

Ontario Line

# King-Bathurst Station Virtual Open House on Excavation

July 11, 2024

 METROLINX



# LAND ACKNOWLEDGEMENT

Treaties and Reserves in the Greater Golden Horseshoe



Let us take a moment to acknowledge we are on lands that have been, and continue to be, home to many Indigenous Peoples including the Anishnabeg, the Haudenosaunee and the Huron-Wendat peoples.

We are all Treaty people. Many of us have come here as settlers, as immigrants or involuntarily as part of the trans-Atlantic slave trade, in this generation, or generations past.

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

We acknowledge that Metrolinx operates on territories and lands covered by many treaties that affirm and value the rights of Indigenous communities, Nations and Peoples.

We understand the importance of working towards reconciliation with the original caretakers of this land. At Metrolinx, we will conduct business in a manner that is built on a foundation of trust, respect and collaboration.

## INTRODUCTIONS - SPEAKERS

Contracting Authority



Constructor



**Mark Clancy**  
Senior Manager,  
Subways Sponsor  
Metrolinx



**Dante Mejia**  
King-Bathurst Deputy Station Manager  
Ontario Transit Group



**James Francis**  
Senior Manager,  
Subways Sponsor  
Metrolinx



**Sara Segten**  
Environmental Management  
Ontario Transit Group

# Agenda

## Welcome

- Introductions – today’s presenters
- Housekeeping

## Presentation

- Ontario Line overview
- Construction look-ahead
- About excavation construction
- Reducing impacts

## Q/A and Discussion

# Meeting Guidelines

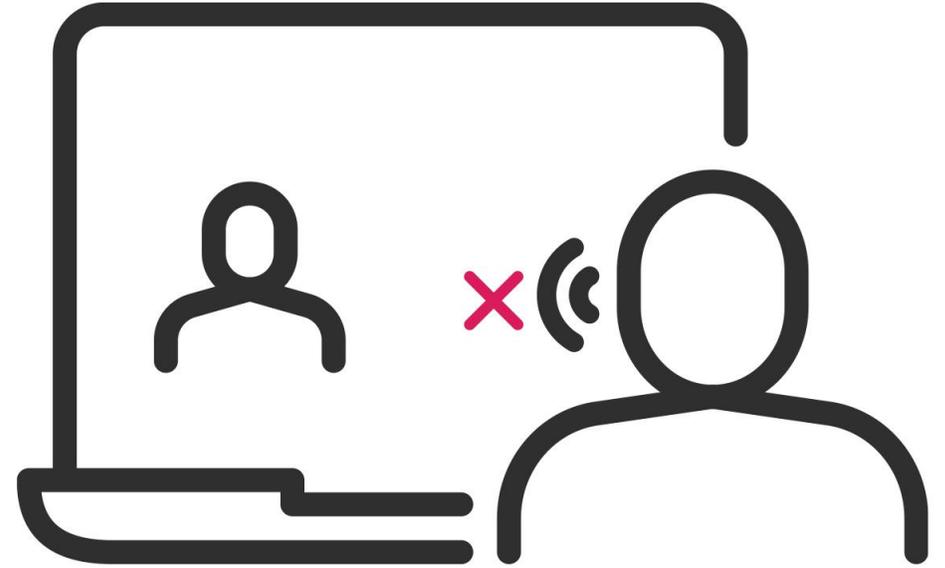
- Please help us create a respectful space for both panelists and fellow participants.
- We want to answer as many questions as possible, so **please keep your question brief.**
- Please ask **one question at a time**; if you have a second question, we will loop back to you.
- We’ll have dedicated time 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 King-Bathurst area, including excavation.** As such, for other topics, we may connect with you by phone or email after the meeting or speak to those topics at the King-Bathurst session.

