Welcome to the GO Expansion OnCorridor Program
As part of GO Expansion, Metrolinx has identified various infrastructure improvements like new tracks, train layovers, switches, bridge modifications and safer crossings to benefit rail service. Collectively they make up the OnCorr Program—the focus of tonight’s meeting.

The OnCorr improvements require Environmental Assessments (EAs) under the Transit Project Assessment Process (TPAP).
GO Expansion - OnCorr Program

Rail Corridor Electrification

Metrolinx received approval for the GO Rail Network Electrification TPAP in 2017. An addendum to this TPAP will address areas requiring further assessment from an electrification perspective.

Electrification of a portion of the Richmond Hill Corridor is included in the New Track & Facilities TPAP.

Benefits of Electrification

- A faster, more attractive service, including trains that accelerate faster and stay at top speed for longer, saving customers time.
- A more efficient, reliable service with more frequent trips and lower operating costs.
- Other supporting benefits, including reductions in greenhouse gas emissions and improved local air quality.
Proposed Electrification Infrastructure - Richmond Hill Corridor

Electrification of the Richmond Hill Corridor is required to:

- Reduce rail congestion at Union Station.
- Allow trains to turn back to Union Station.
- Reduce train idling and dwell times at Union Station.

Bridge Modifications

Electrification Protective Barriers (EPB)
Barriers are required on overhead bridges to ensure safety of the energized equipment. Approximate barrier height is 2 meters.

Overhead Catenary System (OCS) Attachments
Used for support of OCS wires in situations with restricted clearance such as tunnels and overhead bridges. Underside attachment Overhead catenary

Flash Plates
A conductive plate installed above a bare energized wire and below reinforced concrete. Flash plate sizing is dependent on bridge size.

Grounding and Bonding
A system of aerial and buried grounding conductors and ground rods with connections from metallic objects to the earth/ground to dissipate energy. In some instances, copper cables are used to interconnect (or “bond”) metallic objects to other components of the traction return system.

Bridges on the Richmond Hill Corridor that require Bridge Protection Barriers include:
- Eastern Avenue Bridge
- Don Valley Parkway Ramp
- Dundas Street East Bridge
- Gerrard Street East Bridge
- Riverdale Park Pedestrian Bridge
- DVP to Bayview Extension Bridge

Flood Mitigation for Richmond Hill Corridor
Metrolinx is undertaking a preliminary stormwater management assessment to identify potential impacts to the Lower Don River and future steps/mitigation measures.

Metrolinx is also undertaking the Don Valley Flood Mitigation Study to assess impacts of flooding along the Richmond Hill Corridor within the Don Valley.
### Proposed Track, Switch Locations & Platforms Across the Network

<table>
<thead>
<tr>
<th>Rail Corridor</th>
<th>Kilometres of New Track</th>
<th># New Switches</th>
<th>New GO Station Platforms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lakeshore East</td>
<td>6.28</td>
<td>23</td>
<td>Oshawa GO Station</td>
</tr>
<tr>
<td>Stouffville</td>
<td>2.8</td>
<td>10</td>
<td>Mount Joy GO Station, Unionville GO Station</td>
</tr>
<tr>
<td>Barrie</td>
<td>39.24</td>
<td>32</td>
<td>None</td>
</tr>
<tr>
<td>Richmond Hill</td>
<td>4.19</td>
<td>3</td>
<td>None</td>
</tr>
<tr>
<td>Kitchener</td>
<td>28.09</td>
<td>21</td>
<td>None</td>
</tr>
<tr>
<td>Lakeshore West</td>
<td>19.49</td>
<td>60</td>
<td>None</td>
</tr>
</tbody>
</table>

**What is a switch?**
- A switch enables a train to be guided from one track to another at a railway junction.

**Why are switches needed?**
- Switches allow trains to easily move across the network, providing increased service.
Overview

Significant Addenda to the Barrie Rail Corridor Expansion TPAP (2017)

Environmental Assessment Transit Project Assessment Process (TPAP) Addendum
The Barrie Rail Corridor Expansion Project TPAP assessed infrastructure improvements to bring all-day, two-way GO service to people across Toronto, York Region and Simcoe County.

Improvements assessed included:
- Double track
- GO Station upgrades
- Existing structure upgrades
- New train layover facility

Grade separations at McNaughton Rd. and Wellington St. E. were not assessed in the Environmental Project Report (EPR).

McNaughton Road Significant TPAP Addendum (City of Vaughan)
Metrolinx has determined that the proposed McNaughton Rd. grade separation represents a significant change to the approved Barrie Rail Corridor Expansion Project TPAP EPR, and an addendum is required.

Wellington Street East Significant TPAP Addendum (Town of Aurora)
Metrolinx has determined that the proposed Wellington St. E. grade separation represents a significant change to the approved Barrie Rail Corridor Expansion Project TPAP EPR, and an addendum is required.
Project Overview

Project Purpose

- The Scarborough Junction Grade Separation Project will facilitate the GO Expansion Program and accommodate the expansion of the service on the Stouffville Rail Corridor through grade separations and related infrastructure.

- Reducing the number of road and rail at-grade crossings is essential to support transit expansion and will provide community benefits.

- This project will support the effort to create a fully grade separated rail corridor between Union Station and the Unionville GO Station.

