

YONGE NORTH SUBWAY EXTENSION

Project Overview

April 29, 2021

PLANNING TIMELINE

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2007

2008

2009

2012

'Move Ontario 2020' Yonge North Subway Extension was part of the Province's 52 rapid transit projects identified in its Move Ontario 2020 Plan		extension to Richmond Hill Centre; a phased subway to Steeles Avenue with Bus Rapid Transit service to Richmond Hill Centre; and a phased subway extension with increased parallel GO Rail service frequencies
<i>'The Big Move 2008'</i> The proposed Yonge North Subway Extension was identified as a top 15 priority project and one of the prioritized transit projects in the GTHA in the Regional Transportation Plan (RTP) approved by the Metrolinx Board in November 2008.	2014	Addendum to EA Approval An addendum to the Environmental Assessment was approved to include an underground train storage facility and surface facilities.
Yonge Subway Extension EA Approval TPAP was completed for 7.4 km extension to Richmond Hill with 6 new stations	2016	Government Funding for Detailed Plan The provincial government announced support of \$55 million to Metrolinx in order to work with the TTC and the York Region on a detailed plan for the subway extension
 Yonge North Subway Extension Benefits Case' Metrolinx completed and released the the first Benefits Case Analysis in June 2009 including an evaluation of three options: a full subway extension with 6 stations; a full subway extension with 5 stations; and a Bus Rapid Transit extension with Richmond Hill GO Line service improvements. Metrolinx BCA concludes subway has positive environmental, economic, land development and community benefits with Royal Orchard Station providing limited incremental benefits 	2018	MOU established to guide Preliminary Design and Engineering (PDE) PDE funding (\$91.3M) provided by Province and York Region (Public Transit Infrastructure Fund Phase 1) TTC led and project managed all aspects of PDE work
' <i>Conceptual Design Report'</i> endorsed by TTC and YRRTC Boards, including removal of Royal Orchard Station	2019	Government Investment in Building the Project over the Next 10 Years The provincial government announced support of funding towards the project. TTC and YRRTC presented significant increase in capital cost Project delivery uploaded to Province (Metrolinx/IO)

2013

Metrolinx initiated Value Engineering and Initial Business Case using extensive work already completed

'Yonge North Subway Extension Benefits Case Analysis Update' This analysis is a continuation of the study done in the Yonge North Subway Extension Benefits Case 2009. This Analysis included an evaluation of three options: a full subway

BETTER TRANSIT CONNECTIONS FOR YORK REGION & TORONTO

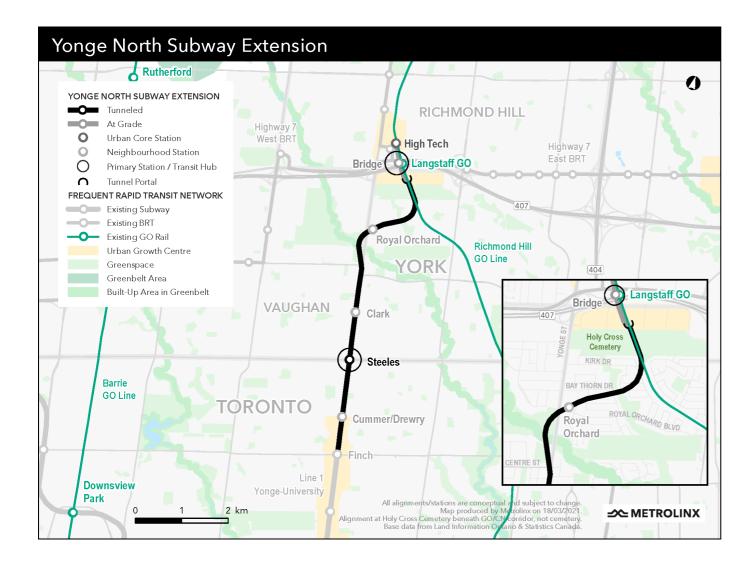
- Four new stations along an approximately eight-kilometre extension of TTC Line 1, from Finch Station north to Richmond Hill.
- Steeles Station will be a hub for local bus routes as well as a **future rapid transit line** along Steeles Avenue.





