

Ontario Line

Corktown Virtual Information Session on Piling Construction

April 17, 2024

 **METROLINX**



Artist's rendering. Subject to change.

Safety Moment

Commute on Transit

Whether you're taking the subway or the GO Train, safety is paramount. Here are quick tips for a safer rail commute:

- 1. Mind the Gap:** Watch your step and be mindful of the gap between the platform and the train.
- 2. Hold On:** Always grip handrails or grab bars while the train is moving to prevent falls.
- 3. Stay Alert:** Be aware of your surroundings and report any suspicious activity or items to transit staff.
- 4. Respect Personal Space:** Avoid crowding fellow passengers and keep bags clear of walkways to prevent accidents.
- 5. Watch Your Step:** Be cautious when boarding or exiting, especially in adverse weather or low-light conditions.
- 6. Know Your Route:** Familiarize yourself with the rail system's map and schedule to navigate confidently and avoid delays.



Introductions

Speakers

Contracting Authority



Ross Andersen
Senior Advisor, Community Engagement
Metrolinx

James Francis
Senior Manager, Subways Program
Metrolinx

Constructor



David Ou
Project Manager, Corktown

Chloe Fayet
Senior Project Coordinator, Corktown
Ontario Transit Group

Francisco Metcalf /
Aga Szczotka
Environmental Management
Ontario Transit Group

Agenda

Welcome Introduction

Presentation

- Ontario Line overview
- Progress to date
- Construction look-ahead
- About piling construction
- Reducing impacts

Q/A and Discussion

Meeting Guidelines

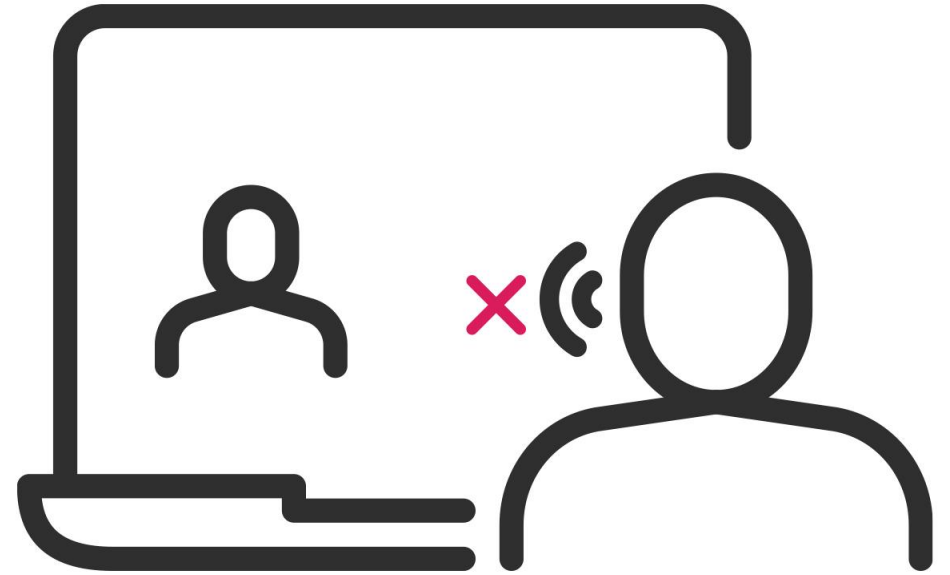
- Please help us create a **respectful space** for both panelists and fellow participants.
- We want to answer as many questions as possible, so **please keep your question brief.**
- Please ask **one question at a time**; if you have a second question, we will loop back to you.
- We'll have dedicated time for questions, so please note them down and we'll have an opportunity for you to raise your questions after the presentation.
- Today's meeting will be focused primarily on construction impacts in the Corktown area, including piling. As such, for other topics, we may connect with you by phone or email after the meeting or speak to those topics at the Corktown CLC.

Having audio issues?

Please dial in by phone;

Tel: 437-703-4197

Code: 626581245#



How to join **Slido** to Ask Questions through text



Ask your questions through Slido and we'll be answering some of the questions that were submitted previously through Slido.

