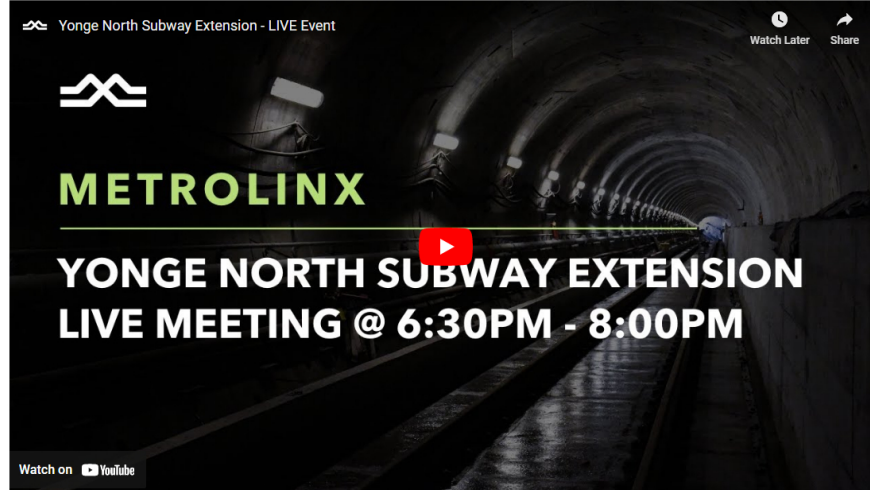


Yonge North Subway Extension LIVE - February 23, 2022

Please join us on February 23, 2022 from 6:30pm to 8:30pm to ask your questions and learn about the [Environmental Project Report \(EPR\) Addendum](#), focused on topics like noise and vibration, air quality, communities (socio-economic and land use), archaeology and heritage properties, soil and groundwater for the tunnelled segment of the route. The EPR Addendum was released on February 10, 2022 and is open for public review and feedback until **March 14, 2022**.

The panel will include experts from our project team. Live captioning will be provided. Our virtual platform will allow you to vote on the questions you'd most like answered, and the order our experts take them in will be based on popularity (total votes). We encourage you to [submit and vote on questions now](#). You may also submit questions during the meeting. We have a call-in option via our Zoom room so participants can also ask their questions live.

If you cannot attend, the video recording will be available on this page after the event, and future events will be announced in our [e-newsletter](#).



Call-In With Your Question

As we continue to evolve the virtual engagement format, we are adding a call-in option for tonight's event. To ask your question by voice, join the [Zoom meeting here](#). We aim to keep each question and subsequent answer to 3 minutes allowing for as many call-in questions as possible.

NOTE: please ensure you have the latest version of Zoom installed.

[Join Zoom](#)

Agenda

- 6:30: Meeting Begins/ Opening Remarks
- 6:35: Environmental Project Report Addendum
- 7:00: Questions and Answers
- 8:30: Wrap up & Closing Remarks

Meet the Speakers



Rajesh Khetarpal
Acting VP for Community Engagement – 905 Region



Stephen Collins
Program Sponsor for YNSE



Mark Ciavarro
Vice President of Subways Project Delivery



Maria Zintchenko
Manager, Environmental Programs and Assessment



Kevin Coulter
Senior Environmental Planner, Technical Advisor

Other Attendees:

- Leona Hollingsworth, Director, Community Engagement – 905
- Nick Faieta, Senior Manager, Community Engagement – York Region
- Azim Ahmed, Manager, Community Engagement Yonge North Subway Extension
- Sam Kulendran, Engineer, Technical Advisor
- Maria Doyle, Manager, Property Acquisitions

Presentation Materials & Resources

- [Yonge North Subway Extension - Presentation PDF →](#)
- [Read the updated environmental assessment →](#)
- [Comment on the updated environmental assessment →](#)

Format & Accessibility

Questions will be answered based on popularity (total votes). We aim to answer all questions.

Please review and note that conduct inconsistent with our [policies](#) will result in removal.