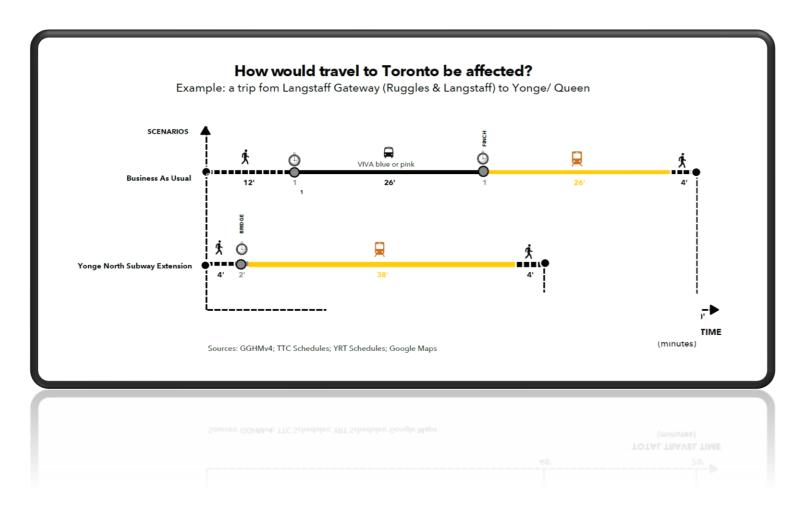
- Bridge Station will conveniently connect with GO train, GO bus, and local transit service, including VIVA BRT.
- High Tech Station will serve future communities envisioned within the Richmond Hill Centre area.
- Metrolinx is working with municipal partners to **evaluate and determine** the best location for the fourth station as planning work continues.

BY THE NUMBERS



Route length	~8 km
Ridership	94,100 daily boardings
Improved access to transit	26,000 more people within a 10-minute walk to transit
Improved access to jobs	22,900 employees within a 10-minute walk to transit
Daily reductions in traffic congestion	7,700 km in vehicle kilometres traveled
Yearly reductions in greenhouse gas emissions	4,800 tonnes

KEY BENEFITS



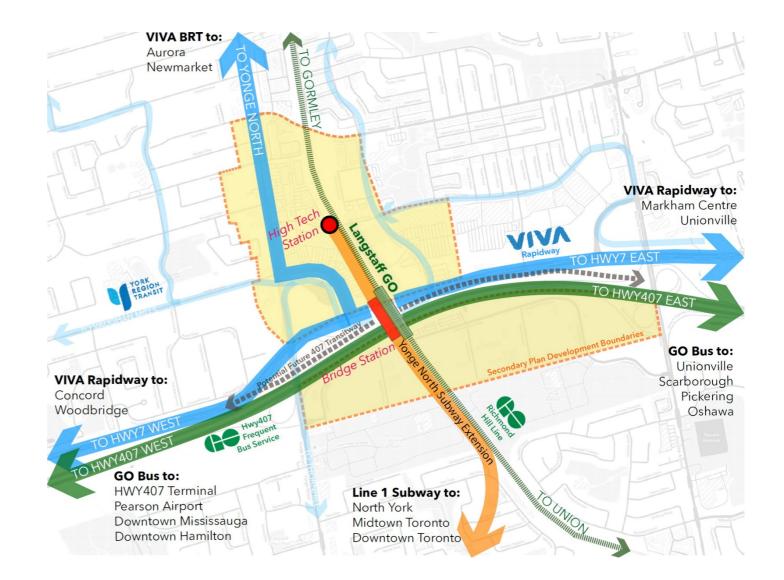
The extension will save riders as much as 22 minutes on a trip from York Region to downtown Toronto

- Bridge Station maximizes TOC opportunities by connecting two communities in Markham & Richmond Hill that are poised for growth.
- Shifting the alignment in the northern section reduces construction timelines and property needs by using a dedicated rail corridor that already exists.
- The project will serve **94,100 riders each day** by 2041, cutting the time spent commuting in Toronto and York Region by a combined **835,000 minutes daily**.

