

## **Royal Orchard Community Walk Q&As**

### **Saturday July 9, 2022**

#### **Route**

**Q1. Why did the route change from the original plans? What happened to options 1 and 2? What's the point of moving the alignment off of Yonge?**

In 2019, when Metrolinx assumed responsibility for the Yonge North Subway Extension, it became evident that the original project was approximately \$3.7 billion over the \$5.6 billion budget, that it did not fully maximize transit benefits for communities, and that it did not fit with the future long-term growth objectives of the region.

Metrolinx refined the project plans to deliver more transit benefits for the people of York Region and Toronto, while staying within budget. This change to the project is what is outlined in the Initial Business Case (IBC) and addendum that were published in March 2021. One of the most significant refinements is the updated route, which places the northern section of the extension at surface level along the existing CN railway corridor, instead of tunneling all the way to Richmond Hill. The updated route curves away from Yonge Street and runs underground to the proposed subway tunnel portal south of Langstaff Road.

This approach will maximize the subway connectivity to other modes of transit such as buses and GO transit, while also optimizing the urban and city building developments at and around Richmond Hill. In addition to the various route options we looked at in our initial business case analysis, we completed a detailed review of a proposal from the community for an alternative route that would stay along Yonge Street before curving to travel along the northern boundary of Holy Cross Cemetery on its way to the existing railway corridor.

The new route alignment ensures the better placement of stations to minimize the disruption to Richmond Hill Centre, while also maximizing the developments and growth within that community. The Yonge North Subway Extension has two stations at the heart of Langstaff Gateway and Richmond Hill Centre, an area that is set to become a vibrant regional hub where people will live and work. The new route will create a multi-modal transit hub at Bridge Station, which connects the subway to GO train, GO bus, York Region Viva bus rapid transit and the local bus network.

Bridge Station will be accessible from Highway 7 and will remove approximately 130 buses on the roadways per peak hour from travelling into Richmond Hill Centre. Our plan will bring the many people who will live near

Bridge and High Tech stations within a 10-minute walk of rapid transit. Building the subway at surface level along the existing CN railway corridor reduces the need for complex and costly construction of tunnels and underground stations. We will also be able to complete the project sooner than if the subway was tunneled the entire length of the route. It also protects for a future potential northern extension of the subway by better utilizing the existing railway transportation corridor.

**Q2. How are exact route and station location decisions being made? Are you taking direction from developers?**

Any decisions we make on the route of the subway extension and the location of stations are in the interest of improving the customer experience, increasing access to transit, maximizing ridership, achieving travel time savings, and creating better access to jobs. These criteria are balanced by cost and other community considerations.

Route and station locations are subject to change as we advance planning and design work. Any discussions we may have with developers and landholders throughout the course of a project would be to explore innovative partnership opportunities that would benefit customers and communities. There are existing development plans for some of the lands along the proposed route, and upfront work must be done to understand how those plans might impact the project – and vice versa.

**Q3. How will you get the tracks back on Yonge if the third track goes through for CN? If CN says no, will the subway be redirected to Yonge Street?**

We are in discussions with CN about our plans for the Yonge North Subway Extension as planning and design for the project continues. Metrolinx has a longstanding relationship with CN - we share rail corridor throughout our existing GO network and have done so for years. We're confident we will be able to effectively work together to move this important project forward.

**Planning and Design**

**Q4. What's the maximum slope of a tunnel?**

To make sure the Yonge North Subway Extension is safe and comfortable to ride, the maximum slope of the tunnels is 3.5%.

**Q5. How deep will the subway be?**

In the Royal Orchard community, the bottom of the tunnels - where trains pass over the tracks - will be at least 21 metres below the surface. This minimum 21 m depth is maintained from Yonge Street to approximately where the existing railway corridor meets the southern boundary of Holy Cross Cemetery.

Where the route crosses below Pomona Creek, beyond where homes are located, the tunnels will still be at a depth of at least 14 metres. This slightly shallower depth is because the ground level here is slightly lower than the surrounding land in the neighbourhood. From here, it will gradually rise to meet the surface rail corridor just south of Langstaff Road.

Based on what's been experienced on other recent subway projects in the GTA, we know the sounds and vibrations from subway trains traveling in the tunnels below Royal Orchard will be extremely hard to notice.

**Q6. What is the depth of the tunnel underneath Royal Orchard Park? How deep is tunnel under Pomona Creek?**

The tunnel will be at least 14 metres below Pomona Creek. Due to the depth at which we are tunneling below the creek, there are no anticipated impacts to the watercourse, vegetation or wildlife in the area.