Two ways to submit your questions:

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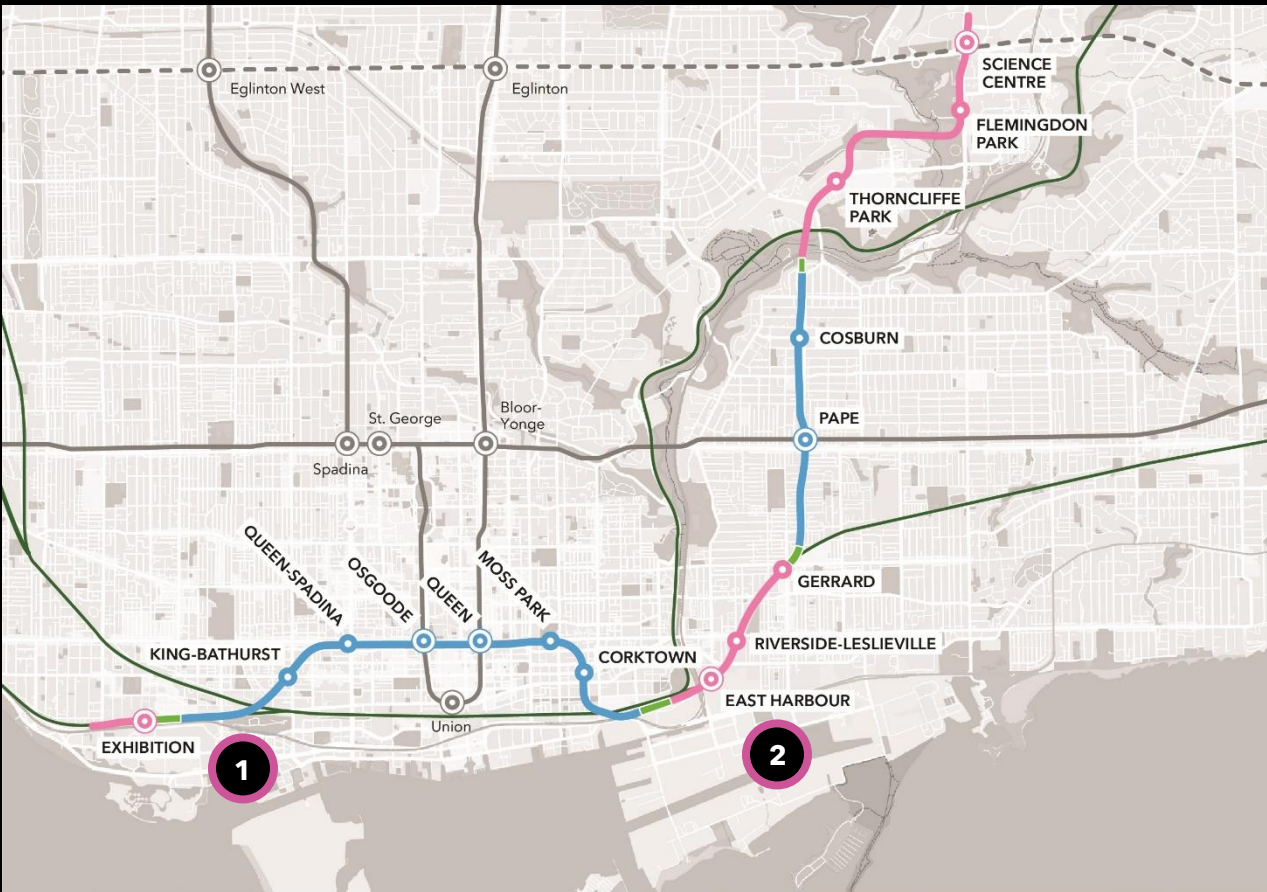


*Please note that it will take a moment for your question to become live on the system.

Ontario Line

About the Ontario Line

Ontario Line Subway



- 1 South Alignment of Ontario Line** (Exhibition to Corktown/Don Yard)
- 2 North Alignment of Ontario Line** (East Harbour to Science Centre)



15.6 kilometres long



15 stations



As frequent as every 90 seconds during rush hour



227,500 more people within walking distance to transit



388,000 daily boardings



40+ connections to other transit options



Up to 47,000 more jobs accessible in 45 minutes or less, on average



28,000 fewer cars off the road each day

About Ontario Transit Group (OTG)

Ontario Transit Group (OTG) is a joint venture between **Ferrovial Construction** and **Vinci Construction Grands Projets** to design, build and deliver the **southern portion of Ontario Line Subway** - Southern Civil, Stations and Tunnel work. The contract was awarded in November 2022.