INTERCONNECTIVITY

Bridge Station and High Tech Station will serve the highest density areas to make it faster for riders to use the subway, and better for supporting growth and curbing local traffic congestion.

- Fast and hassle-free transfers to GO train/GO bus/local transit
- **Convenient access** to the subway at the heart of Richmond Hill Centre and Langstaff Gateway development areas
- More than half of Richmond Hill Centre residents will live within walking distance of High Tech Station by 2041
- Bridge Station site preserves nearby development space to allow the area to evolve into a **thriving urban centre**



PROPOSED MAJOR CHANGES TO PROJECT ELEMENTS CONSIDERED IN IBC

Steeles Station

Moving Steeles Bus Terminal from Below Steeles Avenue to at-grade integrated with development

Original proposal planned the bus terminal below Steeles Avenue perpendicular to and above the subway station
Value engineering recommended relocating to at-grade to reduce costs and minimize impacts to YDSS and construction disruption

East Don River

Tunneling below instead of bridging over the East Don River

Original proposal planned a two level (upper for road - lower for subway) bridge spanning the river valley
Value engineering recommended tunneling below the watercourse to reduce costs and disruptions during construction

Train Storage Facility Moving the YNSE Train Storage Facility north of High Tech Road from below ground to at-grade

• Original proposal planned a 3-track, 12 train below ground storage facility

• Value engineering recommended bringing the facility to at-grade in order to reduce costs while maintaining similar functionality

YNSE Alignment Changing the point where the subway alignment shifts off of Yonge Street

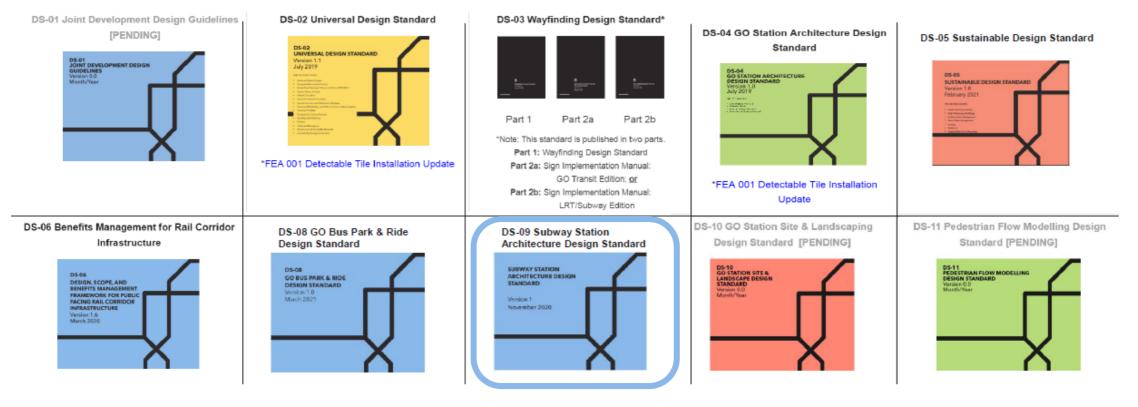
- Original proposal for the alignment to shift east of Yonge Street north of Holy Cross Cemetery
- Value engineering and peer review identified potential benefit increases and cost reductions from bringing the subway to at-grade adjacent to the CN corridor, which will also better serve the central portions of the Richmond Hill Centre and Langstaff Gateway Urban Growth Centre

METROLINX STATION ARCHITECTURE DESIGN STANDARDS



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- The Design Standards are a compilation of design requirements for Metrolinx transit infrastructure with an emphasis on public-facing elements.
- The Design Standards cover design elements that are both internal and external to transit station and stop environments, including requirements for universal design, harmonized wayfinding, sustainable design and resiliency, station design among others.



