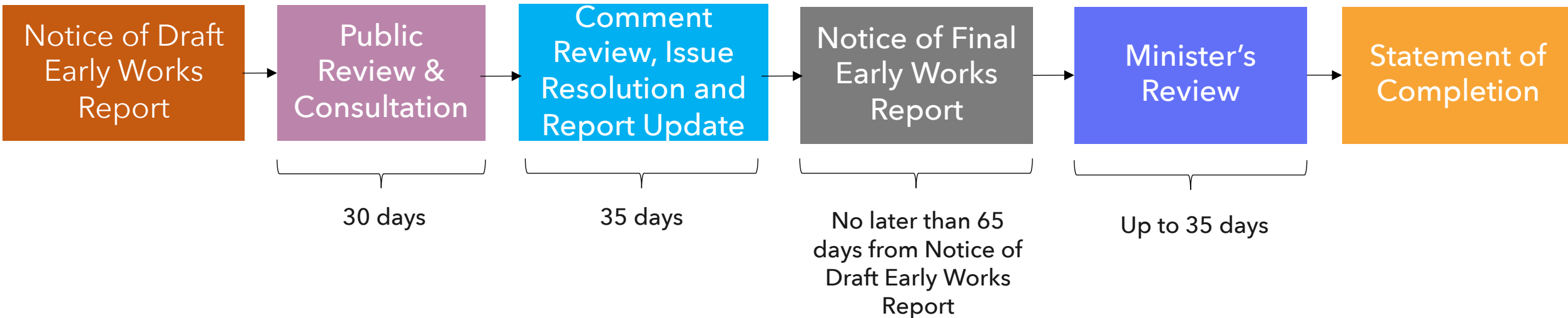


Timelines are subject to change.

* Early Works = components of the Ontario Line Project that Metrolinx proposes to proceed before the main components of the Ontario Line. Early works construction will begin after the appropriate early works report has been approved

Early Works Environmental Report Process

- The Draft Lakeshore East Joint Corridor Early Works Report has been prepared in accordance with Ontario Regulation 341/20 under the Environmental Assessment Act.



What is the Lakeshore East Joint Corridor Early Works Report?

- **Lakeshore East Joint Corridor early works will set the groundwork for major construction on the Ontario Line and GO Expansion projects**, in advance of the main contracts for both transit projects. The purpose of early works is to provide a description of local environmental conditions, potential impacts and proposed mitigation measures.
- **Early works are planned along the Lakeshore East rail corridor** between approximately **Eastern Avenue and Pape Avenue and will include:**
 - reconfiguration of existing GO tracks to support future Ontario Line infrastructure;
 - replacement of the existing rail bridges at Queen Street East, Dundas Street East and Logan Avenue;
 - construction of two new bridges at Dundas Street East and Logan Avenue to support future Ontario Line tracks;
 - construction of the foundations for GO Overhead Catenary System poles and supporting infrastructure to accommodate future fourth GO track;
 - construction of retaining walls; and
 - construction of noise barriers, including east of Pape Avenue.

Key Findings: Construction Noise and Vibration

During construction, the use of heavy machinery may cause some noise and vibration above existing levels.

Mitigation measures are identified in the Lakeshore East Joint Corridor Early Works Report to avoid, reduce or manage noise and vibration impacts.

Proven solutions to manage construction noise and vibration:

- Meet the Ministry of the Environment Conservation and Parks (MECP) noise levels standards
- Implement measures to minimize transfer of noise and vibration, where possible (*e.g., equipment must be in good working order, use of muffling devices, compressors, restrict construction hours for vibration-causing activities, hoarding, or noise barriers*)
- Before construction begins, complete pre-condition surveys at properties that may be affected by vibration-causing activities.
- Install noise monitoring equipment to monitor noise levels and identify where further mitigation is required.
- Ongoing communication and consultation with nearby residents to provide advance notice of noise and vibration causing activities.

Details are available in the *Key Findings* of the Early Works Report.



Image:

Example of a construction noise monitor.

Source: AECOM, 2017.