Calendar Invitations

- [Google Calendar →](#)
- [Apple iCal ↓](#)

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Does this project cross the York-Durham Sewage System?

Anonymous
Feb 23, 2022 - 14:28

With the criticized Upper York Sewage Solution on the chopping block, does this project cross the York-Durham Sewage System? If so, would the subway negatively impact the ability to expand the York-Durham Sewage System to provide more servicing capacity in York Region?

 11  2

Answer

Metrolinx
Mar 10, 2022 - 20:28

No, YNSE route it does not cross the York-Durham Sewage System.

 0  0

Why are new georgina homes being cahrged a dc?

Anonymous
Feb 23, 2022 - 18:44

There will be no business case for Georgina residents to take the subway. Why are all new Georgina homes, even those in Pefferlaw going to be responsible for paying a DC?

 10  3

Answer

Metrolinx
Mar 21, 2022 - 10:33

Growth plans within York Region need to be supported by a strong foundation of fast, reliable rapid transit with convenient connections to the regional transportation network that will keep people moving and give them more options to move around – whether those people are new to the community or have lived there for many years.

For example, you'll save as much as 15 minutes on a trip from northern York Region to midtown Toronto by getting on the GO train at Bloomington GO Station and transferring to the subway at Bridge Station, which will be connected to the existing Langstaff GO Station.

Bridge Station will create vital connections between the subway and the Richmond Hill GO line, as well as GO bus, Viva Bus Rapid Transit and local bus services that run along the two major highways.

For more information about development charges in Georgina, please contact the Regional Municipality of York at transportation@york.ca.

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Why not crossing under the Holy Cross Cemetery?

Anonymous
Feb 22, 2022 - 14:22

If merging with the exiting railway corridor is so important what about avoiding the Royal Orchards neighborhood and change the alignment underneath the Holy Cross Cemetery?

 11  5

Answer

Metrolinx
Mar 10, 2022 - 19:10

Thanks, good question! Through our analysis, we found that running the subway tunnels below Holy Cross Cemetery would have made it necessary to relocate hundreds of burial sites since the tunnels would not be deep enough in this area. This could have affected thousands of people and added significantly to project timelines because we would need to identify, locate and get in touch with any next of kin to notify them of our plans before any burials are moved. With those issues in mind, planning and design teams advanced the analysis of the northern section of the route immediately after the Initial Business Case (IBC) was drafted and submitted for endorsement by the Metrolinx Board.

Metrolinx has refined plans for the subway extension from Option 3 that will result in deeper tunnels and a route that travels under far fewer single-family homes in the Royal Orchard community than the previous route. The changes mean the subway tunnels will follow a route that travels mostly under Bay Thom Drive wherever possible once they turn east from Yonge Street to connect with the rail corridor.

It's important to note that we're going to be using noise and vibration solutions for the project that are proven to work. A big benefit is that they'll be based on modern and up-to-date industry standards, which have significantly improved since the first subway lines in the GTA were built many decades ago. The detailed studies we're doing right now will help us make sure we put all the right noise and vibration solutions in place so neighbourhoods along the route stay sought-after places to live in.

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Is it confirmed whether Royale Orchard station is being built?

Anonymous
Feb 22, 2022 - 23:08

I just want to get a confirmation whether this has been officially confirmed to be built or not?

If it is true that Royale Orchard station is being built then what is the status of Cummer station?

If Royale Orchard was chosen over Cummer, what was the rationale for it? Considering by Metrolinx's own documentation the neighbourhood station priority should have been Clark > Cummer > Royale Orchard. Royale Orchard's case now makes less sense with Clark being chosen as the first neighbourhood station to be built. In addition Royale Orchard now will be an even deeper and more expensive station than what that document had cost it to be (which by the way was more expensive than Cummer). Please explain, thank you.

 9  4

Answer

Metrolinx
Mar 10, 2022 - 19:38

Good question, thanks for asking! The provincial government is currently in discussions with York Region, the City of Richmond Hill and the City of Markham concerning including Royal Orchard Station in the project.

