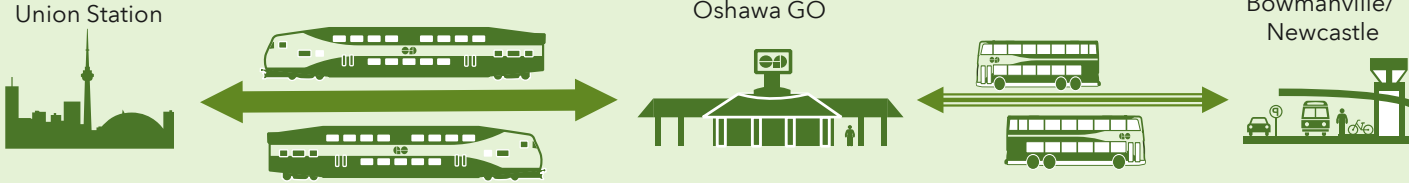


Bowmanville Expansion Project Status Update

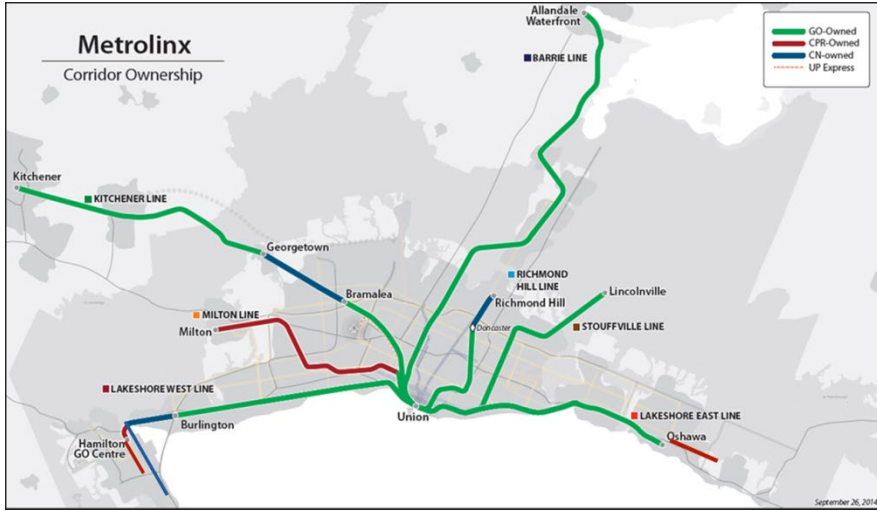
LAKESHORE EAST: UNION - OSHAWA - BOWMANVILLE

Existing Daily Service, All Day



Service Description

- Daily GO train service provided all day in both directions between Oshawa & Union Station
- Daily GO bus service provided all day between Bowmanville / Newcastle & Oshawa GO, connecting with GO trains to/from Union Station



Initial Business Case Study Area: Options Under Consideration

Bowmanville Rail Extension Alignments Under Review

ALIGNMENT OPTIONS

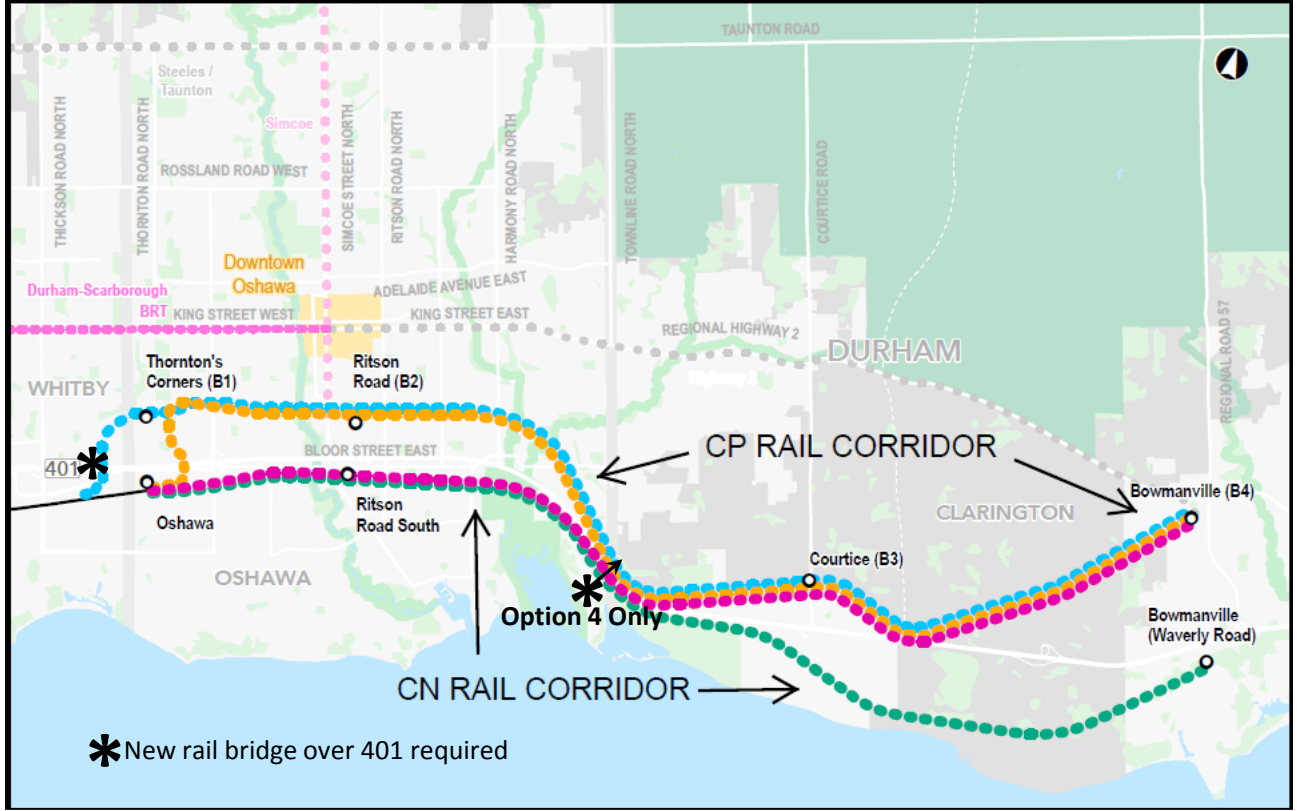
- Option 1 (CP Alignment)
- Option 2 (CP GM Alignment)
- Option 3 (CN Alignment)
- Option 4 (CN/CP Alignment)
- Potential Station Location