**Q7. How does the depth of the tunnel respond to changes in elevation at surface level on Yonge Street?**

The bottom of the tunnels - where trains pass over the tracks - will be at least 21 metres below the surface. This minimum 21 m depth is maintained from Yonge Street to approximately where the existing railway corridor meets the southern boundary of Holy Cross Cemetery.

The tunnels will reach their greatest depth just north of the Don River, where they will be more than 50 metres below the surface.

Where the route crosses below Pomona Creek, beyond where homes are located, the tunnels will be at a depth of at least 14 metres.

This slightly shallower depth is because the ground level at the creek bed is lower than the surrounding land in the neighbourhood. From here, the tunnels will gradually rise to meet the surface rail corridor just south of Langstaff Road.

**Q8. Where in the community will the tunnel curve?**

The tunnels will curve to the right off Yonge Street and cross below part of Normark Drive to Bay Thorn Drive. The tunnels will curve below Thorny Brae Drive, Banquo Road and Kirk Drive, to align with the existing railway corridor.

You can find a detailed map showing the route of the subway tunnels in the Environmental Project Report Addendum for the Yonge North Subway Extension.

*Link:* [https://www.metrolinxengage.com/sites/default/files/appendix\\_a\\_-\\_ynse\\_concept\\_design\\_mapping\\_psw.pdf](https://www.metrolinxengage.com/sites/default/files/appendix_a_-_ynse_concept_design_mapping_psw.pdf)

**Q9. What is the distance between the two tunnels?**

The distance between the two tunnels is approximately 6 metres.

**Q10. Where does the 30 metres in depth begin?**

The tunnels will be at least 30 metres below the surface from just west of Pomona Creek and will reach more than 50 metres underground as they approach Royal Orchard Station.

**Q11. Will the tunnel under Bay Thorn Drive go under the municipal part of our properties, or the part that we own too?**

We have started to reach out to some owners on Bay Thorn Drive whose property is located directly above the planned subway tunnels to let them know that Metrolinx likely will need to acquire property under their home.

You can find detailed maps of the route the tunnels will take in the updated Environmental Project Report addendum for the Yonge North Subway Extension.

Link: [https://www.metrolinxengage.com/sites/default/files/appendix\\_a\\_-\\_ynse\\_concept\\_design\\_mapping\\_psw.pdf](https://www.metrolinxengage.com/sites/default/files/appendix_a_-_ynse_concept_design_mapping_psw.pdf)

**Q12. How can the subway be about 40 m under gazebo, maintain a 3% max gradient all along, but stay 15-20m below?**

The subway tunnels will travel north from Royal Orchard Station at a depth of roughly 55 metres, rising to reach a depth of at least 40 metres below 8111 Yonge Street. Where the route crosses below Pomona Creek, beyond where homes are located, the tunnels will be at a depth of at least 14 metres. This slightly shallower depth is because the ground level here is slightly lower than the surrounding land in the neighbourhood. From here, it will gradually rise to meet the surface rail corridor just south of Langstaff Road. You can find detailed information about planned tunnel depths on page 22 of the updated Environmental Project Report Addendum for the Yonge North Subway Extension.

Link: [https://www.metrolinxengage.com/sites/default/files/ynse\\_updated\\_epr\\_addendum\\_rev1\\_deliverable\\_13-may-22.pdf](https://www.metrolinxengage.com/sites/default/files/ynse_updated_epr_addendum_rev1_deliverable_13-may-22.pdf)

**Q13. Where under the gazebo will the tunnel run?**

The tunnels will travel under the northwest corner of the Gazebo building.

**Q14. Can the gazebo be used as an entrance to the subway?**

To bring service closer to more people in the Royal Orchard community while making sure the ride for passengers is smooth and reliable, the platform for

Royal Orchard Station must be placed on a straight stretch of the route just south of Royal Orchard Boulevard. The building at 8111 Yonge Street is too far away from the planned platforms to offer convenient access to the subway.

**Q15. Where will the emergency exit building be and what will it look like?**

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.

**Q16. Will there be a bridge for the trains?**

The subway will have its own dedicated tracks that will be separate from other rail operations to keep all services using the railway corridor running smoothly.

**Q17. Where will people park for the subway station?**

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. Parking will be evaluated in more depth through the release of the PDBC. The Yonge North Subway Extension has been designed to support vibrant urban development along the route that creates faster, easier connections to rapid transit so that people can get out from behind the wheel. Those connections include local transit routes, TTC bus service, York Region local and Viva express bus service, Richmond Hill GO service, Highway 407 GO bus service, access with PRESTO (which automatically applies transfers and gives the user the lowest cost of a ride), as well as active transportation like walking and cycling.