We are advancing the planning work for Royal Orchard Station and have labelled it as potential until that work concludes and funding commitments are confirmed.

We look forward to working with the province and York Region to continue this work, which will build stronger connections, attract more new daily riders, and support sustainable and healthy communities.

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What is the tunnel route?

Anonymous
Feb 22, 2022 - 19:51

Need to know where the tunnel line goes

👍 9 🗨️ 5

Answer

Metrolinx
Mar 10, 2022 - 19:11

Thanks! The adjusted route for the subway extension will result in deeper tunnels that follow a route that travels mostly under Bay Thorn Drive wherever possible once they turn east from Yonge Street to connect with the CN rail corridor.

👍 0 🗨️ 0

How can you mitigate the effects of vibration and noise?

Anonymous
Feb 23, 2022 - 10:58

With Metrolinx having no experience with the proposed technology, how can you mitigate based merely on your modelling, which is only a simulation and not real world experience reflective of soil, water and other conditions beneath our homes? Why should we take at face value what you tell us given the lack of transparency exhibited since the announcement about option 3?

👍 6 🗨️ 3

Answer

Metrolinx
Mar 10, 2022 - 19:42

Thanks for that. The findings of the updated environmental studies show that by using the proven solutions available, noise and vibration levels from subway operations will be so faint in the Royal Orchard community that they'll be very difficult to notice. By using modern subway technology available to us, levels of ground-borne vibration are predicted to be below 0.0.10 mm/s (millimetres per second), which is practically imperceptible to human senses. Ground-borne noise levels are predicted to be below 30dBA (weighted decibels are a unit of measurement that best reflects how sound is perceived by the human ear), which is comparable to an average whisper.

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Re: Noise and Vibration

Anonymous
Feb 22, 2022 - 13:37

Why have you not responded to Dr. Gerry Goldberg's information - presented at the York Regional Feb 3/22 Council meeting - about the damage that can be done physically, emotionally and cognitively by even very low levels of noise and vibration. I have also addressed the very significant concerns raised in many studies as well as Dr. Goldberg's in numerous emails. I have not heard you address this VERY IMPORTANT CONCERN, especially as it applies to children. Please comment.
Also, where is all the dirt from tunneling going to be put?

👍 7 🗨️ 5

Answer

Metrolinx
Mar 18, 2022 - 09:22

The applicable environmental assessment (EA) framework for the YNSE is *Ontario Regulation 231/08: Transit Projects and Metrolinx Undertakings*, developed under the *Ontario EA Act*. A health impact assessment is not a requirement under this regulation, and potential impacts related to human health are effectively mitigated through robust and comprehensive air and noise and vibration studies undertaken under the *Ontario EA Act*.

Metrolinx's assessment and management process for noise and vibration for the YNSE follows Ministry of the Environment, Conservation and Parks protocols for transit projects. This process entails:

- predictive modelling of future project noise and vibration levels, and commitments to mitigation to avoid any significant impacts, as part of the EA;
- specifying contractual construction and operations noise and vibration limits to limit both short-term and longer-term exposure while allowing for efficient project delivery;
- completion of site-specific construction noise and vibration management plans once the contractor has selected means and methods;
- installation of construction noise and vibration mitigation (e.g., temporary noise barriers) as required to work within specified limits;
- real-time monitoring of construction noise and vibration levels to allow for adaptive management as required; and
- installation of operational noise and vibration mitigation to meet EA commitments (e.g., resilient fasteners, floating slab track, noise walls).

A similar approach is employed to manage construction air quality impacts.

Metrolinx is committed to comprehensive mitigation for air, noise and vibration, as required, to avoid any significant impacts.


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Ttc Buses

Anonymous
Feb 23, 2022 - 14:25

When the extension is open and running, will route 53 Steeles east and 60 Steeles West continue to Finch station or will it terminate at Steeles Subway Station


👍 3 🗨️ 1

 **ANSWER**
Metrolinx
Mar 10, 2022 - 20:08

Stations along the Yonge North Subway Extension will serve communities in Richmond Hill, Markham, Vaughan and Toronto. The design concept and requirements for transit connections are being refined based on the needs identified by the TTC, York Region Transit, and other local stakeholders. We are seeking input from the TTC and City of Toronto and will share more details about the Steeles Station transit hub when the Preliminary Design Business Case is finalized.

