

Ontario Line: Above-Ground Benefits

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EXECUTIVE SUMMARY

To provide the Board with an update about the benefits of running the Ontario Line above-ground in key areas, which will ensure a seamless customer experience while reducing impacts to our communities. Key topics include:

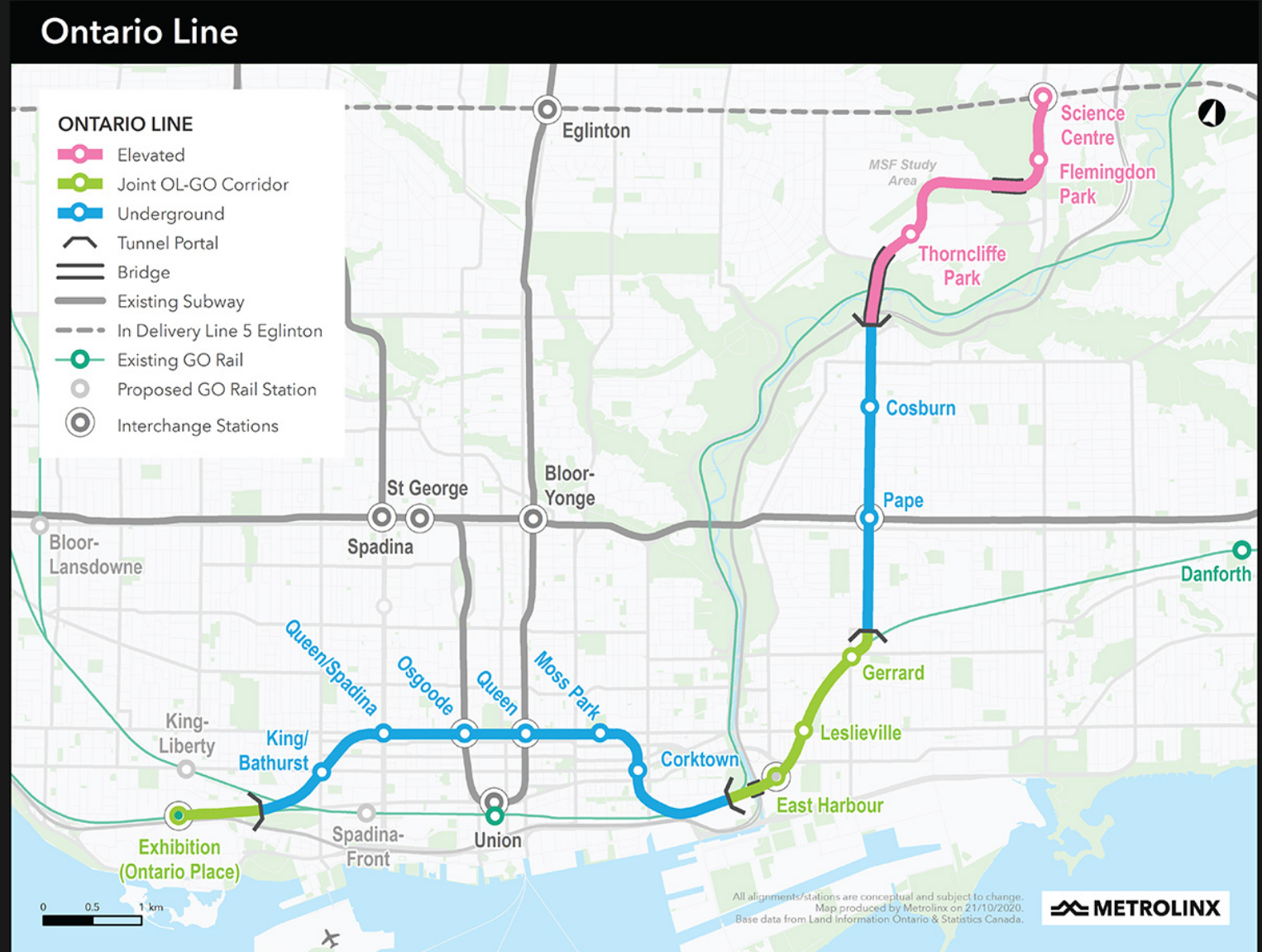
- Faster journey times;
- More frequent, safe and reliable service;
- Limiting property and construction impacts;
- Reducing noise and vibration; and
- Protecting the environment & community spaces

The presentation will also outline how we will be engaging with our communities to explain these benefits through open dialogue and a steady stream of virtual engagement channels.

OVERVIEW

Metrolinx is committed to helping communities understand how running the Ontario Line above-ground in key areas introduces key benefits while avoiding significant impacts – particularly for the communities of Riverside/ Leslieville and Thorncliffe/ Flemingdon Park.