Stations:

- **One above-ground station** to be integrated with the existing GO Transit Exhibition Station.
- **Two underground stations** to be integrated with the existing TTC Osgoode and Queen subway stations.
- **Four new underground stations** (King/Bathurst, Queen/Spadina, Moss Park, Corktown).

Tunnel:

- **6-kilometre tunnel** and associated tunnelling works from Exhibition to Don Yard portal.



Ontario Line South Civil spans Exhibition to Don Yard portal (west of the Don River), shown in yellow.

Ontario Line

Corktown Station construction look-ahead

Corktown Station 2024 construction look-ahead

Major construction milestones to propel the Ontario Line subway forward:

Time	Activity	Details & Purpose
Winter 2023-24/Spring 2024	Archaeological investigations	Archaeological work completed on North site. South site expected completion in Spring 2024.
Spring 2024	Site Hoarding	Hoarding installation is ongoing. The purpose is to define the long-term construction zone during tunnel and station works. It will assist with public safety, noise mitigation and site protection.
Spring/Summer 2024	Piling	Piling work around the perimeter of the future station ensures structural support before excavation begins.
Summer / Fall 2024	Excavation	Soils will be excavated to create shafts from the street level to the station level 30m underground.

North Site

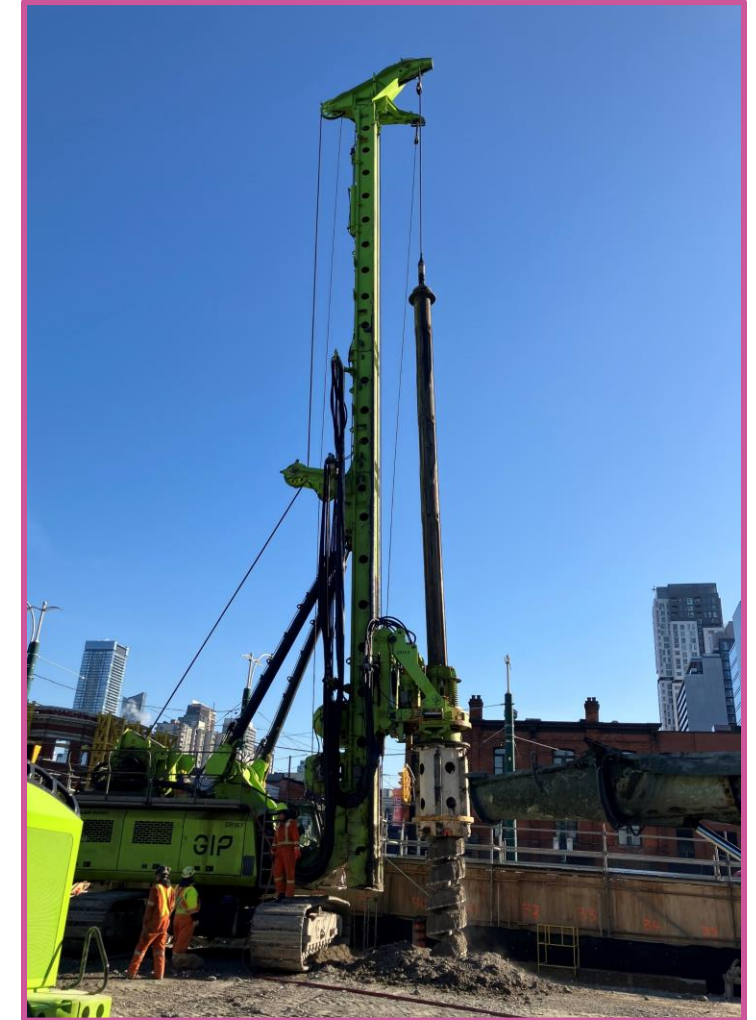


Ontario Line

**Focus on:
Pile drilling**

How does piling work?