REGIONAL GO RAIL NETWORK

- Existing GO Rail

FREQUENT RAPID TRANSIT NETWORK

- In Development LRT / BRT
- Proposed LRT / BRT
- Proposed Priority Bus
- Urban Growth Centre
- Built-Up Area
- Built-Up Area in Greenbelt
- Greenbelt Area



INITIAL BUSINESS CASE UPDATE: OPTIONS ANALYSIS

Four options are being examined as part of the updated business case. The options analysis supports future decisions by providing perspective on costs in relation to potential benefits (Benefit Cost Ratio). There are four options that are being modelled to support future decision making:

- **Option 1:** Utilization of the 2016, 401 Highway crossing east of Thicksen Road to Thornton's Corners GO Station. All trips between Bowmanville and Union (running express past Pickering) stop at Thornton's Corners, Ritson Road, Courtice and Bowmanville GO Stations on the extension. Electrified GO Expansion services would terminate at Thornton's Corners leading to the closure of GO rail operations at Oshawa GO Station.
- **Option 2 :** Extension through Oshawa GO Station connecting to Canadian Pacific (CP) Railway's General Motors (GM) spur line to cross Highway 401, and connect to CP's Belleville Subdivision. Trips between Bowmanville and Union would stop at Oshawa, Ritson Road, Courtice and Bowmanville Stations, and run express between Pickering and Union Station. Electrified GO Expansion services would terminate at Oshawa Station.

INITIAL BUSINESS CASE UPDATE: OPTIONS ANALYSIS

- **Option 3** : GO rail services to Bowmanville via Canadian National (CN) Railway's Kingston Subdivision. Trips between Bowmanville and Union operate via a direct connection to CN's corridor once east of Oshawa GO Station. Extension service would stop at new stations at Ritson Road South in Oshawa and Energy Drive near Waverly Road in Bowmanville. Electrified GO Expansion services will terminate at Oshawa station.
- **Option 4** : GO rail services to Bowmanville via CN's Kingston Subdivision eventually connecting to CP's Belleville subdivision over Highway 401 in the vicinity of Colonel Sam Drive in Oshawa. Trips between Bowmanville and Union would stop at new station sites at Ritson Road South and the announced Courtice and Bowmanville GO Stations on CP's subdivision, and would run express between Pickering and Union Station. Electrified GO Expansion services will terminate at Oshawa station.

INITIAL BUSINESS CASE UPDATE: OPTIONS ANALYSIS

	Stations	Railroad Interaction	Service	Cost and Schedule Risk
Option 1	Thorton Corners (B1) Ritson Road (B2) Courtice (B3) Bowmanville (B4)	CP	Peak & All Day Service Patterns	Costs: High Schedule Risk: High
Option 2	Oshawa GO Ritson Road (B2) Courtice (B3) Bowmanville (B4)	CP/CN	Peak & All Day Service Patterns	Costs: High Schedule Risk: High
Option 3	Oshawa GO Ritson Road South Bowmanville (Waverly)	CN	Peak & All Day Service Patterns	Costs: Low Schedule Risk: Moderate
Option 4	Oshawa GO Ritson Road South Courtice (B3) Bowmanville (B4)	CN/CP	Peak & All Day Service Patterns	Costs: Moderate Schedule Risk: Moderate