The next stage in planning for the Yonge North Subway Extension includes the release of the Preliminary Design Business Case (PDBC), which will further refine the project's design, route, and benefits.


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 **Lack of Detailed Information in EA Addendum on Soils Groundwater**

Anonymous
Feb 23, 2022 - 15:37

Given the importance of subsurface conditions to the construction feasibility and impact assessment of vibration and noise as well as impacts to the natural environment from potential changes to ground water conditions, why was no site specific information presented in the EA Addendum on soil and groundwater conditions with depth. We know that site specific boreholes were completed but details on where and how completed were not provided. The information provided has no reference nor specificity. No information on groundwater conditions was provided despite clear local evidence of groundwater discharge in Pomona Creek Valley. The natural environment assessment missed that fact completely and no impact assessment on potential loss of ground water was completed. No cross section of soil conditions with tunnel depth was provided as would have been expected in a document this large and issue this significant to the undertaking. How can we have confidence in any of the impact calculations presented in this report.

 6  4


 **Answer**
Metrolinx
Mar 10, 2022 - 20:43

The release of the Environmental Project Report (EPR) addendum represents a major milestone for the Yonge North Subway Extension. The report brings the existing environmental studies for the project up to date with the latest plans for the extension, including the updated route, stations and train storage facility. The report covers off any changes to existing conditions since the previous environmental assessment was completed, studying topics like noise and vibration, air quality, the natural environment, and land use, to name a few.

The report looks at the entire footprint of the Yonge North Subway Extension, from the existing Finch Station to the Richmond Hill Centre area and considers how the project may affect its surroundings, and how to protect and preserve the quality of life in neighbouring communities during and after construction.

Soil and groundwater investigations are most useful for informing detailed design and construction planning; it's not typical of a TPAP to have detailed info about soil and groundwater. That will follow later during detailed design.

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 **Steeles Station**

Anonymous
Feb 23, 2022 - 17:26

Which YRT busses will loop where and how? (on street, underground) (through and terminate at Yonge)
Which TTC busses will loop where and how ? Will there be a crossover or waiting track there?
Where will street (subway to surface) exits be? How will through & dead end bus service be handled?
What are the dimensions of the above ground street shelters?
Will their be a retail vendor connection to complex and to condos?


Where will new surface traffic lights be on Yonge & on Steeles?
What effect will potential Steeles East Rapid Transit line have on intersection & transit?
What buildings on NE corner of Steeles & Yonge be used and replaced with new buildings?
How will existing surface retail in the area be replaced?

How will you get captioning spelling corrected to Proper names ?

Where will underground subway box be located?

PLEASE SEND WRITTEN REPLY to Above Questions this week. (past ones remain without an reply after zoom meeting) Thank you,


 4  2

 **Answer**
Metrolinx
Mar 18, 2022 - 09:17

Stations along the Yonge North Subway Extension will serve communities in Richmond Hill, Markham, Vaughan and Toronto. The design concept and requirements for transit connections are being refined based on the needs identified by the TTC, York Region Transit, and other local stakeholders. We are seeking input from the TTC and City of Toronto and will share more details about the Steeles Station transit hub when the Preliminary Design Business Case is finalized.

The next stage in planning for the Yonge North Subway Extension includes the release of the Preliminary Design Business Case (PDBC), which will further refine the project's design, route, and benefits.

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 **Answer**
Metrolinx
Mar 18, 2022 - 09:18

Stations along the Yonge North Subway Extension will serve communities in Richmond Hill, Markham, Vaughan and Toronto. The design concept and requirements for transit connections are being refined based on the needs identified by the TTC, York Region Transit, and other local stakeholders. We are seeking input from the TTC and City of Toronto and will share more details about the Steeles Station transit hub when the Preliminary Design Business Case is finalized.