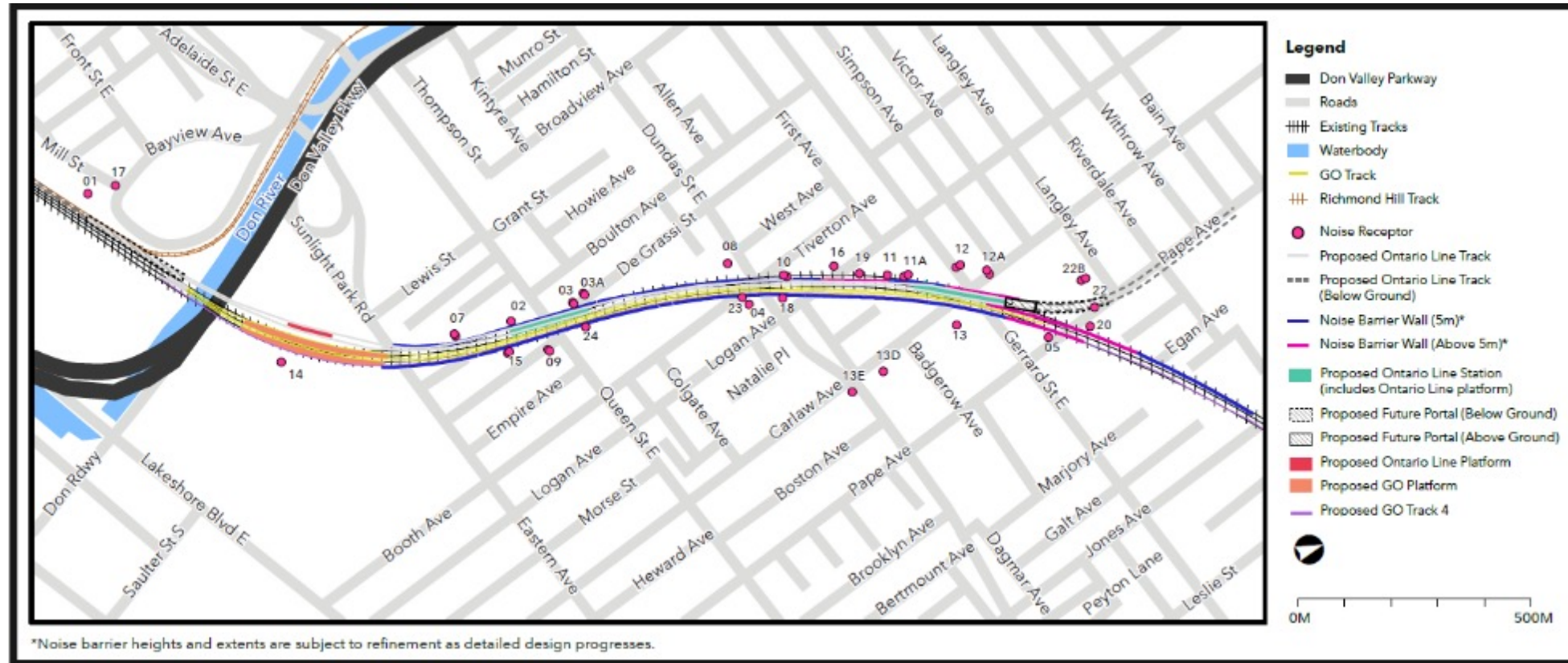
Image:

Example of a construction vibration monitor.

Source: AECOM, 2020

Key Findings: Operational Noise and Vibration Assessment

- 1 28 locations assessed, modelling both Ontario Line and GO Expansion.
- 2 Metrolinx will install noise barriers with a minimum height of five metres.
- 3 Noise barriers will reduce existing noise levels at most locations in the corridor.



How do Operational Noise and Vibration Assessment Work?

- ➡ Noise modelling and vibration analysis was conducted to predict impacts and identify mitigation solutions that will best manage those impacts.
- ➡ Impact predictions and mitigation recommendations are documented in both early works reports. Metrolinx will deliver proven solutions such as continuous noise barriers, rubber mats under the tracks, specialized fasteners, etc. *