**Q18. Has the EA been signed off by the Minister? Does that start clock for procurement?**

Yes, the updated Environmental Project Report Addendum was approved by the Minister of Environment, Conservation and Parks in April 2022. Procurement for the project is moving forward.

**Q19. Why is a subway necessary for a community this small? What are the future redevelopment plans to urbanize the area that justifies the development of this subway?**

The Yonge North Subway Extension is a long-awaited project that will bring faster transit to more people across York Region and Toronto. It is a vital piece of the transit network that we are building across the region and will connect communities and people for decades to come. The extension will help you spend less time traveling so that you can dedicate more time to the people and things you care about most. For example, the extension will reduce the time it takes to travel from the Yonge Street and Langstaff Road area to downtown Toronto by as much as 22 minutes – going from 70 minutes today to 48 minutes with the extension.

Our plans focus on both future development and on the people who live in these communities today. York Region has been planning for this growth for many years in response to the demand for more housing and employment opportunities in these communities. We are supporting those plans. The Yonge North Subway Extension will enable 26,000 more residents and 22,900 more jobs to be within a 10-minute walk of a new station within the next two decades.

The recently confirmed Royal Orchard Station will put the subway within walking distance for 7,300 people and 1,300 jobs. This ensures that any growth is sustainable, because reliable rapid transit with convenient connections to the regional transportation network is the foundation for growth. It gives new and current residents the means to move and give them more options to move around with more choices and more opportunities.

**Transit Corridor Lands**

**Q20. What are transit corridor lands?**

Transit corridor lands are lands that may be needed for the planning, design and construction of priority transit projects. Designating these lands will help Metrolinx build transit faster, resulting in fewer inconveniences for neighbouring communities. Transit corridor lands are being identified for all priority transit projects, including the Ontario Line, the Scarborough Subway Extension, the Eglinton Crosstown West Extension and the Yonge North Subway Extension.

Project planners and engineers set the boundaries for transit corridor lands by first looking at the existing conditions and infrastructure along the proposed route of the project, like sewer mains, roadways and bridges. Then, they examine what kind of work would need to be done during planning and

construction, how it might affect existing infrastructure, and how much room might be needed for the work.

Once the boundaries are set, an additional 30-metre buffer area is added surrounding the transit corridor lands to allow for any other needs that could come up during further design and construction work. The same changes apply to these areas as well.

**Q21. What is the designated area for the transit corridor? Is the transit corridor in perpetuity or just for construction?**

Metrolinx is declaring the transit corridor lands for the Yonge North Subway Extension in phases. The first phase was completed in mid-2022, as we needed to accelerate access to several properties to carry out important planning work that will allow us to keep the project running on schedule. The important surveys needed at those properties will help us map out the underground and surface-level terrain and better understand things like ground composition and where utility lines are located.

We are working toward sharing the full transit corridor lands for the project in 2022 and we will share those details as soon as that work is completed.

The transit corridor designations are not in perpetuity, they are only instated for the duration of construction.

**Q22. What is the difference between houses above the corridor and houses above the tunnels?**

Transit corridor lands are lands that may be needed for the planning, design or construction of priority transit projects like the Yonge North Subway Extension. Certain conditions apply to these areas, including the need to obtain a permit from Metrolinx for certain types of work, such as building an extension or digging a pool, and allowing Metrolinx to visit a property with advance notice to conduct inspections, tests or surveys. Having property on transit corridor land does not guarantee it will be needed to support construction.

Metrolinx will compensate owners of property directly above the tunnels for the right to occupy the subsurface space under their property. That compensation is determined to the pricing and valuation methods prescribed by the Expropriations Act (1990). 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. It is important to note that property directly above the tunnels will also be designated as transit corridor lands.

If Metrolinx confirms that your property is needed temporarily or permanently to support the construction and operation of the subway extension, you will receive written notification from us informing you that this is the case. If you live near the project and you haven't been contacted by Metrolinx yet, it could be for one of two reasons: either no impacts to your property are anticipated, or our planning and design teams may not be at the stage where they are able to confirm if your property is needed, though it may be confirmed through further design work.

**Q23. When will Metrolinx let the Community know who is on the transit lands?**

Metrolinx is declaring the transit corridor lands for the Yonge North Subway Extension in phases. The first phase was completed in mid-2022, as we needed to accelerate access to several properties to carry out important planning work that will allow us to keep the project running on schedule. The important surveys needed at those properties will help us map out the underground and surface-level terrain and better understand things like ground composition and where utility lines are located. Many who own or occupy property on transit corridor lands will experience little to no impacts. For others, it may mean a small change to existing processes. If your property is needed in any way, you will hear from us well in advance.

We are working toward sharing the full transit corridor lands for the project in 2022 and we will share those details as soon as that work is completed.