There is also an opportunity to clear up misconceptions about the customer experience people can expect, as well as the community improvements and protections in store.



NEIGHBOURHOOD CONTEXT

Riverside and Leslieville

Existing rail corridor, originally introduced in the 1850s and now owned by Metrolinx. Residences, businesses and park spaces have since been developed around it.



Thorncliffe Park and Flemingdon Park

Dense, fast-growing area of the city with large streets that can accommodate elevated guideways while limiting impacts to neighbouring properties.



FASTER JOURNEYS

Surface stations on above-ground sections will save customers significantly more time in their journeys than if they were underground, particularly in the eastern and northern segments of the line. They will reduce connection times and encourage more transfers from streetcars, buses and GO trains to the Ontario Line.

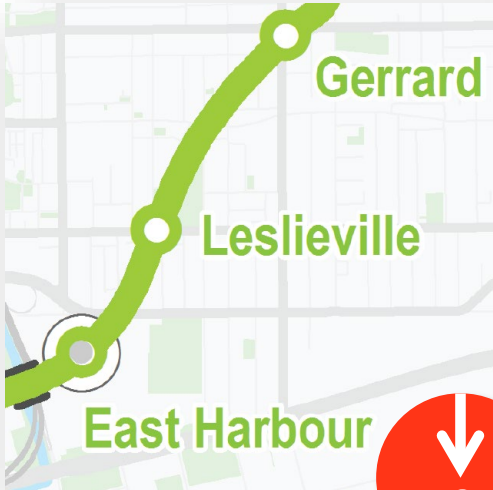
Having above-ground stations in these areas will...



- ✓ Eliminate **3 to 5** escalators needed to get from the surface to Ontario Line platforms



- ✓ Cut **4.5 to 8** minutes of added connection time between surface transit and platforms



- Tunnels/stations would need to be nearly 40 metres deep to avoid the Don River.
- Longer connections between Ontario Line and GO trains at East Harbour would mean fewer transfers and less crowding relief at Union Station.
- Similar depths would be needed until the station at Gerrard to avoid major sewer mains (midtown interceptor sewer).



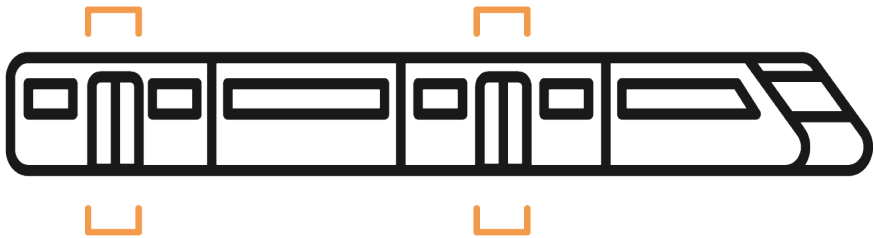
- Tunneling deep enough to reach under the Don Valley in the northern alignment would have required the station at Thorncliffe Park to be roughly 70 metres underground.
- This would be the deepest station in Toronto's transit network and its very long connection times would also discourage people from taking the Ontario Line.

SAFE, RELIABLE & FREQUENT SERVICE

 **40** per hour

.....

 **90 Second Intervals** 



Modern, industry-leading safety standards will result in smooth, reliable service that will be as frequent as every 90 seconds during the busiest hour.

- Above-ground sections of the Ontario Line trains will always run on their own dedicated tracks that will be completely separate from other rail and street traffic.
- The Ontario Line's signalling system will keep trains in constant communication with one another and track their precise locations at all times, meaning vehicles always stay a safe distance apart.
- Train doors will automatically open and close in sync with platform edge doors that will be installed at all stations, keeping both passengers and objects safely separated from moving vehicles. With sensors that can detect objects on the tracks, trains will also automatically stop if there is something blocking the way.
- Metrolinx has partnered with the Canadian Standards Association (CSA) to develop a process for assessing and evaluating risks associated with railway systems.

LIMITING IMPACTS TO HOMES AND BUSINESSES

Tunneling and excavating is time-consuming and disruptive. Minimizing this type of work drastically cuts down on impacts to communities and shortens construction timelines.

**Ontario
Line**



Streamlined construction

In Riverside and Leslieville, coordinating Ontario Line and GO expansion work in the same joint rail corridor streamlines construction that would have been spread out into separate areas under previous plans. This will reduce the amount of properties needed for the project and minimize impacts to local traffic and streetcar services during construction.

5 excavations avoided

Under the previous proposal, tunneling plans in Riverside and Leslieville would have resulted in five major excavation sites and adjoining construction laydown areas in the community, which would have impacted multiple businesses and residential properties. Similar impacts could be expected if the line was tunneled in Thorncliffe/ Flemingdon Park.