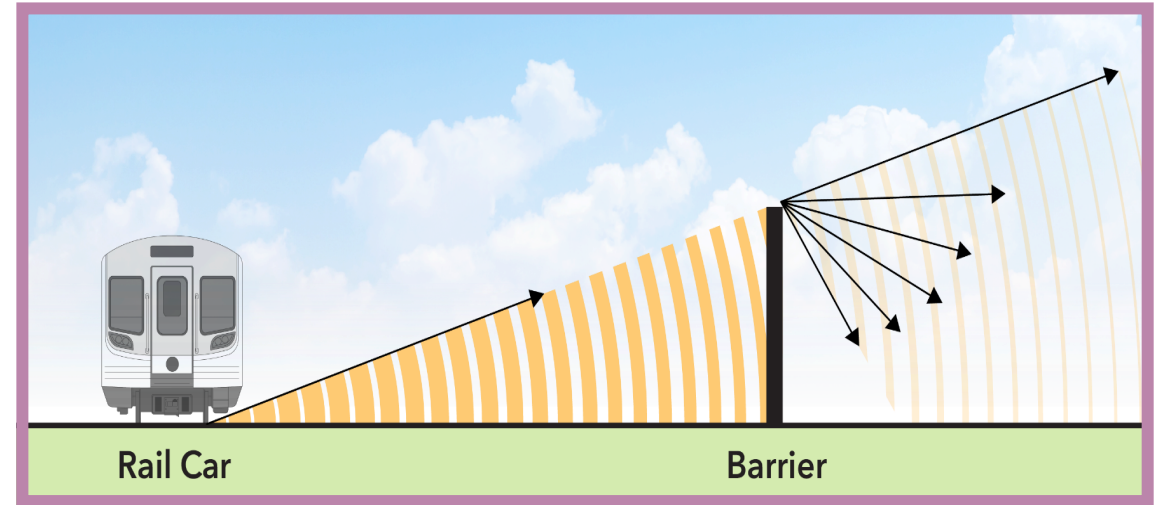


AECOM photo by Brian Bulnes

*Note: further modelling analyses are typically conducted during detailed design to refine mitigation requirements.

How Noise Walls Reduce Sound

- 1 Create a solid wall barrier between the train and the community
- 2 Noise barriers greatly reduce the direct path of noise, and bend, absorb, and bounce (reflect) sound waves off the wall, reducing disturbances to nearby homes
- 3 Use additional components such as acoustic absorptive material on the inside of the wall to further absorb sound, reducing reflections in the opposite direction
- 4 Noise is diluted gradually further from the rail corridor



***This image is intended as conceptual, and the measurements are not indicative of the future conditions in the Riverside/ Leslieville area.**

Immersive Sound Demonstration

- The demo will allow you to compare current noise levels with simulations of what it will sound like once the Ontario Line is complete - with addition of noise walls.
- Users will hear an individual GO or Ontario Line train moving behind the future noise walls.
- Additional sound demonstrations are in development for Jimmie Simpson Park and Tiverton Parkette.



Visit [Ontariolinesoundstudio.ca/listen](https://ontariolinesoundstudio.ca/listen) to experience this virtual demonstration for yourself

Click 'listen' and choose from four locations in your neighbourhood

Key Findings: Natural Environment During Construction

In preparation for construction of the Ontario Line and GO Expansion, some trees and vegetation will be protected, and others must be removed.

Measures for managing trees and the natural environment

- Promote pollinator species, habitat and compensation in accordance with the *Metrolinx Vegetation Guideline 2020*
- Where trees are required to be removed, only those necessary for the works (in the construction footprint) will be affected.
- Remaining trees will be protected using fencing/barriers.
- The area will be assessed to identify any species at risk and measures put in place to minimize impacts.
- Areas disturbed during construction will be restored.
- Erosion and sediment control measures will be put in place.
- Metrolinx is using T-wall construction to minimize impact as it allows for construction from within the rail corridor and will result in a shallower impact.