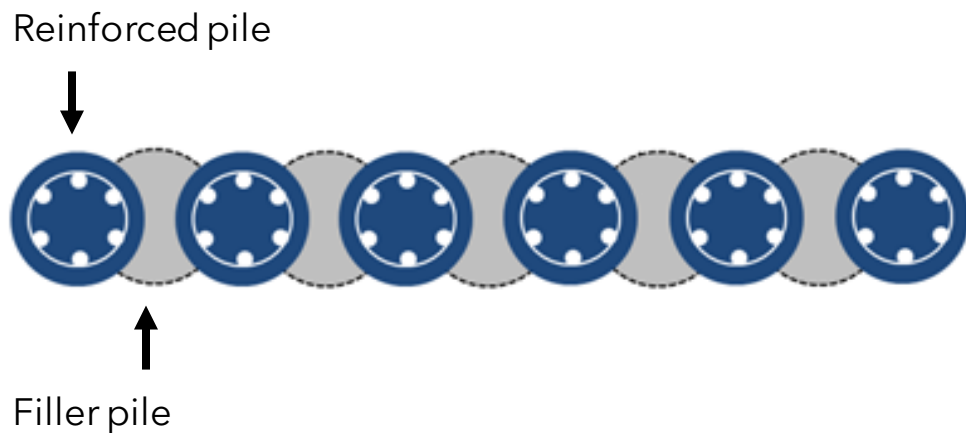
- Piling is a foundational technique used to construct underground structural support systems.
- Pile walls will be installed around the perimeter of the future station's footprint. It will ensure stability and support for the surrounding infrastructures and buildings during the construction of station.
- A pile wall consists of overlapping (secant) piles to form an underground water-tight retaining wall. This activity is performed before excavation of the station shaft.



Drilling machine used in pile construction

How does piling work?

- First step is to install a guide wall around the perimeter of the shaft to ensure proper location and positioning of the pile.
- To install the piles, a drilling rig will auger holes between 12m to 15m in depth, at 1m in diameter, along the guide wall.
- Piles will be drilled in an alternating pattern between primary (filler) and secondary (reinforced) piles.
- Once the hole is completely drilled, a crawler crane will install the pile reinforcement and then the hole will be filled with concrete.



Typical example of guide wall installation to properly align the secant piles

How does piling work? (continued)

Secant Piled Wall

Visualization of what a secant pile system provides upon excavation.

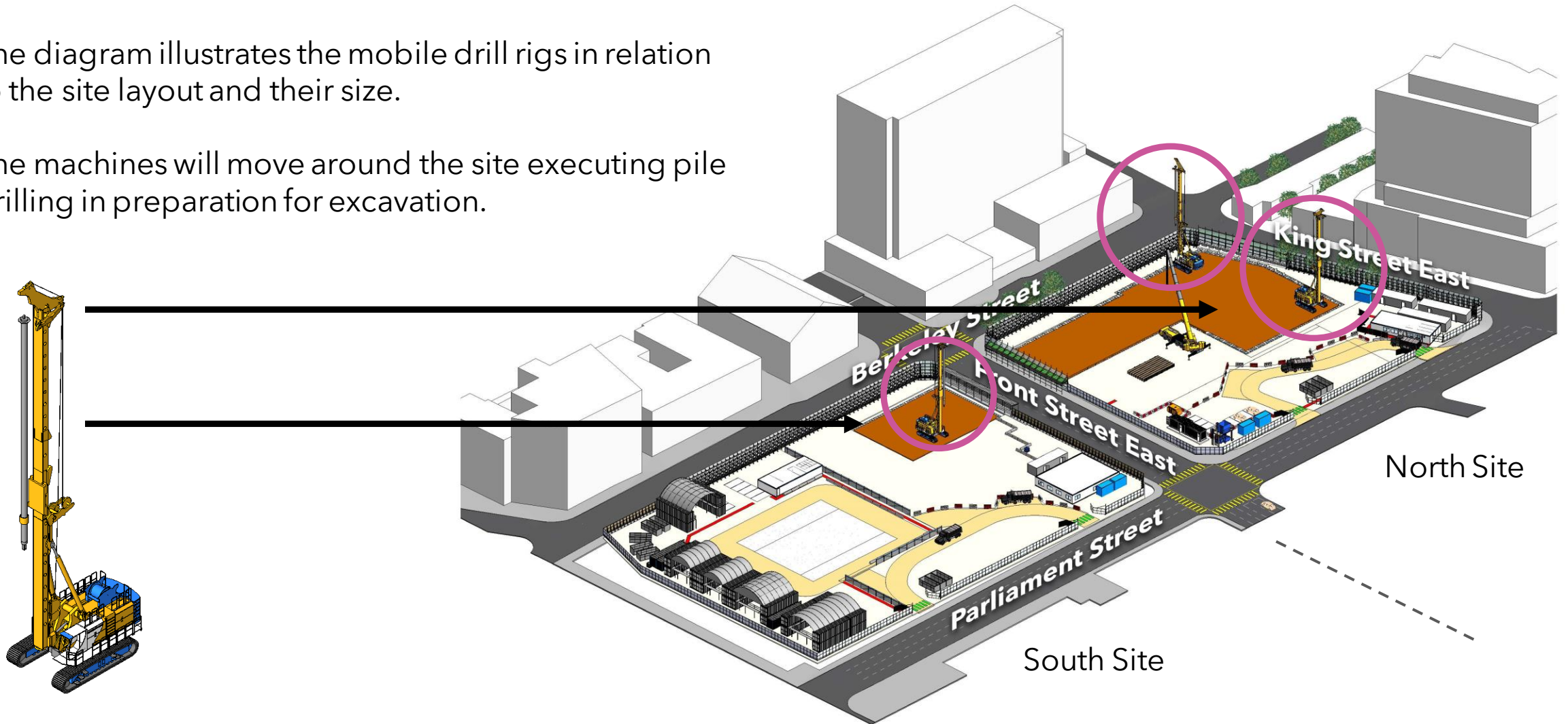
The concrete secant piles can be seen supported by struts (white steel), in the open excavation.