**Having audio issues?**

**Please dial in by phone;**

**Tel: 437-703-4197**

**Code: 619032447#**



## HOW TO JOIN SLIDO - ASK QUESTIONS THROUGH TEXT



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

### Two ways to submit your questions:

Join Slido now by visiting **slido.com** and entering **code #2056312**

OR

**scan** this QR code to join on your phone.



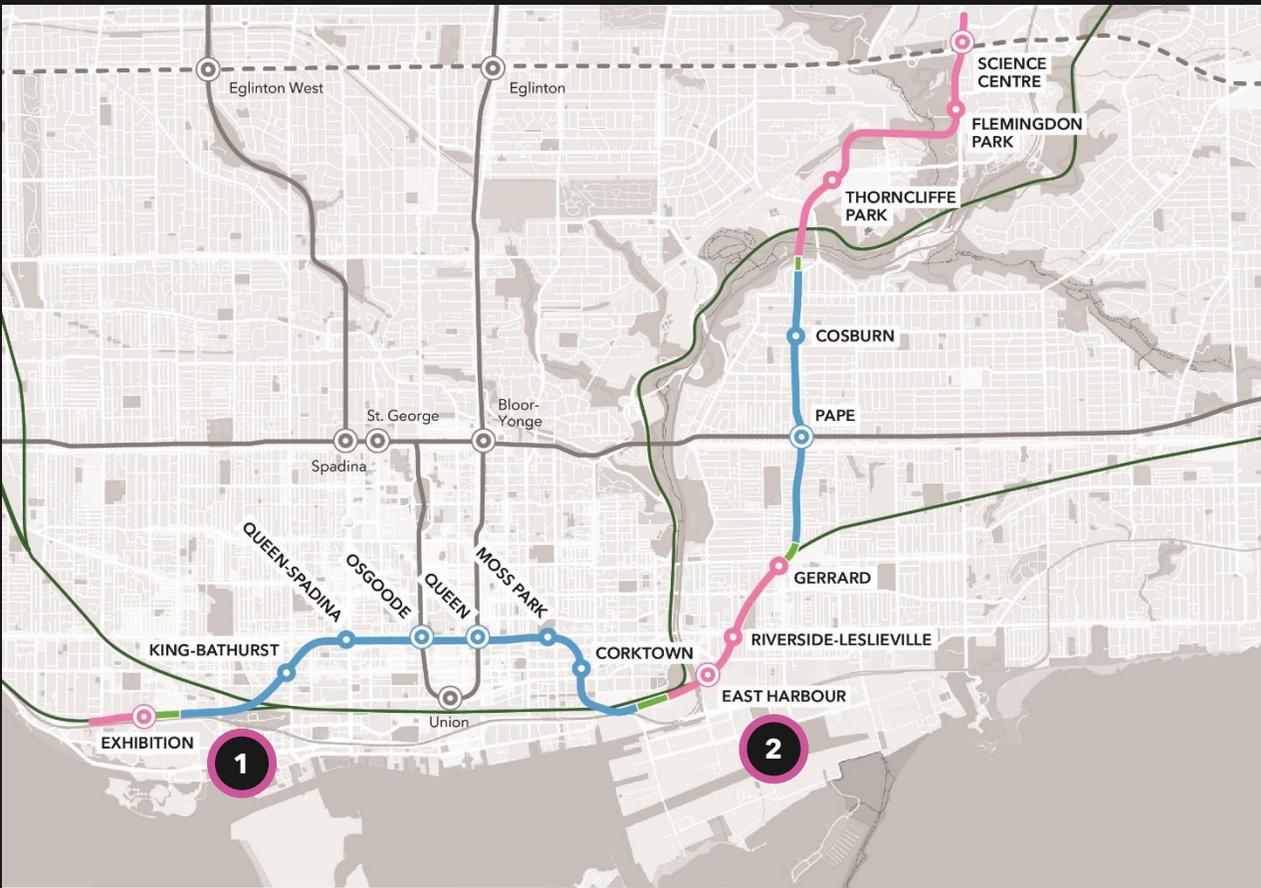
\*Please note that it will take a moment for your question to become live on the system.

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# About the Ontario Line



# Ontario Line Subway



— At Grade / Elevated   
 ● Station   
 — Existing GO Rail   
 - - - Future Line 5 Eglinton   
 ● Interchange Station   
 — Tunnel Portal   
 — Tunnelled   
 — Existing Subway   
 0 0.5 1 km   
 METROLINX

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 THE 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:

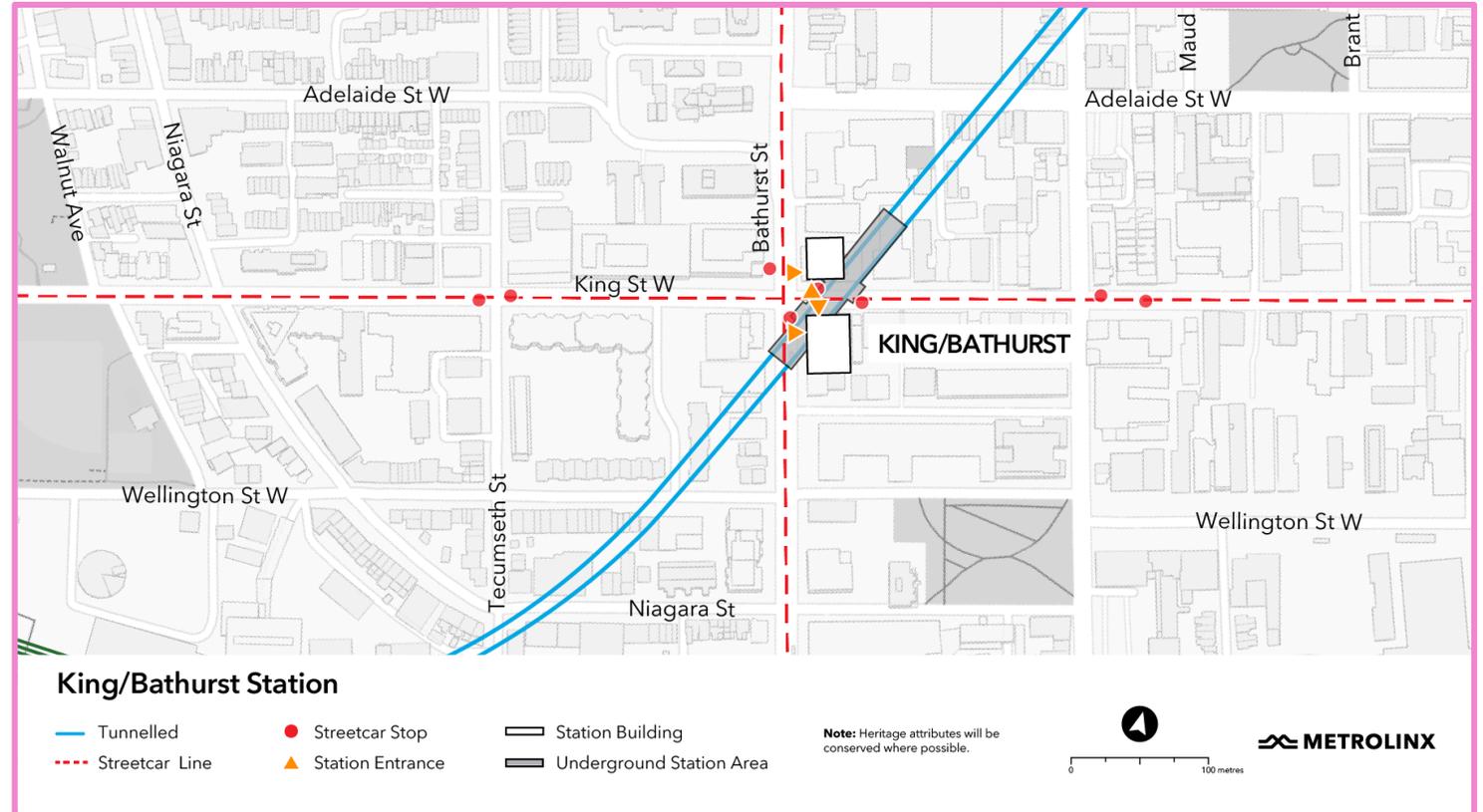
- **6-kilometre tunnel** and associated tunnelling works from Exhibition to Don Yard portal.



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

## KING-BATHURST STATION OVERVIEW

- **Two entrances will be built on the east side of Bathurst Street**, one on the north side of King Street West, and one on the south side of King Street West.
- At the north site, the buildings were demolished, and the heritage features are being stored off-site until completion of the station, when they will be rebuilt.
- At the south site, part of the heritage façade remains in place for the duration of station construction.
- Both entrances include an opportunity integrated development above.



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# King-Bathurst Station Look-Ahead



# KING-BATHURST STATION 2024 CONSTRUCTION LOOK-AHEAD

## Major construction milestones to propel the Ontario Line subway forward.

Time	Activity	Details & Purpose
<b>Summer</b>	Piling completion	Piling work around the perimeter of the future station structures ensures structural support before excavation begins; this process is nearing its completion.
	Acoustic Shelter Installation	A large-scale canopy to cover and protect the excavation site, while reducing noise and dust for the community.
	Start of Excavation	Soils will be excavated from north and south sites to create shafts from the street level to the station level, 40m underground.
<b>Fall/ Winter 2025</b>	Excavation	Excavation through rock (from north and south sites) to create shafts from the street level to the station level, 40m underground. The station cavern will also be excavated, connecting the station shaft and the tunnels, from north site.

## START OF EXCAVATION AT KING-BATHURST

- Preparation works **will begin in July 2024**, including delivery of materials, delivery and assembly of cranes and installation of an acoustic shelter (north site).
- Excavation works will begin **first** at the **south site in August 2024**, followed by the **north site**.
- Multiple phases of excavation work will continue through September 2025. The community will be informed of changes to excavation hours of work as it occurs.
- **For excavation, work hours will vary based on the type of construction:**
  - The primary work hours for excavation taking place between 7:00 a.m. and 11:00 p.m. on weekdays, and 7:00 a.m. to 5:00 p.m. on Saturdays.
  - Overnight work at north site will be required from July 15 to 31, 2024 to install and assemble the crane (7:00 p.m. to 7:00 a.m.)