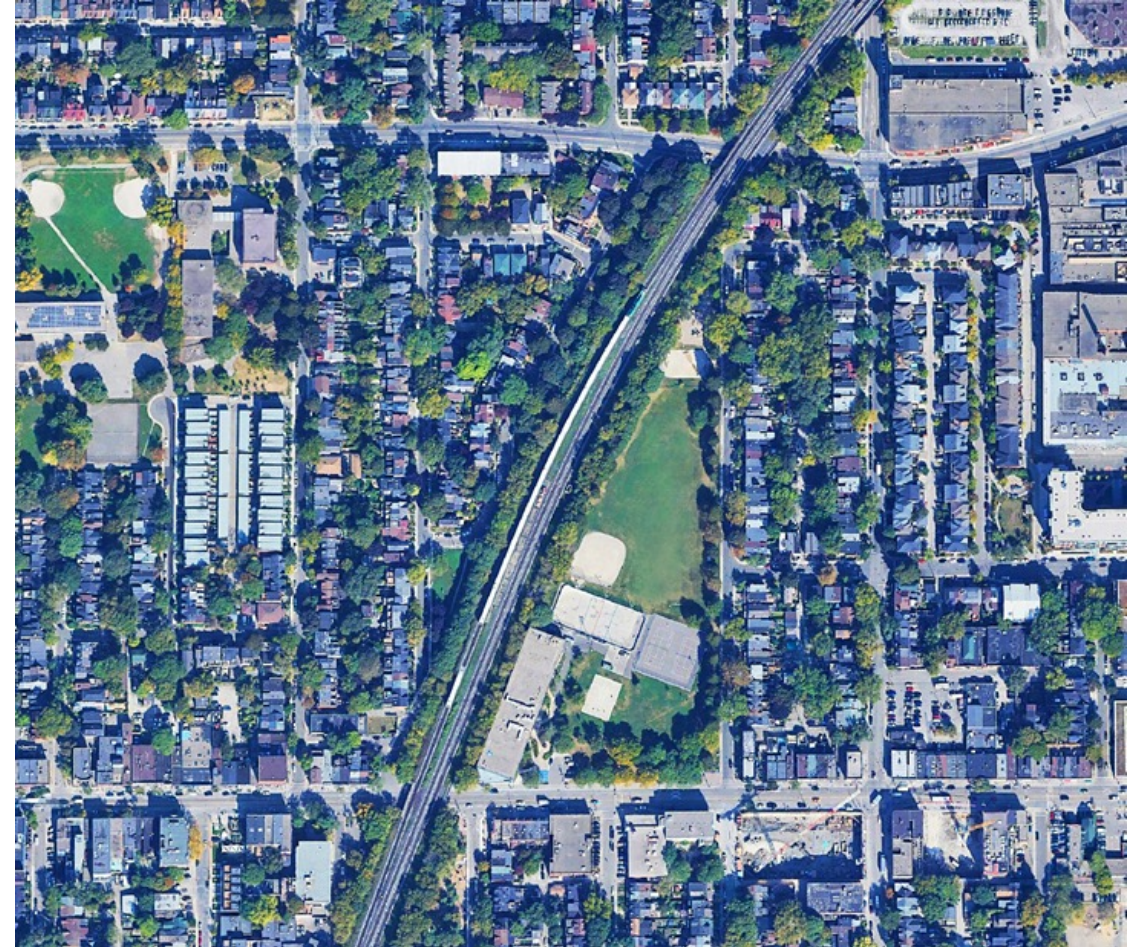
Image:

Jimmie Simpson Park, looking east along the rail corridor.

Source: Metrolinx, 2021.

Required Vegetation Removals and Compensation in LSE Rail Corridor

- To compensate the community for the required vegetation clearing, Metrolinx is:
 - working with Toronto Parks, Forestry and Recreation Division and the community to explore park enhancements and tree planting in your neighbourhood;
 - working with the Toronto Region Conservation Authority to repurpose some wood for wetland restoration projects, trail furniture, etc; and
 - consulting with the City on the tree replacement and compensation strategy for any trees that need to be removed outside the Metrolinx property boundary.



Retaining + Noise Wall and Vegetation Renderings

McCleary Playground



1 Estimated retaining wall heights in this area are between 5 - 7.5 metres.

2 Estimated noise wall heights are 5 metres.

NOTE: this rendering and measurements are approximate and are subject to change as design progresses and tree impact analysis is complete

Jimmie Simpson Park



- 1 Estimated retaining wall heights in this area are between 4 - 5.5 metres.
- 2 Estimated noise wall heights are 5 metres.