The next stage in planning for the Yonge North Subway Extension includes the release of the Preliminary Design Business Case (PDBC), which will further refine the project's design, route, and benefits.

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 **Environment**

Anonymous
Feb 23, 2022 - 19:08

How deep would the base of the subway tunnel be below the base of the Pamona Creek? Is there precedent to a subway going this deep below a creek with no ill effect to the flora and fauna?

3 1

Answer

Metrolinx
Mar 18, 2022 - 09:39

Thanks for your question. Our modelling shows that, from the bottom of the tunnel to the ground surface, the tunnel would be at least 16 metres below Pomona Mills Creek. Due to the depth at which we are tunneling below Pomona Mills Creek, there are no anticipated impacts to the watercourse, vegetation or wildlife in the area.

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97 Yonge bus to Steeles or Richmond hill

Anonymous
Feb 23, 2022 - 14:26

Will the 97 Yonge Street bus terminate at Finch or will it terminate at Richmond hill Station

2 1

Answer

Metrolinx
Mar 18, 2022 - 09:18

The design concept and requirements for the bus terminal are being refined based on the needs identified by the TTC, York Region Transit, and other local stakeholders. We are seeking input from the TTC and City of Toronto and will share more details about the Steeles Station transit hub when the Preliminary Design Business Case is finalized.

0 0

Noise levels

Anonymous
Feb 23, 2022 - 18:46

During the Feb 3 meeting with York Region, Mr Verster indicated that the noise and vibration for houses where the subway runs beneath homes would be imperceptible and no more than a whisper. The vibration level for a whisper is 0.05mm/s. This is the standard the community want. Will Metrolinx commit in writing to this standard and will Metrolinx commit to installing the appropriate monitoring equipment in every house that the tunnel runs beneath before construction begins and maintain the monitoring equipment in place as long as the subway continues to run beneath these homes? And it will of course be an understanding that in the event that this standard of 0.05mm/s is exceeded, compensation will be provided to all homeowners in amounts to be established before construction of the tunnels are completed.

3 2

Answer

Metrolinx
Mar 10, 2022 - 20:27

The report has been written for many audiences, and for the Updated EPR Addendum, we will be looking at ways to present the assessment process and results in a way that makes it easier to read and understand.

The differences in points of assessment are due to how criteria for ground-borne vibration and ground-borne noise are set up. Ground-borne vibration assessed against the MECP criteria requires assessment at an outdoor point at ground level. Ground-borne noise was assessed as per the FTA (Federal Transit Administration) criteria. FTA criteria apply to rooms, and the closest room to the underground alignment is assumed to be in the basement. We assessed both ground-borne noise and vibration along the alignment.

The difference between levels of outdoor vibration and indoor vibration on the basement floors or walls is very minor. Notably, in order to achieve ground-borne noise levels of 30 dBA or lower within an occupied space in a basement, the ground-borne vibration levels as measured on the basement floor or walls would need to be well below 0.10 mm/s and so would be imperceptible. In other words, meeting the 30 dBA ground-borne noise limit ensures ground-borne vibration levels are below the 0.10 mm/s limit. Please see an open letter to the community from Metrolinx CEO Phil Verster, [here](#).

0 0

Cemetery N problems & transit service to 2 Richmond Hill stns

Anonymous
Feb 23, 2022 - 18:50

What is Proximity to CN main line? What is Frequency of freight movement?
Possible Conflict on surface twixt these two lines?

2 1

Answer

Metrolinx
Mar 10, 2022 - 20:29

Thanks for your questions! We'll be adding dedicated subway tracks to the existing railway corridor and looking at ways to keep the footprint of the project as small as possible as we build new infrastructure. We're completing further planning and design work in consultation with our partners at CN Railway to confirm the precise route the subway will take through the rail corridor, as well as the requirements for the two surface-level stations and train storage facility. We will have more details to share when the Preliminary Design Business Case is finalized.