*Ongoing construction of King-Bathurst station, at the north site, on the NE corner of King Street West and Bathurst Street.*

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# Focus on: Shaft Excavation





**CARDAN**  
Road Cleaners

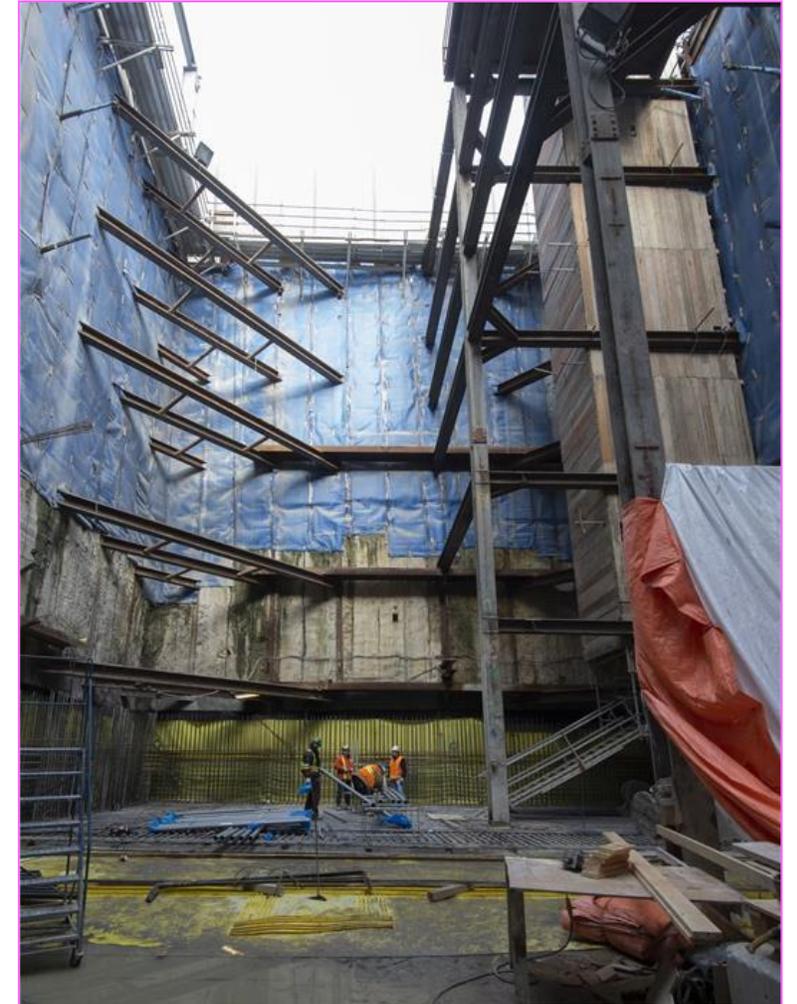
905.497.9200 | 905.213.0510  
www.cardanroadcleaners.com