**Q24. What about the part of one's property that is not on the transit corridor lands? Can outside structures be built there without Metrolinx's permission?**

The permitting and property access conditions of transit corridor lands apply to the entire property. Permits are needed for work that would add, change or extend a structure on the property, such as a shed or an extension on a home. Permits help us understand what work might be happening along the line and avoid conflicts that might delay transit construction or your own plans. We want to work with you to coordinate construction activities and timing - not prevent you from making improvements. We don't expect plans will be impacted in the large majority of cases. If some changes to your plans are required, we'll work with you on a solution.

**Construction****Q25. How will my home be impacted during construction? How can you be sure my house won't collapse during tunneling?**

Tunnel boring has been proven around the world to be efficient, safe and reliable in built-up areas. We'll be using tunneling methods that will avoid any movement of the ground that could compromise the structure of buildings above. The tunnel boring machines we'll use can adapt to all kinds of underground conditions using a method called earth pressure balance that helps the machines make those transitions smoothly. The pressure applied by boring machines can be controlled to match the pressure of the earth and water being excavated, which keeps the ground stable as the machines work deep below. As the machines move forward, reinforced concrete liner panels are installed to form the tunnel walls and each segment is fastened into place. Cement grout is then injected behind them to form sturdy rings.

Safety is part of everything we do at Metrolinx, which is why we take an extra cautious approach to tunneling. During tunneling work, we'll continuously monitor for any slight movement of the ground above the tunnel boring machines, making any adjustments necessary to reduce or eliminate effects on homes and buildings.

**Q26. Will drilling happen at the following borehole markings on Banquo: GS 28A, GS 288, Y85GS29, GS29A? If so, when?**

Those markings are for three additional boreholes (28A, 28B, 29A) that are needed to get more information about the underground soil conditions below the community.

The information we learn from the ground samples we take from the boreholes will allow us to better set up the tunnel boring machines so that they can tunnel more efficiently through the soil. We have applied to the City of Markham for the needed permits and will provide the community with plenty of notice before any work begins.

**Q27. Was there anything in Geotech results that you didn't account for that would prevent you from making good on your commitments to us?**

No. The findings of the latest geotechnical 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 practically imperceptible to human senses. Ground-borne noise levels are predicted to be comparable to an average whisper.

**Q28. When they were building Sheppard subway, I could hear it. They had to put wood on the road. Will that happen here?**

Timber decking is typically used to cover open cut excavations where vehicles and pedestrians may travel. Any noise caused by traffic passing over the decking can be reduced through careful design and maintenance. We're still confirming our plans and designs for construction of the stations along the subway extension, and we'll share that information with the community when it is finalized. However, at this point in time, we do not anticipate the need for timber decking to be installed in the Royal Orchard community.

**Q29. When will construction begin on Norwood? What's the timeline?**

The planned date to begin the main construction on the project is 2023.

**Tunneling****Q30. What are the hours of operation for tunneling?**

We expect the tunnel boring machines will be operating daily on a 24-hour basis.

**Q31. Is there bedrock under Banquo? What will the tunnelling process be?**

There is bedrock under Banquo Road, but the subway tunnels do not pass through the bedrock where they will cross below the street. Instead, the tunnels will be mined through soil at Banquo Road.

Tunnel boring relies on tunnel boring machines - or TBMs, for short - which tunnel under existing structures and roadways. These machines can be as long as a football field and have a rotating cutter head at the front end that carefully digs through the earth. Modern tunnel boring machines adapt to all kinds of underground conditions, like densely packed soil, rock or areas with high water pressure. Earth pressure balance technology built into the tunnel boring machine helps it make those transitions smoothly. The pressure applied by the TBM can be controlled to match the combined pressure of the earth and water being excavated. This helps keep the ground stable as the machines work deep below the homes, buildings and roads at the surface.

Excavated soils and rock are removed by a system of conveyors from inside the tunnel boring machine and transported back to the surface to be hauled away and properly disposed. As the tunnel is being dug out, the tunnel boring machine uses a built-in mechanical device called a segment erector to install pre-cast reinforced concrete liner panels (called segments) to form the tunnel walls. Each segment is fastened into place, and cement grout is injected behind them to form sturdy rings. The machine moves itself forward with hydraulic jacks to push off the newly installed segment ring.

**Q32. What's tunneling going to feel like for us on Thorny Brae/Banquo and for how long?**

There are two types of vibration that come from tunneling. One is from the tunnel boring machine passing, which creates a humming sound, and the other source of vibration is from service trains that take concrete tunnel segments and equipment back and forth from the launch shaft to cutter head. The vibration from digging the tunnel fades away completely within a short period of time - typically, two to three days - because the tunnel boring machine moves further away as it makes progress. The source of vibration that sometimes lasts longer is from the back and forth of service vehicles along the temporary rails in the new tunnel.