0 0

Believability

Anonymous
Feb 23, 2022 - 19:25

Every residents in Royal Orchard neighbourhood has this question: why should we believe in any assurance you are providing: you have provided no comparables where a subway under an established residential community has been operating for say 20 years; you all will not be there when damage to our health or properties becomes evident; and you would leave us at the mercy of profit motivated contractors or sub contractors with dubious contracts, accountabilities and remedies, which we have no knowledge of.

3 2

Answer

Metrolinx
Mar 14, 2022 - 11:30

The Line 4 Sheppard Subway and Line 2 Bloor-Danforth Subway lines both travel under residential homes in places. The depth of the Sheppard tunnel is approximately 15m-18m from surface to the top of the tunnel. The TTC has told us that after it opened in 2002, the

Sheppard subway generated a total of 8 complaints from local residents in its first 10 years (2002-2012), and only 1 complaint since then. The Sheppard Subway was built using the best noise and vibration mitigation technologies available at the time, and we'll be using the best technology available now for the YNSE.

👍 0 🗨️ 0

Will I be compensated for vibration damage?

Anonymous
Feb 21, 2022 - 22:38

The builders of our homes could not have anticipated that there would be prolonged exposure to the vibrational effects of underground trains. Thus, whatever steps taken to mitigate damage due to vibrations would have been minimal at best. I fear that structural damage to our homes will ensue from a subway under our neighbourhood. What steps will Metrolinx be taking to monitor the structural integrity of homes during and after subway construction? If Metrolinx is planning to do nothing, then how should we monitor structural integrity ourselves and to whom should problems be reported. How will we be compensated for vibrational damage, and how quickly?

Noise and Vibration

👍 10 🗨️ 10

Answer

Metrolinx
Mar 10, 2022 - 20:32

Thanks for sharing this. We know living near transit is a big draw and benefit for homebuyers and that creating new transit connections positively affects neighbouring property values. We also understand that homeowners may wonder if their property values will be negatively affected if the subway runs underneath their property. We strongly believe it will not, given our substantial noise and vibration mitigations.

The findings of the updated environmental studies show that by using the proven solutions available, noise and vibration levels from subway operations will be so faint in the Royal Orchard community that they'll be very difficult to notice. By using modern subway technology available to us, levels of ground-borne vibration are predicted to be below 0.0.10 mm/s (millimetres per second), which is practically imperceptible to human senses. Ground-borne noise levels are predicted to be below 30dBA (weighted decibels are a unit of measurement that best reflects how sound is perceived by the human ear), which is comparable to an average whisper.

Prior to construction, contractors will complete pre-condition surveys to document the conditions of existing structures. Vibration during construction will be tightly controlled and monitored so as not to exceed the standards for damage to structures.

👍 0 🗨️ 0

Property in the study area at Steeles Station demolished?

Anonymous
Feb 23, 2022 - 18:51

Will the property in the study area at Steeles Station be demolished?

👍 2 🗨️ 2

Answer

Metrolinx
Mar 10, 2022 - 20:35

Great questions! Metrolinx will need to acquire property to build the tunnels and support future subway service. Some property may also be needed at the surface to accommodate emergency exit buildings and ventilation shafts along the route.

Sometimes an entire property is needed, and sometimes just part of it is needed; some property needs are temporary to support construction, and others are permanent to support new infrastructure. In any case, we will compensate owners with fair market value for any property that is needed.

It's important to note that Metrolinx compensates property owners for the right to occupy the space under their property. That property has value and owners will be compensated for that value, even when the infrastructure we are building is deep underground and no space is occupied at surface level.

When we confirm our property needs for the project, we will reach out to affected property owners through a letter that clearly indicates what is needed and whether the impact is permanent or temporary. This notification letter will include a dedicated program staff member and contact details to ensure any questions are addressed and lines of communication remain open.

👍 0 🗨️ 0

Where are you locating the community office?

Anonymous
Feb 23, 2022 - 20:10

Will a home in the community be expropriated for this?