NA →



## WHAT IS EXCAVATION?

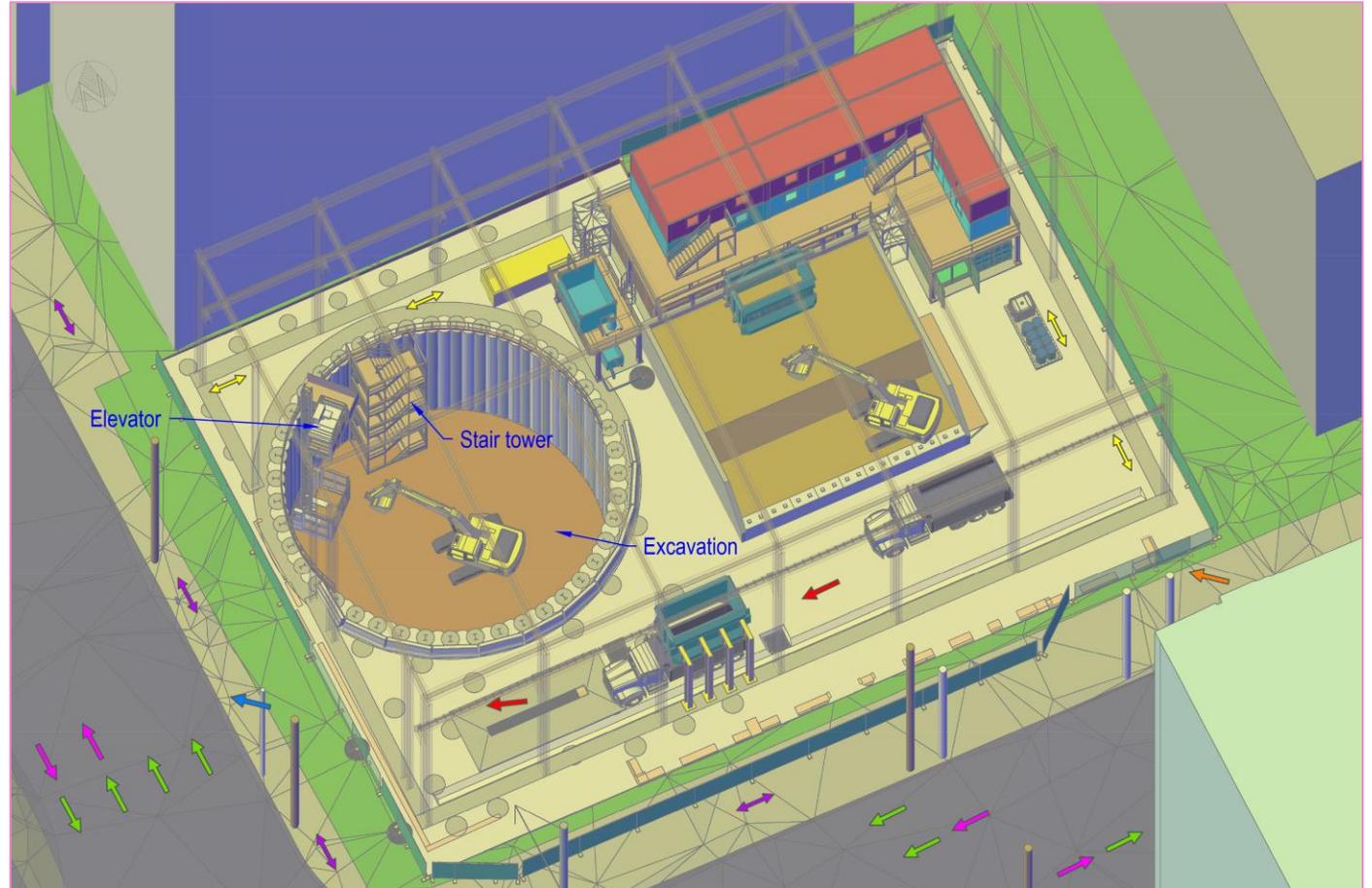
- Excavation, or in this case, shaft excavation, involves creating a vertical or near vertical passageway from surface to the final depth where the subway tunnel and station will be constructed.
- With the use of specialized equipment, work crews will remove soil and bedrock to a depth of 40m, deep into the shaft.
- The newly drilled and poured secant pile walls help secure the perimeter of the excavation zone. Shotcrete and rock bolts ensure stability of the shaft itself.
- Additionally, on the south shaft, a system of walers and struts (horizontal beams, pictured at right) will be installed to ensure wall stability.



*Example of shaft excavation, with walers and struts.*

## SET UP & PROGRESSION OF EXCAVATION - NORTH SITE

- Preparation for excavation will commence in July 2024 and the first phase of excavation work will run through the end of 2024.
- An acoustic shelter will be installed prior to the start of excavation.
- Excavation involves removing the surface layers using excavators, dozers or other suitable equipment.
- Teams will be excavating sequentially in layers, while continuously installing support systems (shotcrete and rock bolts) to add stability.
- The excavation will create a future space for station construction and access to the Ontario Line platform level.
- An overhead crane will be used to complete excavation works, inside of the acoustic shelter.



*Expected staging for north site; note an acoustic shelter will be placed above*

## SITE SET-UP - NORTH SITE

### Overhead Crane

- An overhead crane will be delivered in July.
- This type of crane can move back and forth across the construction site, allowing it to load materials and deliver them to precise locations; in this case, above the future excavation shaft.
- The overhead crane will help construct the upcoming on-site inside the acoustic shelter, as it lifts equipment and hoist up the excavated material during the shaft and tunnel excavation.

### Self dumping bins

- These bins are designed to automatically dump excavated contents, ultimately reducing manual effort and maximizing production efficiency and site safety.