The company we choose to build the tunnel must agree to keep noise and vibration from tunneling below a certain level. Based on our studies, we've determined that one way they can do that is to use rubber wheels on the service vehicles. We will work with our contractors to address issues with any noise and vibration during construction of the subway extension.

Metrolinx will continuously monitor noise levels during construction and ensure noisy activities occur during daytime whenever possible, and plan truck routes that will minimize on-site movement and avoid travel on residential streets. Communities will be notified well in advance of any upcoming construction work, with particular attention on activities that might need to happen outside of regular hours.

**Property Impacts****Q33. Are there payments available for people affected by construction? Who is getting compensated?**

Metrolinx will help residents and businesses through construction by offering noise and traffic mitigation and local business supports like promotional signage, wayfinding, and construction hoarding. We are also opening a community office not far from the Royal Orchard community, with community engagement staff available during business hours to answer questions and provide updates. During construction, we'll also have a 24-hour hotline that will give the community direct access to someone who will listen to their concerns and help address any issues.

This will be an ongoing process, and we are committed to keeping an open, two-way dialogue going so we can continuously strengthen and improve our supports.

**Q34. Is the easement registered on title? Does that go away?**

Temporary easements, typically needed for a period of time during construction, will be registered on the property title but will be removed once the new subway has been completed and is in service.

Permanent easements, which are required in perpetuity, will also be registered on the property title and will not be removed once the subway is in service. Permanent easements are typically required at locations where we have a permanent need to access the land but do not have a need to own the land.

**Q35. Does Metrolinx paying for my appraisal apply to properties at which you're not acquiring an easement?**

Metrolinx only pays for appraisals for properties it requires for construction and operation of the subway extension.

**Q36. What happens if I want to make changes to my home, like moving it back a few meters? When does it come off title?**

The transit corridor land designation is for the planning, design and construction phases of the project. Once construction is complete and the Yonge North Subway Extension opens, the designation will be revoked, and the notice removed from the property title.

We will coordinate plans with property owners, and that will help make sure there are no conflicts between any improvements owners make to their property and the work happening on the subway extension. It isn't out of the ordinary for people who live near transit projects to have to apply for a permit and in fact is in the best interests of both parties. The boundaries of transit corridor lands along the Yonge North Subway Extension corridor are still being determined. We will reach out to owners and tenants directly as soon as details are confirmed.

**Q37. Will we be compensated if you exceed the levels of noise and vibration promised?**

We're confident that high-quality, modern tunnels built to the latest industry standards will ensure future subway services won't be a disruption for the community. Studies show vibration levels inside single-family homes in the Royal Orchard community will be practically imperceptible to human senses. Ground-borne noise levels from the subway are expected to be below 30 dBA (weighted decibels best reflect how sound is perceived by the human ear), or about as quiet as an average whisper. This is below the guidelines for ground-borne noise Metrolinx follows that dictate a limit of 35 dBA for residences and buildings where people normally sleep, which is about as quiet as background noise in a library.

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.

**Q38. When will you start negotiating property purchasing for the alignment?**

We've already reached out to some property owners in the Royal Orchard neighbourhood to let them know their property might be needed for the project.

**Q39. What are the constraints when purchasing soil?**

Acquisition of land below ground level or under a building that is needed for the project is acquired in a similar way to any other property interest. The portion of land required is defined in a registered plan that identifies not only the surface area, but also the depth of the land needed.

We take the time to do detailed studies on what's needed so we can limit our construction footprint and be certain that we're only acquiring properties that are absolutely necessary to get transit built. Oftentimes, only a small portion of a property is needed, and many properties are only needed on a temporary basis during construction.

We reach out to owners individually once property needs are confirmed so that we can have one-on-one conversations about supports that are tailored to their unique needs.

**Q40. Under what authority is Metrolinx expropriating the land under residents' homes?**

Metrolinx seeks to acquire lands through amicable agreement when possible. Should an agreement not be achievable within the timelines required, Metrolinx may initiate expropriation in parallel with amicable discussions in the hope of reaching agreement.

Expropriation is a process that enables a government agency like Metrolinx to acquire property without a direct agreement with the owner for the purpose of building public infrastructure, while still ensuring that owners are compensated at fair market value in keeping with the Expropriations Act.

Expropriation is only initiated if it becomes clear that an agreement might not be reached within the required timelines for the specific transit project. The preferred approach is always to negotiate directly with owners to reach amicable, mutually beneficial agreements.