Example of secant pile wall

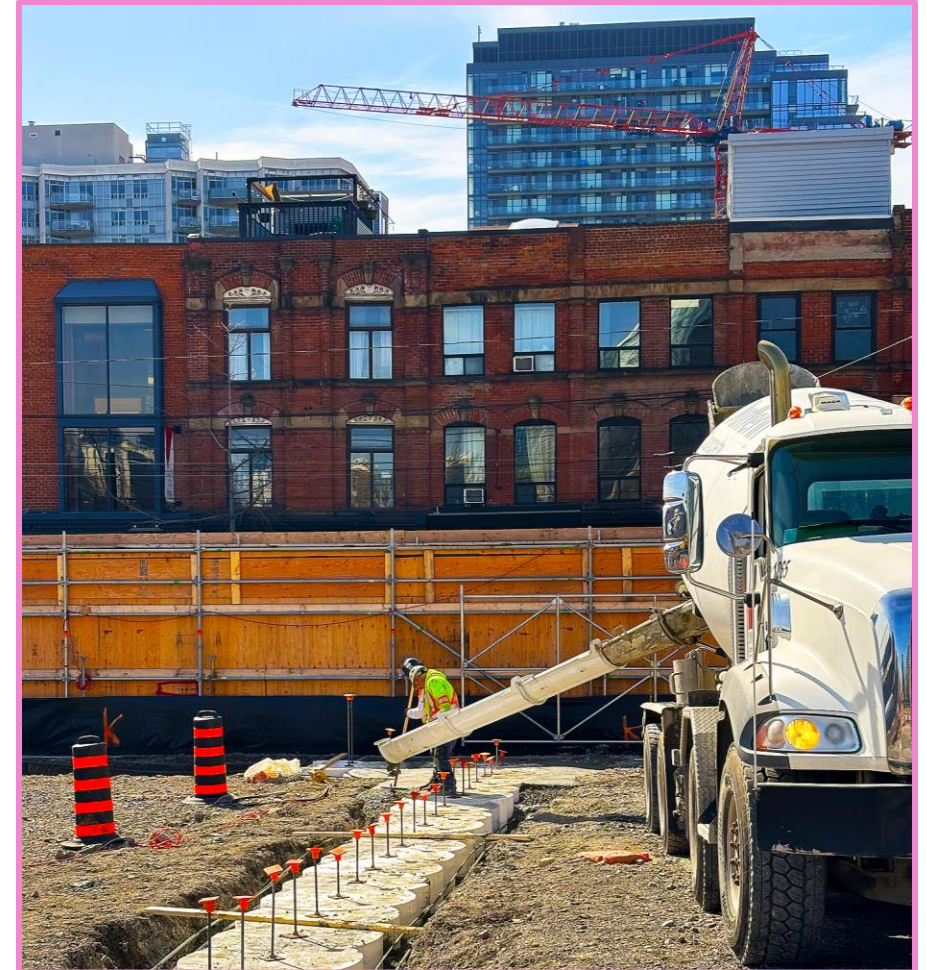
Pile drilling site set-up & layout

- The diagram illustrates the mobile drill rigs in relation to the site layout and their size.
- The machines will move around the site executing pile drilling in preparation for excavation.