*Example of an overhead crane used inside of an acoustic shelter during excavation*



*Example of a self dumping bin*

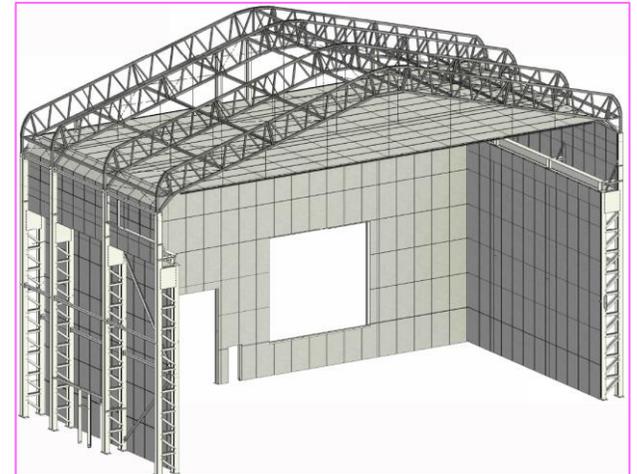
## SITE SET-UP - NORTH SITE

### Acoustic Shelter

- At the north site, an acoustic shelter will be installed over the course of this summer, including ventilation and lighting installation.
- The shelter will be built by a mobile crane, which operates on-site.
- Acoustic shelters are large, steel frame supported tents, acting as protection from the elements for excavation work, as well as a noise barrier for machinery, and to prevent excess dust and dirt from entering the community.
- An acoustic shelter is being installed at the north site due to the footprint (size) of the site and expected working hours required to complete the station construction.



