

2019.EX4.1

Toronto's Transit Expansion Program – Update and Next Steps

April 9, 2019

Executive Committee

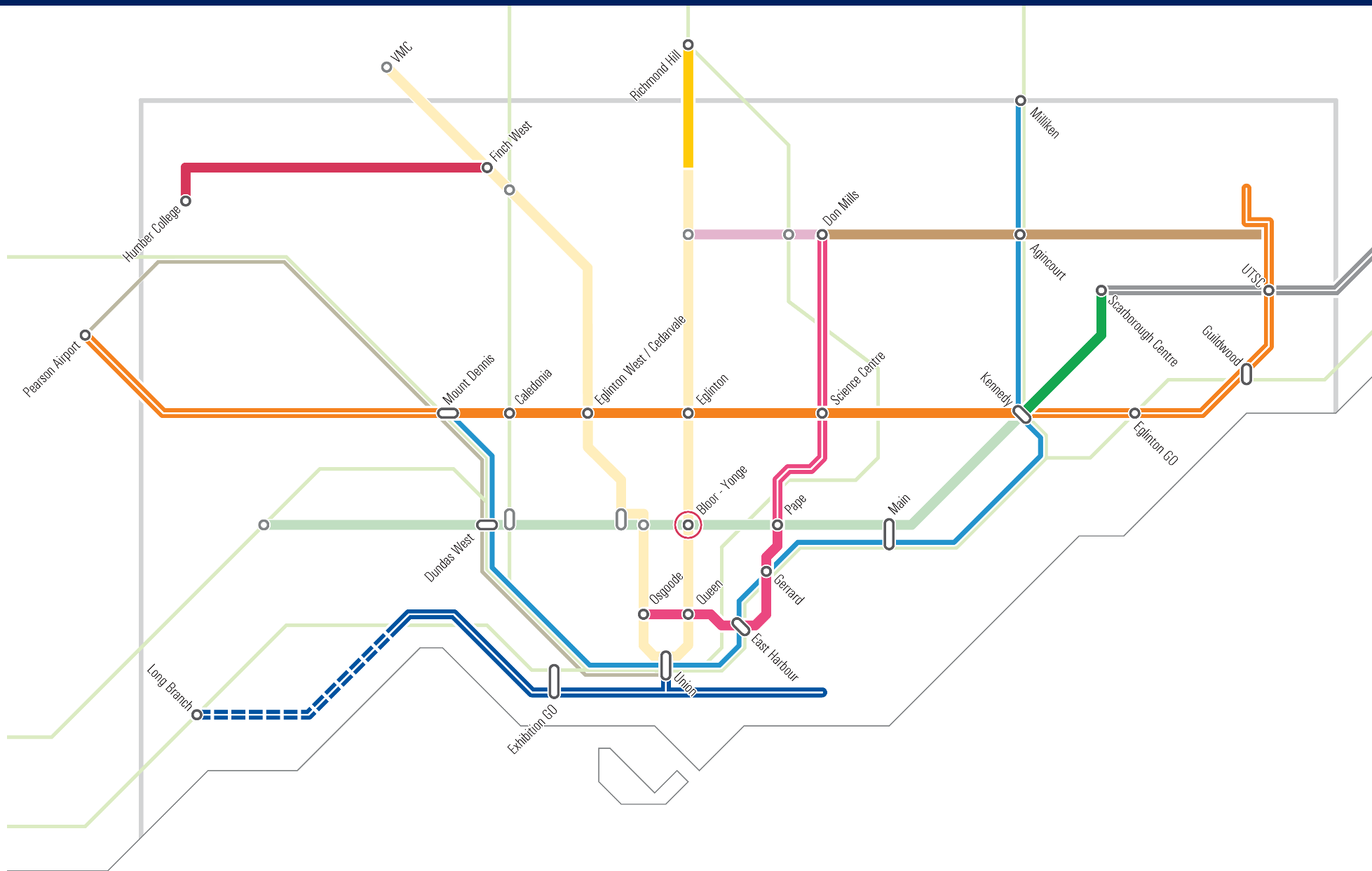
Report Objectives

- Provide a comprehensive overview of the status of Toronto's transit expansion program
- Recommend priority transit expansion projects for inclusion in the City's Public Transit Infrastructure Fund Phase 2 submission to the Province of Ontario and Government of Canada
- Seek authority to advance specific projects to the next phase of work to continue progress on building the network
- Identify key issues requiring further discussion with provincial and federal partners