Pile drilling schedule in Corktown

- Piling works will be phased, beginning with the guide wall installation as early as April 29th.
 - Hours of work are weekdays from 7:00 a.m. to 7:00 p.m. Saturday work and/or extended hours may occur as needed.
 - Work is estimated to take place from late April 2024 through end of August 2024 in the north site and from July to mid-September 2024 at the south site.
- *Dates are subject to change.



Example of a guide wall installation in progress

What to expect in the community

- Noise from equipment drilling piles, loading of excavated material, deliveries of steel beams and concrete is expected.
- Equipment used during this operation includes drilling machines, cranes, excavators, concrete pumps, and concrete trucks on-site.
- Approximately 30 trucks entering and leaving worksites daily, following a specified route.
- Certified flag-persons in place to ensure safety for the community and workers on-site.
- Piling equipment will remain within the work site for the duration of the piling process.



Example of a drill rig delivery

Ontario Line

**Reducing impacts to
the community**

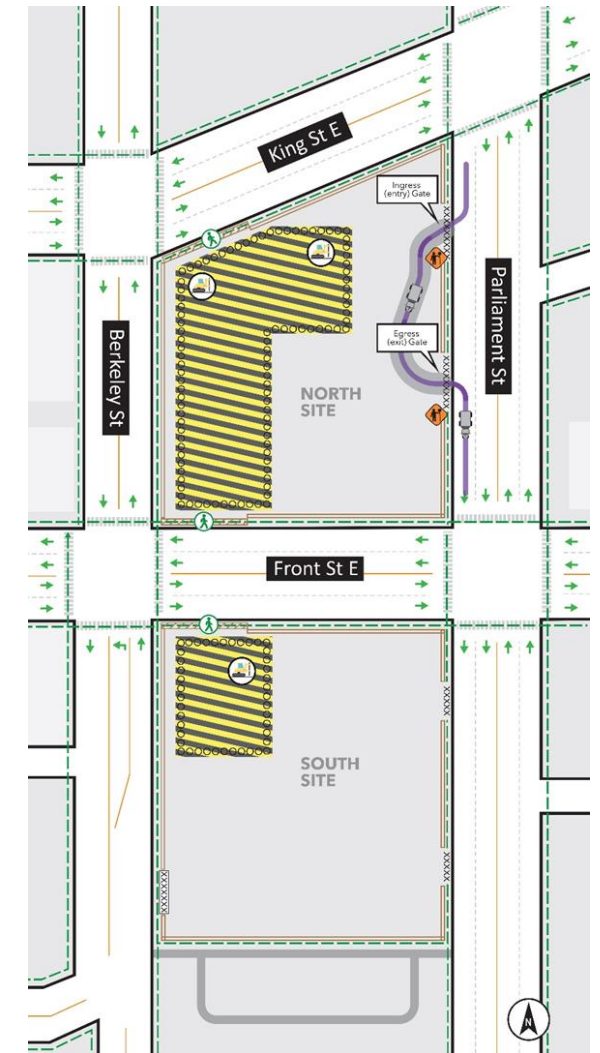
Site traffic and pedestrian impacts

Trucking Haul Routes

- Coming from the EAST trucks coming from the Don Valley Parkway to Richmond Street will enter from Parliament Street and turn right into the site assisted by a flag-person(s).
- Coming from the WEST trucks coming from the Gardiner Expressway up Sherbourne Street to King Street East and accessing Parliament Street will turn right into the site assisted by a flag-person(s).
- OTG delivery trucks are contractually instructed not to arrive on site before 7am.
- Haul routes for the south site are being determined in collaboration with the City of Toronto and will be announced at a later date.