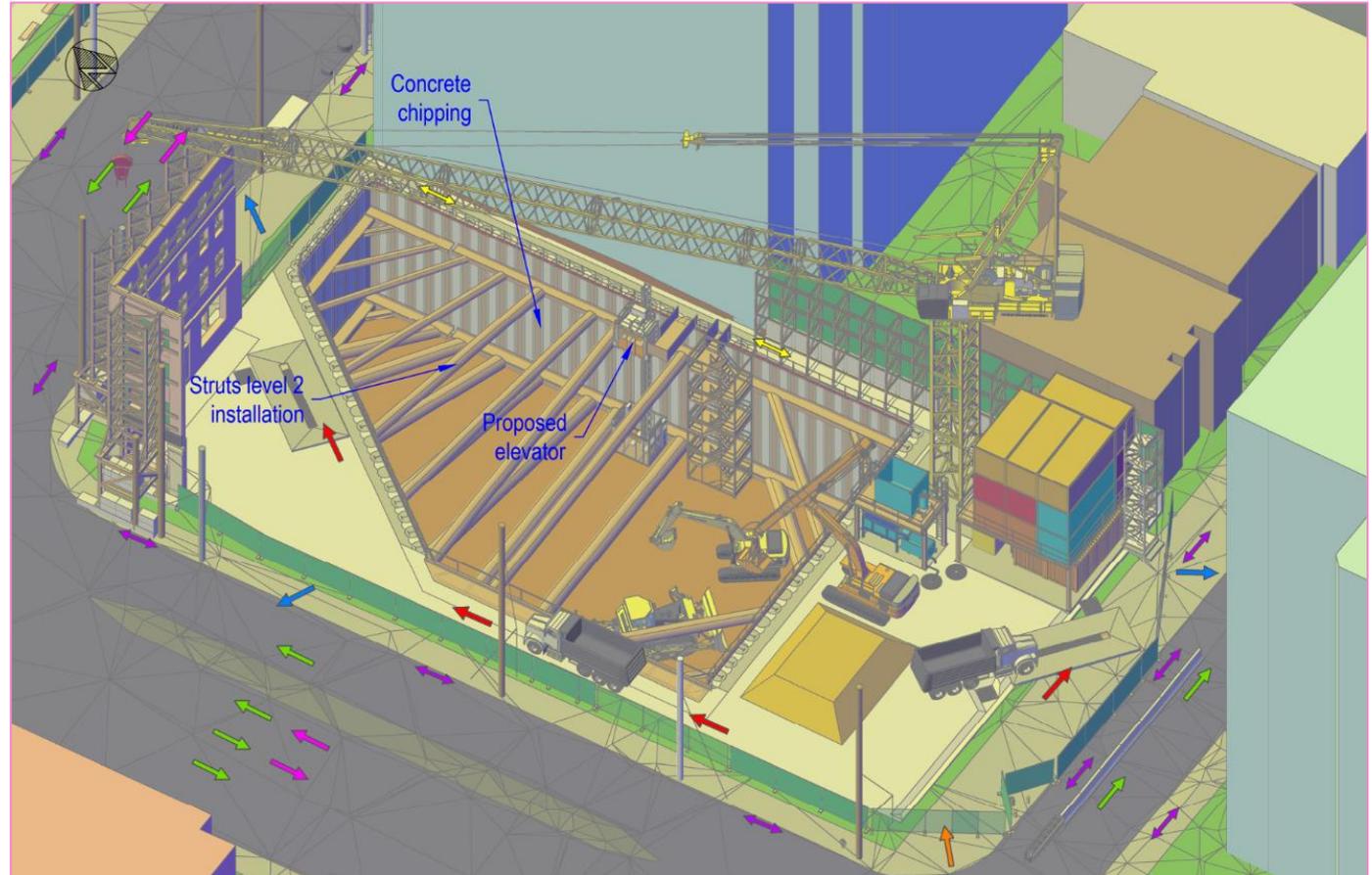
*Example of an acoustic shelter*



*Cross section diagram of the north site shelter*

## SET UP & PROGRESSION OF SHAFT EXCAVATION - SOUTH SITE

- Preparation will commence in July 2024, and the first phase of excavation work will run through the end of the year.
- At the south site, a tower crane will be delivered in early fall and installed to complete excavation works.
- Excavation will involve removal of surface layers of dirt and rock using excavators, dozers or other equipment.
- Teams will be excavating sequentially in layers, while continuously installing support systems (shotcrete and rock bolts) to add stability.
- As excavation progresses and the secant pile walls revealed, walers and struts are installed to support and reinforce the shaft secant pile walls.



*Expected staging and layout for south site excavation*

## SITE SET-UP - SOUTH SITE

### Tower Crane

- Crews will deliver a tower crane to the site on the southeast corner.
- This specific crane will facilitate the movement of materials and equipment within our site, ensuring a safer and more efficient construction process, faster execution of the works.
- The positioning of the crane is to allow coverage of the entire station shaft - this will increase on site productivity.
- The tower crane will be operated in accordance with all applicable safety regulations and good practices.
- Delivery of the crane will take place in the early morning as it requires traffic control persons to safely guide the oversize delivery. The crane will be installed in late summer 2024.



*Example of a tower crane used during excavation*

## WHAT TO EXPECT IN THE COMMUNITY

### During excavation work, community members can expect:

- Delivery of equipment, including machines, as part of preparation works.
- Noise from excavators, loading of excavated material, and deliveries of steel beams and shotcrete is expected.
- Equipment used during this operation includes drilling machines, cranes, excavators, concrete pumps, and concrete trucks on-site.
- Several trucks entering and leaving worksites daily, following a specified route.
- Short term lane closures and traffic control persons in place to ensure safety for the community and workers on-site.



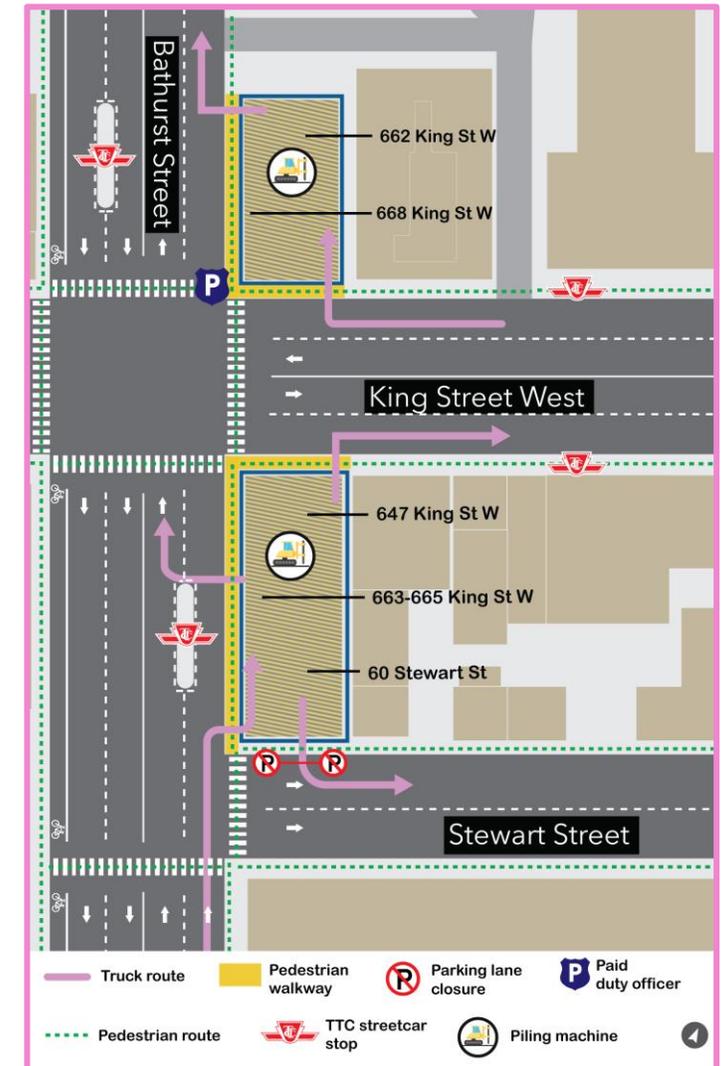
*Example of excavation works in progress*

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# Reducing Impacts to the Community

## ACCESS POINTS

- **At the north site**, trucks will enter from King Street West, moving westbound and right turning into the site.
- Trucks will exit the north site via Bathurst Street northbound, assisted by traffic control persons.
- **At the south site**, trucks will enter via Bathurst Street northbound, and exit either via Stewart Street.
- Pedestrians will be protected in walkways along King Street West and the east side of Bathurst Street north.
- King Street West streetcar stops (508/504) are temporarily moved east of the King Street West and Bathurst Street intersection.
- Excavation equipment will remain within both work sites for the duration of the piling process.