NOTE: this rendering and measurements are approximate and are subject to change as design progresses and tree impact analysis is complete

Jimmie Simpson Park with Integrated Seating option



1 Estimated retaining wall heights in this area are between 4 - 5.5 metres.

2 Estimated noise wall heights are 5 metres.

NOTE: this rendering and measurements are approximate and are subject to change as design progresses and tree impact analysis is complete

Bruce Mackey at De Grassi Street

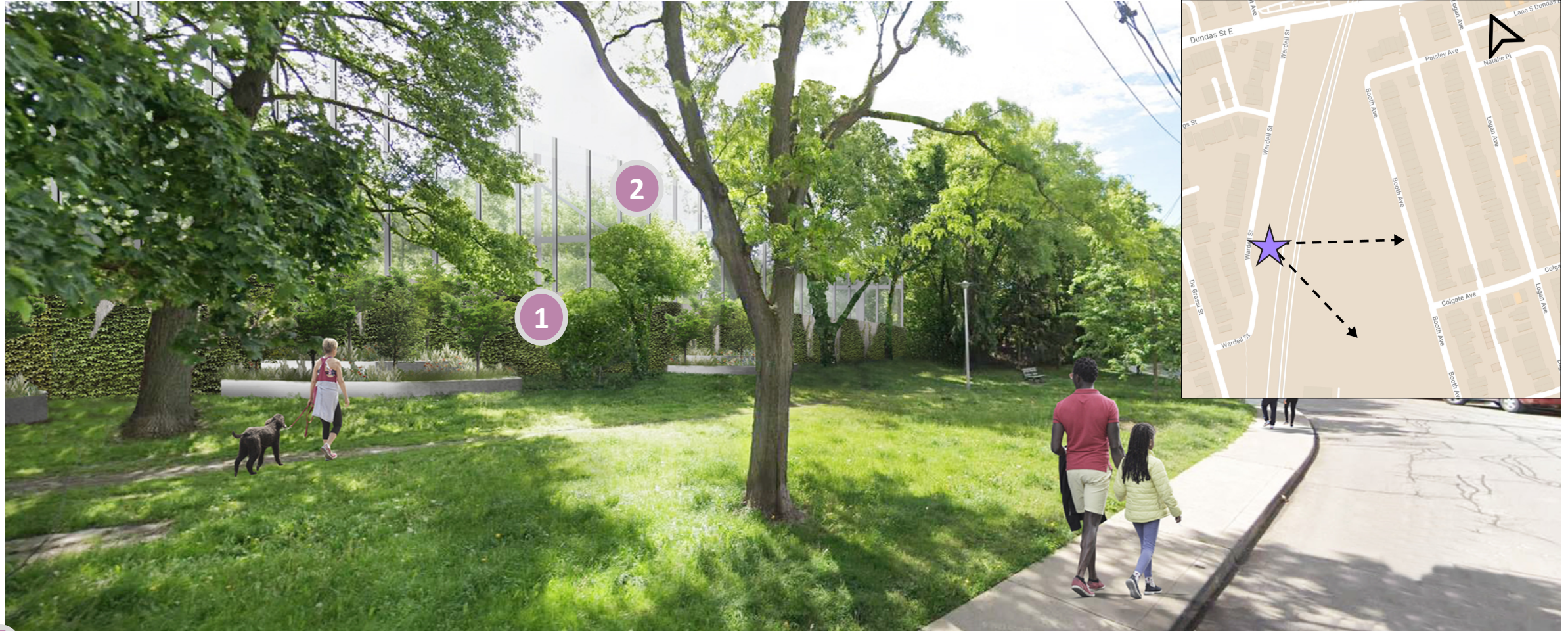


1 Estimated retaining wall heights in this area are between 6 - 7.5 metres.

2 Estimated noise wall heights are 5 metres.

NOTE: this rendering and measurements are approximate and are subject to change as design progresses and tree impact analysis is complete

Bruce Mackey at Wardell



1 Estimated retaining wall heights in this area are between 1 - 1.5 metres.

2 Estimated noise wall heights are 5 metres.

NOTE: this rendering and measurements are approximate and are subject to change as design progresses and tree impact analysis is complete