Pedestrian and Traffic Impacts

- All sidewalks will remain open. Pedestrians will continue to use Parliament Street. Flag-persons will assist with passage when trucks approach the entrance and exit points.
- Overhead protections along the sidewalk will ensure public safety
- All roads will remain open. No impacts to the 504 King Streetcar, 65 Parliament bus and the 172 Cherry bus routes, transit stops or schedule at the intersection of King Street East and Parliament Street.



Reducing impacts

To reduce impacts to residents and businesses in the area, mitigations will be in place including:

- Daytime work hours for current phase of work (7:00 a.m. to 7:00 p.m.).
- 5-meter-high noise wall along King Street East, Berkeley Street and Front street East to help reduce noise.
- Use of auger cleaner on the drill rig to reduce noise level.
- Continuous loop truck routes, reducing need for trucks to reverse using back-up alarms.
- Air quality monitoring to track dust debris and vehicle emissions to ensure that construction activities don't impact the quality of the environment.
- Dust control measures.
- Street sweepers and wheel cleaning as needed to ensure soil and sediment is kept off city streets and sidewalks.



Example of 5m high hoarding / noise wall



Example of Auger cleaner

Monitoring noise and vibration levels:

- Noise and vibration live monitoring devices placed on-site and in neighborhood for active tracking of impact to ambient noise levels.
- Utilizing sound meters and real-time monitoring systems, OTG can track and control noise emissions to help minimize disturbances to the community and ensure project regulations compliance.

Hoarding & noise barriers serve as effective solutions to absorb and contain some construction noise.



How to join Slido to Ask Questions through text



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Two ways to submit your questions:

Join Slido now by visiting **slido.com** and entering **code #1259065**

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Asking Questions Tonight

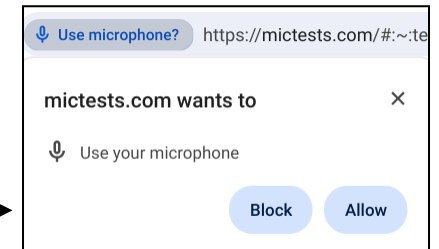
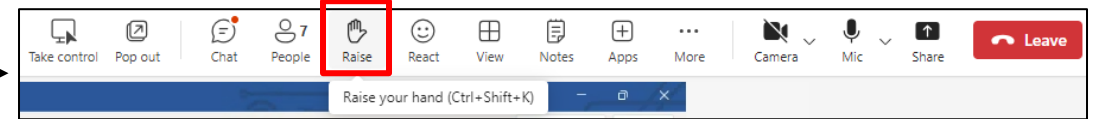
To ask a question, you can type into Slido (see link provided on slide #11) or raise your hand:

Desktop / Laptop / Chromebook:

- Raise your hand from the bar at the top of the screen.
- Your question will be placed in the queue.
- When it comes your turn, the meeting organizer will enable your mic.

***You still need to unmute yourself:** click the "mic" icon at the top of the screen.

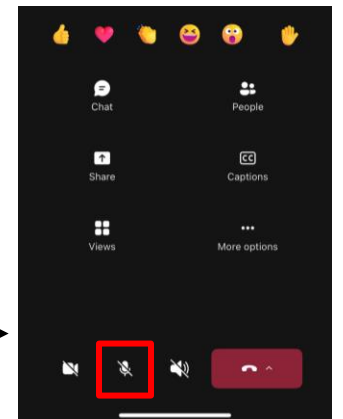
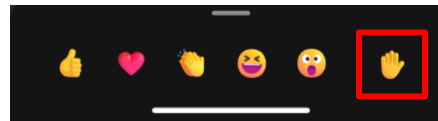
***Note:** your browser may ask your permission to use your mic. You must "allow" it.



Phone

- Click the hand icon from the bottom of the screen.
- Your question will be placed in the queue.
- When it comes your turn, the meeting organizer will enable your mic.

***You still need to unmute yourself:** swipe up & click the "mic" icon at the bottom of the screen.



South Site



Contact Metrolinx and stay connected

Metrolinx will keep the community informed by providing Ontario Line updates and addressing questions and concerns effectively, and quickly.

Connect With Us:

-  Email: OntarioLine@metrolinx.com
-  Telephone 24/7: 416-202-5100
-  Ontario Line e-newsletter: [Metrolinx.com/OntarioLine](https://metrolinx.com/OntarioLine)

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