METROLINX STATION ARCHITECTURE DESIGN STANDARDS

Priorities

- Alignment with regional approach to Architectural expression
- Customer Experience
- Intuitive wayfinding
- Operability and function
- Durability
- Integration with Urban Fabric

Strategies

- Massing, Planning principles
- Natural light
- Feature walls
- Pedestrian flow analysis
- Finish and Material performance



Below grade typology - Exterior view

Note: Renderings do not represent final branding application. Appropriate placement and scale of operator logo is currently in development in DS-03.

METROLINX SUBWAY STATION ENTRANCE - PUBLIC REALM



Figure 6-8c: Small Midblock Plaza Perspective View

Figure 6-50: Below Grade Platform - Perspective View

Configuration of common elements is illustrative only. The configuration of the site may evolve over time and shall respond to the local context.

PRELIMINARY STEELES STATION REQUIREMENTS

Planning

- Maintain the intent and not preclude implementation of regional/municipal plans and policies (OP's, secondary plans, etc.)
- Balance between capital, operating, maintenance and renewal costs in the decision making on applicable scope elements

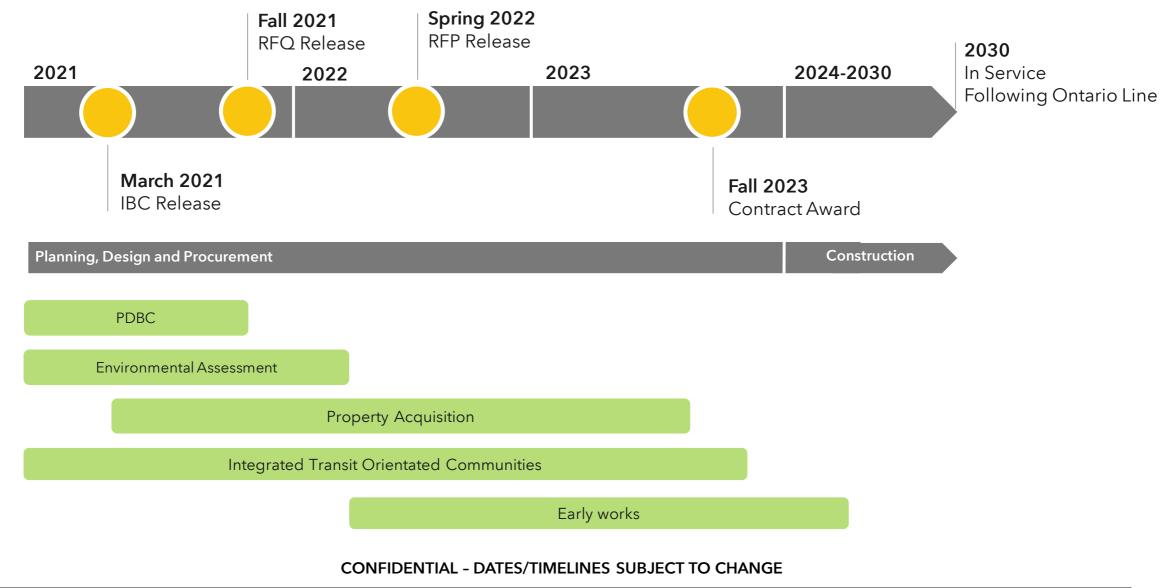
Major Technical

- Minimum of one Primary entrance (south of Steeles) and one Secondary entrance (north of Steeles)
- Bus terminal integrated with development
- Minimize risk to YDSS with station box shifted to south of the Steeles Avenue intersection
- Accommodate connection to future Steeles Ave BRT

Next Steps

- Advance Steeles Station design options
- Continue engaging municipalities and TTC through requirements development, optioneering and evaluation

PROJECT MILESTONES



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- 416-202-7000
- Bi-weekly E-Blast (subscribe via email)

Project Information:

- Metrolinx.com/YongeSubwayExt
- Virtual Open House link: <u>www.metrolinxengage.com/YongeSubwayExt</u>

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