**Q41. Why is there a need to insert Metrolinx’s name against the title of a home, and why does Metrolinx need to stay on the title for the whole length of construction? Could the insertion of Metrolinx on the title of a home be noted as temporary?**

It is important to note that Metrolinx is not added to the title of properties on transit corridor lands. A notice of this designation appears on the title of the property, which will be shown in the land registry. This notice will be removed once construction of the project is complete.

The conditions that apply to property on transit corridor lands and the 30-metre buffer area allow Metrolinx to work directly with property owners and utility companies to coordinate access and work, and to review plans. This means Metrolinx has the information it needs sooner, ensuring everyone is aware of potential impacts – and how to avoid them – as early as possible. The transit corridor land designation is for the planning design and construction phases of a project. Once construction is complete and the line opens, the designation will be removed from the property title.

Simply having property on transit corridor land doesn’t mean your property will lose value. In fact, we’ve seen that property that is close to transit increases in value. The notice on title is similar to other information notices that commonly appear on property titles, like for properties within an airport zone.

We understand that construction isn’t a selling feature, but the goal of transit corridor lands is to help construction move quickly. The designation doesn’t prevent you from selling or leasing your property.

**Q42. Will Metrolinx provide compensation if and when a landowner receives an offer to purchase at an amount below the land’s and home’s value?**

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 strongly believe that property values will not be negatively affected by bringing new transit service to the community given our commitment to use proven solutions for noise and vibration during construction and operation of the extension. In all cases, owners are compensated for their property at a price they could expect through a sale at fair market value. Fair market value represents the value of the property based on the market conditions at that time. A third-party appraisal will be completed to estimate the fair market value. You may also complete your own appraisal to determine or confirm the fair market value. In some cases, other kinds of third-party experts may be asked to help determine fair market value for a property, such as environmental consultants.

Metrolinx will enter direct, one-on-one discussions with each homeowner that will have the subway run under their property. Through those discussions, Metrolinx will work with owners to procure an independent valuation, at our cost, of the property interest and make an offer accordingly. Should an amicable deal not be reached, owners have a right to appeal under the Expropriations Act (1990) to the Ontario Land Tribunal for a judgment as to fair compensation.

**Q43. What is the process of requiring and securing a permit from Metrolinx? What about residents who have already planned for improvements, but the work hasn't started yet?**

If you are planning to build, change or place a building, other structure or road on or under your property, a permit from Metrolinx may be required in addition to any necessary municipal permits. The same applies to excavation and water drainage work. This new permitting requirement will help avoid conflicts with nearby transit construction and reduce the likelihood that you might have to stop or redo your work in the future. If you are currently undergoing or planning any of these activities, please contact Metrolinx at [development.coordinator@metrolinx.com](mailto:development.coordinator@metrolinx.com) or visit [Metrolinx.com/permits](http://Metrolinx.com/permits). For more information on what kind of work may need a permit, visit [Metrolinx.com/permits](http://Metrolinx.com/permits).

**Q45. If the City already knows through a permit application that you plan to build a deck, why can't they flag our account and send notice to Metrolinx?**

Metrolinx will work through its established channels to reach out to residents. We are working with our municipal partners and will take back your suggestion to improve this process.

**Q46. What is the process for a homeowner undertaking an independent property assessment to be reimbursed by Metrolinx after the Metrolinx property assessment?**

Landowners are welcome to obtain an independent appraisal on their property should they wish. They should wait until they have been approached by Metrolinx to determine if they wish to procure these services and to ensure that any work they procure is recent and up to date. Only after negotiations have concluded will the landowner need to submit the completed appraisal report along with an itemized statement of account should they wish to be reimbursed for the services.

**Q47. What if a homeowner has a home that is not in the transit corridor land but has a municipal right of way in front of their property that is in the transit corridor land?**

The conditions that apply to transit corridor lands would only apply to property within the designated area.

If your property is located on transit corridor land or within the 30-metre buffer area, you will be notified by letter.

### **Community Impacts**

#### **Q48. What steps are you taking to mitigate noise and vibration when the train passes by my apartment?**

Noise and vibration are created where the subway train wheels pass over the tracks, and we are investing in modern technology that reduces noise and vibration created at the source.

For example, one of the solutions available to us is called ‘floating slab’ track. This track design has been proven to work on many subway lines around the world, including the recent western extension of Line 1 to Vaughan. It involves attaching the tracks to concrete slabs that ‘float’ above the subway tunnels on thick rubber pads that absorb vibration from passing trains.

Near the train storage facility - where subway trains will be inspected, stored and cleaned while not in service - we will use noise barriers to block sounds coming from the facility.