## Construction Site Plans for Traffic and Pedestrians

- **All sidewalks and bike lanes will remain open.** Pedestrians will continue to use sidewalk along the work zone.
- **Parking lane on Stewart Street will continue to be closed** along the south work site.
- **All roads will remain open.** There are no planned road closures in the area. Do expect more traffic on the roads as a result of the increase in trucks coming to and leaving the site.
- **No impacts to public transit.** TTC access at the intersection of King Street West and Bathurst Street will remain uninterrupted by the Ontario Line construction activities.
- A reminder for members of the public to **be mindful** and to follow the direction by flag-persons onsite when crossing the access points safely.



## MINIMIZING IMPACTS TO THE COMMUNITY

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

- Air quality monitoring to track airborne emissions to ensure that construction activities don't impact the quality of the environment.
- Continuous loop truck routes, reducing need for trucks to reverse using back-up alarms.
- Street sweepers and wheel cleaning as needed to ensure soil and sediment is kept off city streets and sidewalks.
- Expanded paving of frequently used areas minimizes the amount of loose soil that can be disturbed by vehicle traffic further reducing dust emissions.



Street sweeper



Noise monitor



Vibration monitor

## MINIMIZING IMPACTS TO THE COMMUNITY

- **Monitoring noise and vibration levels utilizing** sound metres and real-time monitoring systems, to track and control noise and vibration emissions to help minimize disturbances to the community and ensure project regulations compliance.
- **Site hoarding** to help reduce noise.
- **Noise and vibration monitoring devices** placed on-site and in neighbourhood for active tracking of impact to ambient noise levels.
- **Acoustic shelter** to reduce noise impact of construction activities, where site working hours and footprint facilitates use.



*Example of a type of noise monitoring device.*

## KEEPING YOUR COMMUNITY CLEAN

Dust suppression will be **effectively managed** through the use of the following **mitigations** at site:

- **Mud Mats** provide a stable and supportive surface for over soft or unstable ground preventing vehicles and heavy equipment from sinking and reducing the amount of mud created with more frequent passage.
- **Water Suppression** assists by regularly moistening exposed soils and debris preventing dust particles from becoming airborne.
- **Acoustic Shelter** at the north site to contain dirt and debris within the site.



*Example of a mud mat*



*Example of dampening soils to suppress dust*

## HOW TO JOIN SLIDO TO ASK QUESTIONS THROUGH TEXT



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### Two ways to submit your questions:

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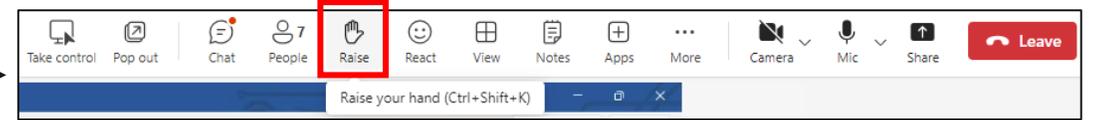
\*Please note that it will take a moment for your question to become live on the system.

# Asking Questions

To ask a question, you can type into Slido (see link provided on slide #6) or raise your hand:

## Desktop / Laptop / Chromebook:

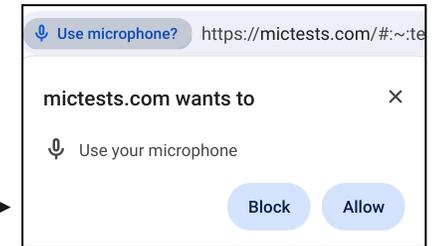
- Raise your hand from the bar at the top of the screen.
- Your question will be placed in the queue.
- When it comes your turn, the meeting organizer will enable your mic.



**\*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.

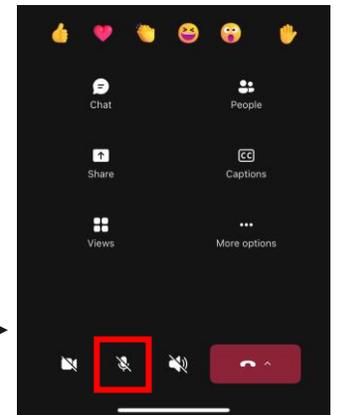


## Phone

- 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.



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

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