👍 2 🗨️ 2

Answer

Metrolinx
Mar 10, 2022 - 20:36

No, a home will not be expropriated for the purpose of community office. Once a location is confirmed, then the address will be released to the community.

👍 0 🗨️ 0

This question relates to EEBs and street ventilation grids

Anonymous
Feb 23, 2022 - 20:39

Where will the emergency exit buildings (EEB-6 and EEB-7) and ventilation grids be located in the residential Royal Orchard residential neighbourhood? What spacing is required between ventilation grids (spacing on EEBs is provided in the EA). There is very little open space for the exit buildings and expropriation of any homes for these EEBs should never be considered. There are implications for air quality with the grids but the air quality report does not provide any information on this. Will it be added into the EA?

👍 1 🗨️ 1

Answer

Metrolinx
Mar 10, 2022 - 20:38

Our design team is working to determine the exact location of the emergency exit buildings needed along the entire route of the subway extension, with a specific focus to reduce the number needed in residential areas.

Emergency exit buildings are single storey structures that are smaller than a house and can be designed in a variety of ways to fit the look and feel of the area around them.

Emergency exit buildings will be needed at various points along the tunnelled section of the route and are only used in the unlikely event of an emergency in the tunnel that would require people to safely get to the surface.

Based on our current analysis, there are no vents or grates required in the project area east of Yonge, through Royal Orchard, to the tunnel portal just south of Langstaff. Further investigations will confirm the ventilation infrastructure required for the full route and we will continue to keep the community updated as we move through the next phases of design.

👍 0 🗨️ 0

What is the total width of underground tunnelled structure?

Anonymous
Feb 23, 2022 - 20:45

This includes the space between each of the outer concrete walls of the underground tunnelled structure (i.e. the ENTIRE width underground that will be excavated). Please provide the specific details of all of the measurements that are incorporated into this measurement (e.g. total width of each tunnel, space between the 2 outer walls of the tunnels, and the space on either side of each of the outer tunnel walls to the outer walls of the entire underground structure).

👍 2 🗨️ 2

Answer

Metrolinx
Mar 15, 2022 - 11:23

Thanks for your question. The width of the tunnel will vary along the alignment. In the Royal Orchard community, the alignment is being designed to the minimum allowable width in accordance to industry and best practice standards. We'll have more to share with the community once the Preliminary Design Business Case is finalized.

👍 0 🗨️ 0

Will the tunnelling go under the Gazebo condo building

Anonymous
Feb 23, 2022 - 14:41

or only across the N.W. corner of the property. Will, there be an emergency exit there on that corner? Have there been any studies on the effect that hundreds of trains daily being so close to the foundation of a 50-year-old building? What compensation will there be if our foundation, in the future, starts to collapse due to vibration?

👍 2 🗨️ 3

Answer

Metrolinx
Mar 10, 2022 - 20:33

The adjusted route will travel below 8111 Yonge and the depths of the tunnels beneath the building will be very deep, approximately 50 metres below surface level. The tunnel boring machine used in construction is able to adjust to different types of soil and rock, including bedrock, to safely and effectively tunnel below properties with little or no settlement at the surface. The tunnels will be surrounded by thick reinforced concrete and will be built to strict design and engineering standards. These high-quality, modern tunnels built to the latest industry standards will ensure future subway services won't be a disruption for the community.

Our approach to compensation for subsurface rights under a property is treated the same way as if we were taking a portion of a front or back lawn. That property has value and will be compensated for that value. Our property team will work closely with residents on developing a valuation, at our cost, and compensating residents accordingly. Our preferred approach is through amicable negotiations and settlement and we would only start an expropriation process, if it is necessary, to protect project timelines.

Noise and vibration levels in the Royal Orchard community were already expected to be extremely low with no significant differences from today's levels, and these adjustments will make them even lower. Ongoing ground studies and environmental assessments in the Royal Orchard community will inform project designs and help deliver the best solutions for local neighbourhoods. Our early studies show that by using available, proven technology, vibration levels will be so faint that it will be barely noticeable to human senses. We estimate sound levels will be about as quiet as the average whisper.

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