These are just two solutions in a wide array of proven technology available for the project, including resilient fasteners, ballast mats and devices called moveable point frogs that reduce the gap between rails that cross one another to help reduce noise and vibration from passing subway trains.

We will have more detailed information about the solutions we’ll be putting in place as further design work is refined.

#### **Q49. Will there be a sound barrier fence to help with the sound during the redevelopment of the site?**

We are collecting new data on the surface level section of the route to further refine our studies on future levels of noise and vibration in the existing railway corridor and we are looking at ways to reduce noises and vibration from subway operations. The latest environmental report for the project shows there will not be a significant increase from today’s noise levels due to operation of the subway extension between the tunnel portal and the area of High Tech Station. Our studies show that the electric subway trains that will run along the extension are much quieter than the heavy diesel trains that regularly travel the railway corridor.

To keep noise levels in the area around the train storage facility near today's levels, we're looking at solutions that could include installing a noise barrier along the western edge of the facility and using moveable tracks that reduce the gap between rails that cross one another, reducing noises and vibration from subway trains that pass over them. Our goal is to make sure there are no significant differences between what's experienced in the community today and what will be experienced when the extension is up and running.

**Q50. Does twice the number of tunnels also mean twice the level of noise?**

We're confident that high-quality, modern tunnels built to the latest industry standards will ensure future subway services won't be a disruption for the community. Studies show vibration levels inside single-family homes in the Royal Orchard community will be practically imperceptible to human senses. Ground-borne noise levels from the subway are expected to be below 30 dBA (weighted decibels best reflect how sound is perceived by the human ear), or about as quiet as an average whisper.

**Q51. How will the gazebo be affected by the subway? What if the Gazebo falls down because of your tunneling?**

The proven tunnelling methods we'll be using will avoid any movement of the ground that could compromise the building's structure. Based on our early studies, any movement of the ground due to tunnelling in the area of 8111 Yonge Street is predicted to be less than 2 millimetres.

It's important to note that tunnel boring has been proven around the world to be efficient, safe and reliable in built-up areas. The tunnel boring machines we'll use can adapt to all kinds of underground conditions using a method called earth pressure balance that helps the machines make those transitions smoothly. The pressure applied by boring machines can be controlled to match the pressure of the earth and water being excavated, which keeps the ground stable as the machines work deep below. As the machines move forward, reinforced concrete liner panels are installed to form the tunnel walls and each segment is fastened into place. Cement grout is then injected behind them to form sturdy rings.

Safety is part of everything we do at Metrolinx, which is why we take an extra cautious approach to tunneling. During tunneling work, we'll continuously monitor for any slight movement of the ground above the tunnel boring machines, making any adjustments necessary to reduce or eliminate effects on homes and buildings.

**Q52. Will trees and flower beds be impacted by construction?**

In a built-up and growing region, some trees need to be removed to make room for new transit lines. To offset these removals, Metrolinx follows a

detailed, science-based plan for planting new trees and keeping the region green. Overall, our practice is to plant more trees than we remove as we build new transit.

Metrolinx has developed a Vegetation Guideline that specifies how many trees need to be planted when any tree is removed, ranging from 1 to 50 new trees based on the size and location of the tree being removed. The Vegetation Guideline is used across our entire network to ensure more trees are planted than removed as we carry out the largest transit expansion in the history of the region.

Our goal is always to keep the number of trees we remove to a minimum and we strive to replace them in areas where they are being removed as early as we can.

**Q53. Will the subway trains shake our houses like the freight trains currently do?**

No. Noise and vibration are created where the subway train wheels pass over the tracks, and we are investing in modern technology that reduces noises and vibration created at the source.

For example, one of the solutions available to us is called ‘floating slab’ track. This track design has been proven to work on many subway lines around the world, including the recent western extension of Line 1 to Vaughan. It involves attaching the tracks to concrete slabs that ‘float’ above the subway tunnels on thick rubber pads that absorb vibration from passing trains.

Near the train storage facility - where subway trains will be inspected, stored and cleaned while not in service - we will use noise barriers to block sounds coming from the existing railway corridor.

These are just two solutions in a wide array of proven technology available for the project, including resilient fasteners, ballast mats and devices called moveable point frogs that reduce the gap between rails that cross one another to help reduce noise and vibration from passing subway trains.

We will have more detailed information about the solutions we’ll be putting in place as further design work is refined.

**Q53. Will Metrolinx confirm the use of floating slab technology as the best mitigation technique for this alignment and that this technology will be deployed all the way along under our community from under the Gazebo to the CN tracks?**

Metrolinx is committed to using floating slab subway track from Royal Orchard Station to the tunnel portal. We'll be able to confirm the exact details that will be used once we finalize more planning and design work.