AVOIDING PORTAL INTERFERENCE

The Ontario Line needs to be above-ground at East Harbour to give GO customers a new quick and easy transfer to the local transit network, helping to relieve congestion at Union Station **by up to 14%.**

Recognizing these benefits, community members have asked...

"Why can't the Ontario Line run underground through Leslieville and Riverside and rise above-ground just before East Harbour?"

- ✗ Would need to rise above-ground through a portal at Queen Street, leaving no room for a station.
- ✗ Would result in permanent street closure, major impacts to neighbouring properties, and increased construction traffic on local streets.
- ✗ Would extend construction by 15 to 24 months.
- ✗ Would increase cost by \$805M to \$1B.



Brentcliffe Avenue portal



TTC Streetcar portal to St. Clair West Station

REDUCING AUTO EMISSIONS

- The Ontario Line will contribute to healthier communities across the city by reducing reliance on cars and curbing greenhouse gas emissions.
- Operating electric-powered trains will ensure that no additional emissions are introduced to communities due to the Ontario Line.
- The planned electrification of numerous GO train services that will run alongside Ontario Line trains in sections of joint rail corridor will also benefit air quality.

Daily reduction in traffic congestion:

28,000 fewer cars on the road



Yearly reduction in fuel consumption:

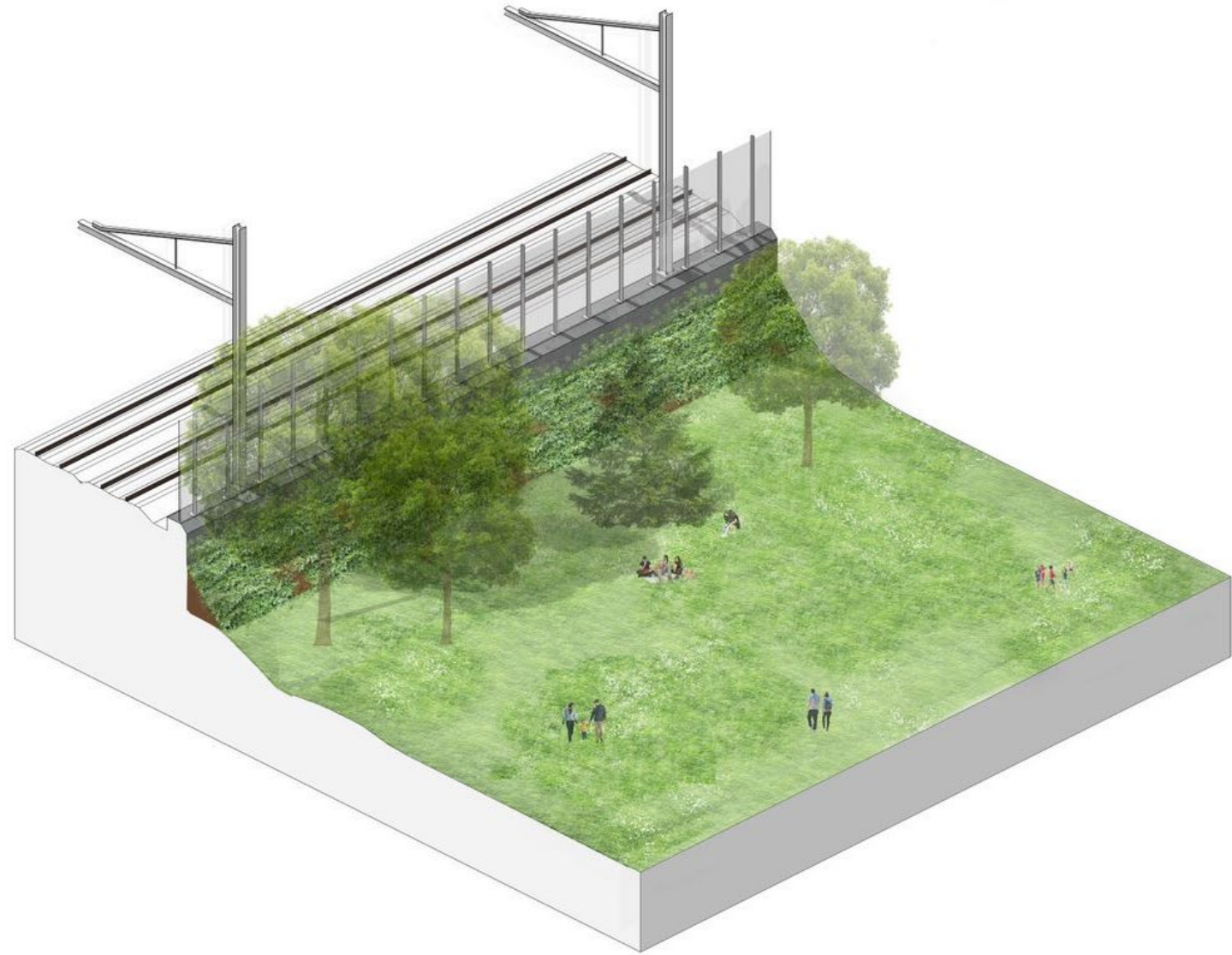
7.2 million litres

Equivalent to 120,000 fewer fill ups at the pump



NOISE WALLS & LANDSCAPING

- Continuous noise walls will be installed in certain above-ground areas, including in Riverside and Leslieville where existing GO and VIA rail services will also be shielded.
- Wherever possible, these noise walls will be surrounded by trees, plants and attractive landscaping to enhance the appearance of the space for the community.
- The image to the right is a concept diagram of this approach in Jimmie Simpson Park. Final designs would be subject to further study, as well as robust consultations with the City of Toronto and the local community



Designs are not final and may change through further reviews, including ongoing environmental and feasibility studies.

NOISE & VIBRATION SOLUTIONS