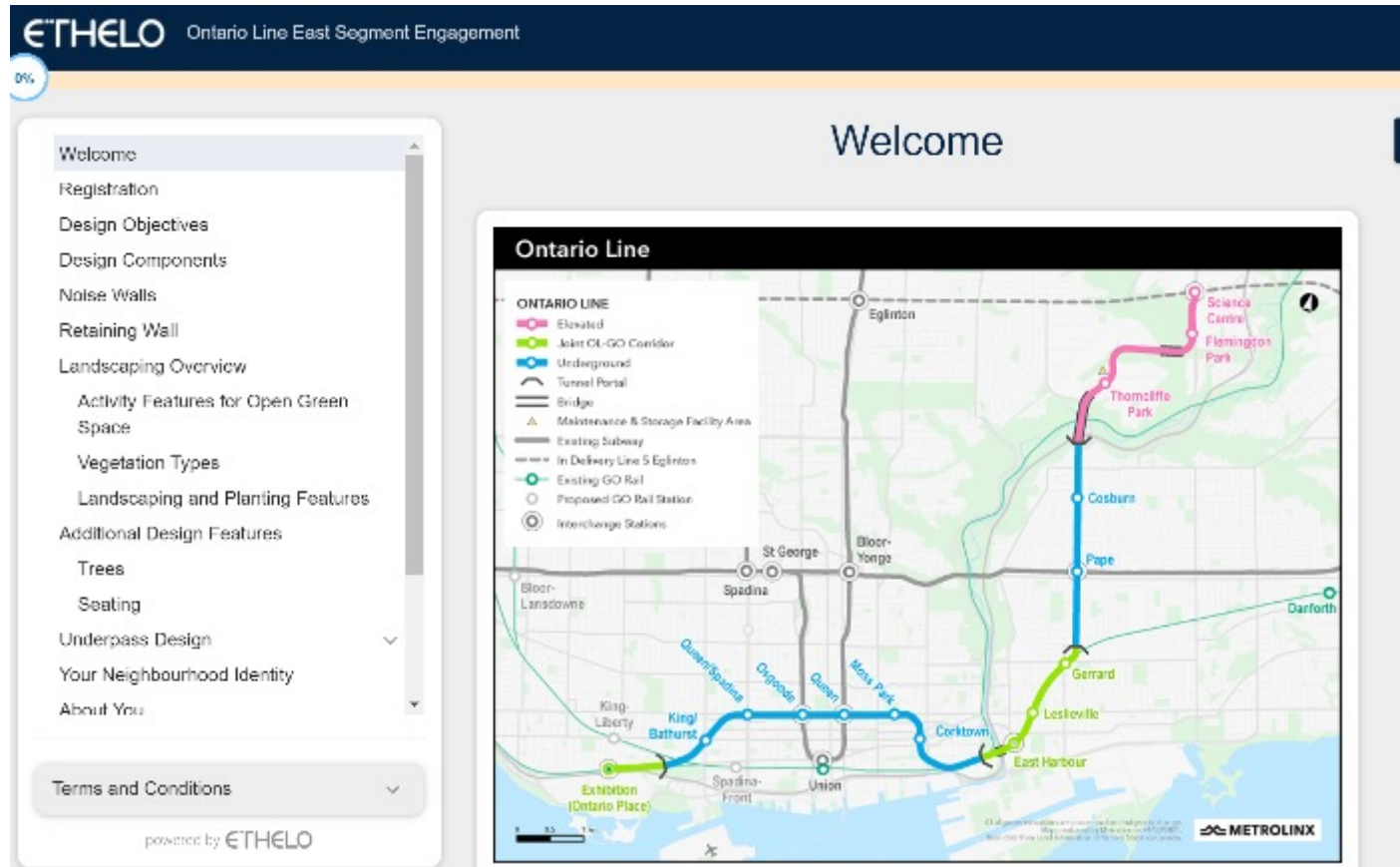
Retaining Wall Height along the Lakeshore East Rail Corridor



- A** Saulter Street Brewery – Private property near Saulter Street Parkette
- B** McCleary Playground
- C** Bruce Mackey Park
- D** Jimmie Simpson Park
- E** Gerrard Carlaw Parkette

Track alignment and location/height of retaining walls is subject to continued review and design and may change.