**Q55. What are the plans to accommodate for smell? Will there be vents throughout the community or only at the stations?**

There are no plans for vents within the Royal Orchard community. The closest ventilation systems would be at Royal Orchard Station and at the launch shaft site near Langstaff Road. Any air ventilation needed will meet provincial regulations and standards.

**Q56. When will you be contacting homeowners to discuss tunnelling and purchasing the soil underneath our homes? Who is getting compensated?**

We first met with impacted property owners in December 2021 to inform them that their property will be impacted by the project. Our negotiator will be getting in touch with affected homeowners within three to four weeks to discuss property acquisition and compensation. We do not share details about confidential property acquisition negotiations.

**Q56. Once the subway operating, what constraints will local owners be put under?**

The new subway extension will be deep enough underground not to impact the use of properties in the neighbourhood.

**Q58. How are you going to help us feel more comfortable about a train running under our house?**

Our goal will be to minimize impacts to communities like Royal Orchard as much as possible as we deliver major transit benefits to them.

The bottoms of the subway tunnels will be at least 21 metres deep in the Royal Orchard community - roughly as deep as a six-storey building is tall. The tops of the tunnels will be at least 14 metres below the surface and will be built to strict design and engineering standards. We're confident that high-quality, modern tunnels built to the latest industry standards will ensure future subway services won't be a disruption for the community.

We're also 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 like Royal Orchard stay sought-after places to live in.

**Q59. Will you be assessing air quality while the trains are running?**

When the subway is in operation, standards for air quality in the tunnels and stations will follow TTC guidelines.

**Q60. What will the traffic implications be during construction? What will happen to the people living on Kirk that need to get to Yonge when Royal Orchard Blvd is closed?**

The tunnel boring machines will be assembled and lowered into the ground from the Langstaff Gateway area, south of Highway 407 and west of the existing railway corridor. This area was selected because it is far away from homes and businesses and will limit the need for construction vehicles to travel through residential areas.

Building a new subway extension that will connect four cities along the Yonge Street corridor is a massive undertaking, and we'll be working closely with municipalities, local transit agencies and future construction partners to introduce coordinated plans and solutions that will minimize disruptions and keep people moving.

We'll make sure communities get plenty of notice ahead of time using all available communications channels, and we'll use clear and highly visible signage to make driving, cycling or walking around construction areas as easy as possible. These plans will be brought forward to future community liaison committees for discussion.

To determine traffic management plans, we start with detailed modelling to look at the various options for construction staging to minimize disruption and analyze all elements of the transportation network before we move forward with recommendations. This analysis involves a thorough assessment, and we work very closely with the municipalities to get the necessary data to inform this work.

**Q61. Following the development of the subway, what will happen to schools and green spaces when people start moving into the neighbourhood?**

At Metrolinx, our mandate is to build and operate transit and to connect communities across the Greater Toronto and Hamilton Area. Metrolinx will continue to work with its municipal partners and the Province of Ontario to ensure this transit project is implemented as part of a deliberate growth management strategy.

**Q61. What are the standards for noise and vibration? Will Metrolinx make sure that additional mitigation is supplied in order to meet these standards?**

Metrolinx uses provincial guidelines to assess the noise and vibration associated with the operation of new transit lines, as well as facilities that support them like bus terminals, station entrance buildings, and train storage facilities.

Metrolinx has also adopted the ground-borne noise standards from the Federal Transit Administration in the United States. These standards are used extensively throughout the US and Canada for transit projects. If noise and vibration levels are predicted to exceed these guidelines, Metrolinx will select from an array of proven solutions to bring them to the guideline limits.

**Funding and Coordination****Q63. Has CN agreed to let Metrolinx run the train underneath their tracks? CN was proposing 3 tracks in the community, how does that affect the subway?**

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. 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.

**Q64. How much funding from the budget have you set aside to acquire property from CN?**

Please note that Metrolinx does not share details about confidential and commercially sensitive property acquisition and negotiations.

**Q65. When will Metrolinx confirm that as Metrolinx will "own the asset" from Finch north to High Tech, that maintenance of this asset is Metrolinx's responsibility?**

As owner of the Yonge North Subway Extension, Metrolinx will ensure that it is maintained throughout its life. That means Metrolinx will set the standards and requirements for all maintenance done on the extension.

**Q66. How will you ensure that the current promises being made to our community will stand the test of time, and survive turnover in your company?**

Metrolinx is committed to working closely with residents, businesses and communities along the route of the extension through construction and beyond. We take our commitments seriously and we document them in detail, so they are incorporated as priorities that are monitored and delivered throughout the life of our projects. We will continue to answer your questions and ask for your input as we move forward with the planning and design work for the project.