The new Ontario Line tracks will be a continuous rail design with no joints supported by rubber bases, ensuring trains run smoothly and quietly throughout the community.

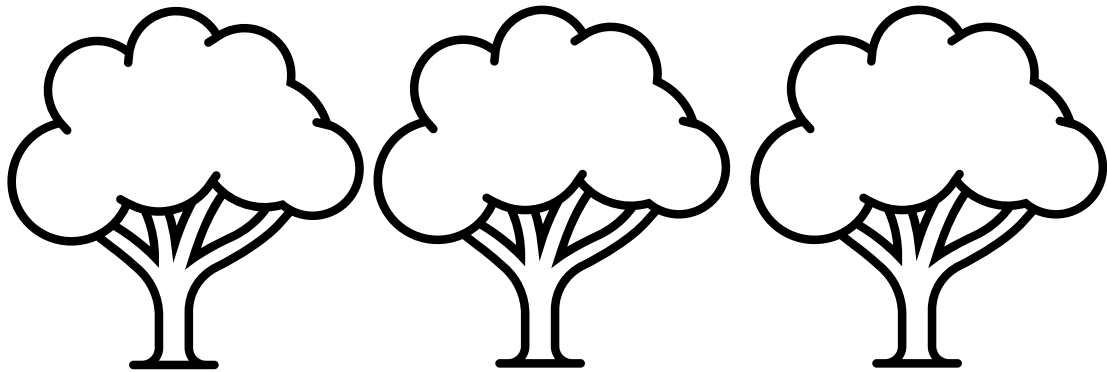


Modern technology and high maintenance standards will significantly curb noise and vibrations.

- ✓ Automated train operations will reduce human error when it comes to braking, resulting in smoother, quieter stops.
- ✓ Continual track/vehicle maintenance and frequent monitoring and inspections will also contribute to quiet, unobtrusive operations.

PARKS & TREES

- Fitting much of the Ontario Line within property Metrolinx already owns in Riverside and Leslieville will limit its footprint and help protect neighbouring park space and properties, including the Jimmie Simpson Recreation Centre, Fontbonne Place, and many others.
- As many mature trees as possible will be identified and protected. When a tree needs to be removed, Metrolinx will work with the City of Toronto to plant three new ones within its park space.
- Metrolinx will also take the opportunity to work with experts to remove invasive plants and plant native species in their place.



1:3

**RATIO
FOR TREE
REMOVAL VS
PLANTINGS**

ENGAGING WITH OUR COMMUNITIES

Continue to enhance and increase open dialogue and information sharing across multiple channels.

- Project website: **Metrolinx.com/OntarioLine**
- Engagement portal: **MetrolinxEngage.com/Ontario Line**
- Email: **OntarioLine@Metrolinx.com**
- Dedicated Ontario Line e-newsletter
- Virtual meetings and open houses with community members, businesses, local leaders
- Virtual office hours/appoint bookings
- Community Connectors program
- Metrolinx News blog
- Social media
- Informational flyers, handouts (physical distancing observed)
- Existing external community forums

Encourage broad participation in important project milestones coming up later this year.

- **March to April:** Community engagement on noise walls, key project updates
- **Summer:** Public consultation on draft environmental report for early works on Lower Don Bridges; community office opening (dependent on public health guidelines)
- **Fall:** Public consultation on draft early works environmental report for early works within Joint Corridor (Riverside/Leslieville)