Project Components - Planned Approach

- Corvette Park - Multi-use Crossing (Bridge or Tunnel)
- Danforth Road - Rail Tunnel
- Rail / Rail Grade Separation
- St. Clair Avenue East - Bridge Expansion

The Project may potentially require modification or relocation of the Scarborough GO Station building to accommodate the additional track. Further details will be provided as design details progress.
Project Overview

Project Purpose
• The Stouffville Rail Corridor Grade Separations Project will facilitate the GO Expansion Program and accommodate the expansion of the service on the Stouffville Rail Corridor through grade separations or road closures at seven road and rail at-grade crossings.
• Reducing the number of road and rail at-grade crossings is essential to support transit expansion and will provide community benefits.
• This project will support the effort to create a fully grade separated Stouffville Rail Corridor between Union Station and the Unionville GO Station.

Grade Separations - Planned Approach
City of Markham, York Region
• Denison Street - Road Under Rail
• Kennedy Road - Road Under Rail

City of Toronto
• Passmore Avenue - Road Under Rail
• McNicoll Avenue - Road Under Rail
• Huntingwood Drive - Road Under Rail
• Havendale Road - Road Closure with Multi-Use Crossing
• Progress Avenue - Road Over Rail
Benefits of GO Expansion: Personal and Regional

- **MORE TRIPS**
  - 6,000 weekly trips
  - 2x as many rush-hour options
  - 3x as many off-peak options

- **FASTER TRAVEL**
  - Electric trains accelerate and decelerate faster enabling the introduction of additional express services saving customers 20 min per day.

- **HIGH FREQUENCY**
  - No need to check a schedule with service every 15 minutes or better, in both directions, all day.

- **MORE CAPACITY**
  - Doubling regional commuter capacity equivalent to nine highways the size of the 401

- **REduced CONGESTION**
  - More trains = reduced congestions across the region, taking close to 145,000 car trips per day off the roads.

- **CREATE JOBS**
  - An estimated 8,300 annual jobs created for the first 12 years of delivery.

- **SAVES TAXPAYER MONEY**
  - All operating costs covered with fare box revenue. GO Rail revenues will exceed 110% of operating costs over the next 60 years.

- **INCREASED RIDERSHIP**
  - More options and faster trains will increase peak and off peak service. By 2055 annual ridership will exceed 200 million.
GO Expansion Program

GO Transit Expansion Program - Delivery strategy

Enabling Works - Projects Underway:
- 10 stations under construction (Bramalea, Bloomington*, Weston, Rutherford, Agincourt, Milliken, Unionville, Cooksville, Kipling, Union Station)
- 29 stations slated for early station improvements (customer service and safety improvements, including PA systems, platform edge tiles, display boards)
- 3 corridors with track work underway (Stouffville double track, Barrie double track, Hamilton Junction track and signals in partnership with CN)
- 3 grade separations (Davenport Diamond, Steeles Avenue, Rutherford Road)
- 4 tunnel/bridge expansions (401/409 Tunnel expansion, Centennial bridge in partnership with CN, John Street in partnership with CN, and Desjardin Canal Bridge in partnership with CN)

*new station

Next Phases:
- Preparation of an integrated contract to deliver and operate enhanced train service
- Procure any additions to the fleet as required for the enhanced train service
- Design-build any outstanding infrastructure not constructed as part of the enabling-works to support enhanced rail service (in procurement)
Lakeshore West Line: Before & After GO Expansion
GO Expansion Program

Lakeshore East Line: Before & After GO Expansion

- **Without GO Expansion AM Peak**: Every 30 mins.
- **Without GO Expansion Off-Peak**: Every 30 mins.
- **Go Expansion AM Peak**: Every 10 mins, every 15 mins.
- **Go Expansion Off-Peak**: Every 15 mins.

*Local service to Oshawa every 15 mins between 0800 and 0930hrs.*
Kitchener Line: Before & After GO Expansion

METROLINX
Barrie Line: Before & After GO Expansion

Without GO Expansion AM Peak

GO Expansion AM Peak

GO Expansion Off-Peak

Without GO Expansion timetable based on July 2017 GO Transit timetable, before off-peak service from Aurora was implemented.
Stouffville Line: Before & After GO Expansion

GO Expansion Program

METROLINX
Anticipated Timeline

**GO Expansion – New Track & Facilities TPAP**

**Pre TPAP Consultation**
- Complete Studies, Conceptual Design, and Consultations with Stakeholders
- Document Findings in Environmental Project Report (EPR) Addenda

**Transit Project Assessment Process**
- Notice of Commencement
- Consult stakeholders and document findings in Environmental Project Report (EPR)
- Notice of Completion
- Stakeholder Review of EPR
- Minister Review of EPR and Notice

**Design and Construction**
- Development of Detailed Design and start of construction

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**2019**
- Complete background studies
- Stakeholder meetings

**Winter/Spring 2020**
- Stakeholder Reponses & Meetings
- Prepare Draft EPR/EPR Addenda
- Internal/external stakeholder reviews
- Public Meeting #1 (February 2020)
- Public Meeting #2 (Spring 2020)

**Up to 120 Days**
- Draft EPR Spring 2020
- Public Meeting #3 (if required)

**30 Days**
- Final EPR Fall 2020

**Up to 35 Days**
- Minister Review of EPR Addenda and Notice

**Starting in 2021**
- Winter 2020
Share Your Thoughts. Your Opinion Counts!

Visit us online at:
- www.metrolinxengage.com
- www.metrolinx.com/GOexpansion

E-Mail your Metrolinx Community Relations Team:
- TorontoEast@metrolinx.com (East of Don River)
- TorontoWest@metrolinx.com (West of Don River)
- HaltonRegion@metrolinx.com
- DurhamRegion@metrolinx.com
- YorkRegion@metrolinx.com
- Peel@metrolinx.com
- SimcoeCounty@metrolinx.com

Fill out a comment form:
- Please fill out a comment form and leave it with the Project Teams. We want to hear from you!