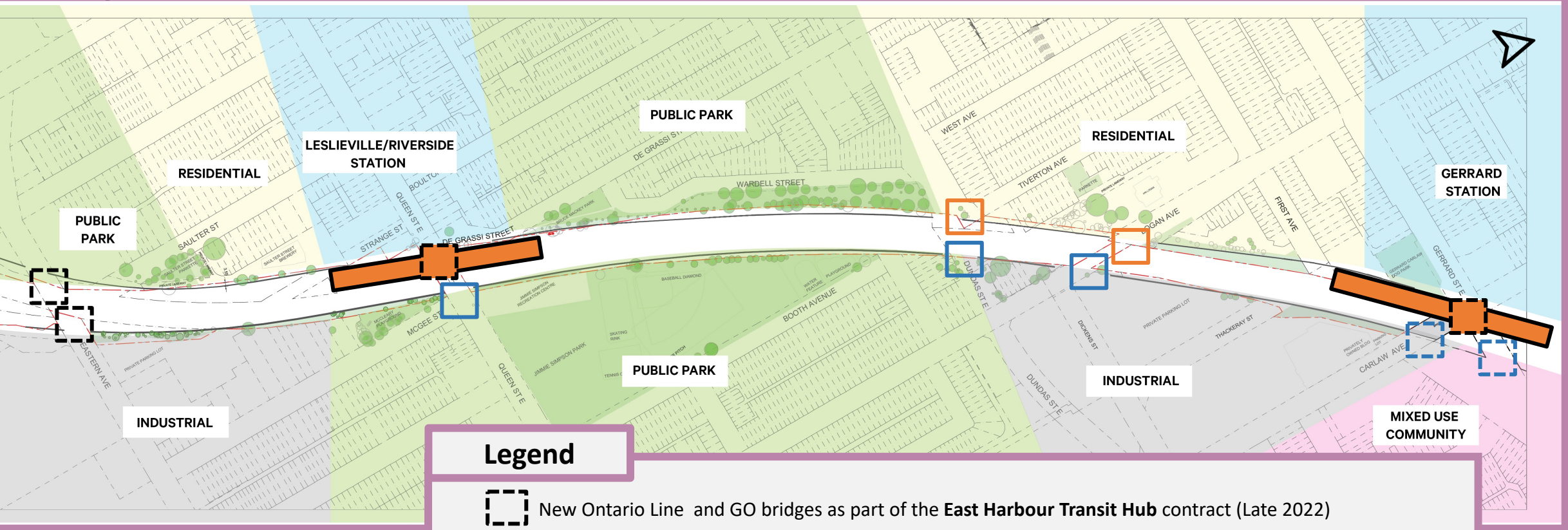
Metrolinx Launches Noise and Retaining Wall Consultation



- Survey is open until October 14, 2021.

Provide your feedback directly by visiting metrolinx-ontario-line-engagement.ethelo.net

Bridge Locations



Note: Track alignment and location/height of retaining walls are subject to continued review and design and may change. The GO structures at Eastern Ave, Queen St E, Dundas St, and Logan Ave will be replaced. Only a part of the Carlaw Ave and Gerrard St GO structures will be modified.

Legend

- New Ontario Line and GO bridges as part of the **East Harbour Transit Hub** contract (Late 2022)
- New GO bridges as part of the **Early Works** contract (Mid 2022-2024)
- New Ontario Line bridges as part of the **Early Works** contract (Mid 2022-2024)
- New Ontario Line bridges + station as part of the **North Project** contract (Starting late 2024)
- Minor structural modification to existing GO bridges as part of the **North Project** contract (Starting late 2024)

Upcoming Public Engagement for the East Segment

Retaining and Noise Walls Public Consultation

- Visit metrolinx-ontario-line-engagement.ethelo.net to provide your feedback directly to Metrolinx until October 14, 2021.
- Feedback will be compiled and made public.

East Harbour and Lakeshore East Joint Corridor Early Works Report

- Public comment period until October 24, 2021.
- Feedback will be compiled and made public through final early works reports.

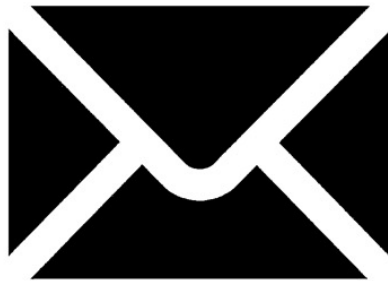
Environmental Impact Assessment Report

- Tracking for release in early 2022.

Contact us

Your feedback is vital in helping us to move the Ontario Line forward in a way that strengthens the community. We are grateful for your input.

To stay up to date on upcoming virtual events and the latest Ontario Line news, sign up for our e-newsletter at [Metrolinx.com/OntarioLine](https://metrolinx.com/OntarioLine).



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