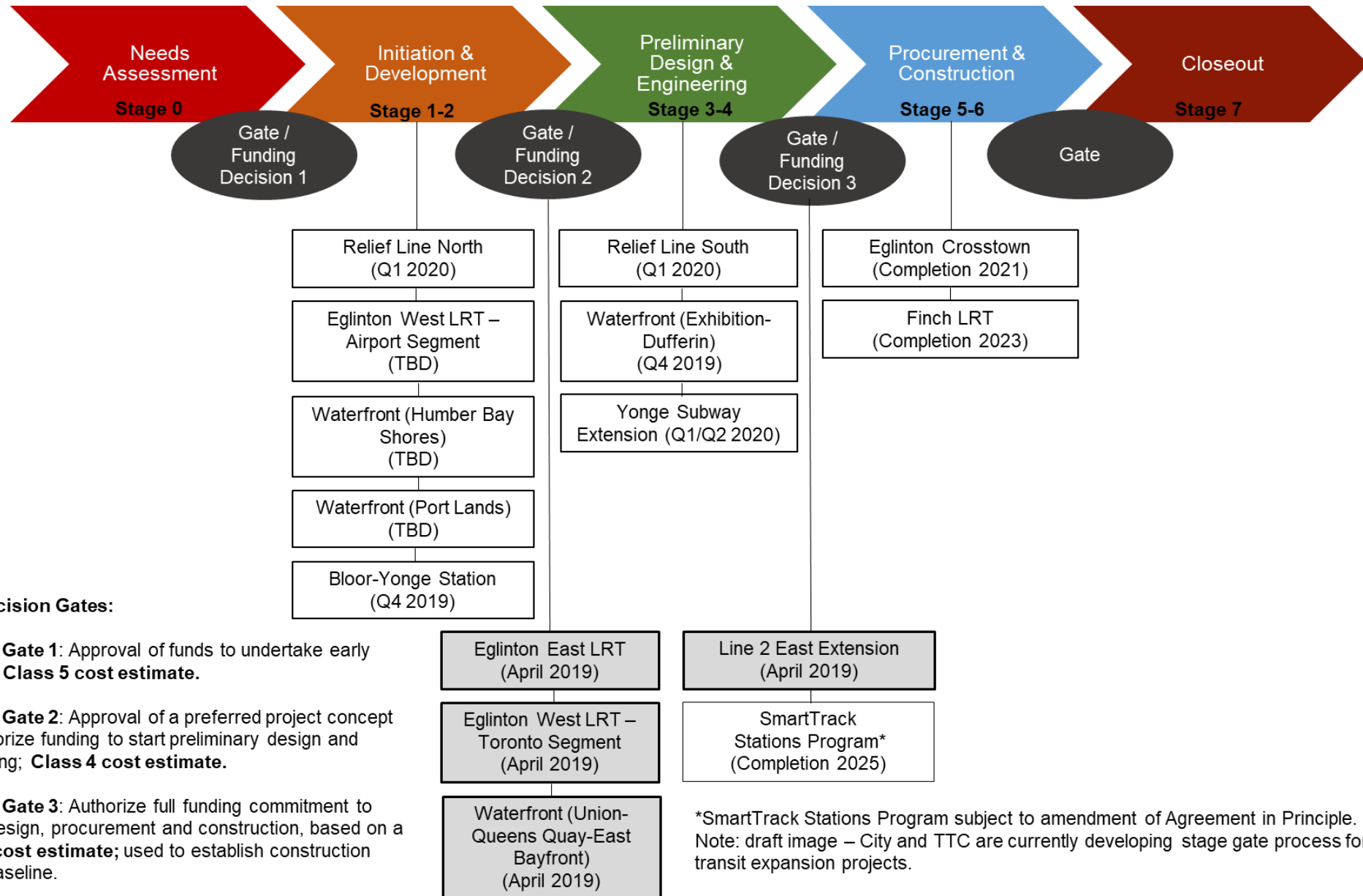
Report Outline

- Main Report
 - Transit Network Program Overview; and
 - Public Transit Infrastructure Fund Phase 2
- Attachment 1 – Status of Transit Expansion Projects
- Attachment 2 – Line 2 East Extension
- Attachment 3 – Waterfront Transit Network – Union Station-Queens Quay Link and East Bayfront LRT
- Attachment 4 – Eglinton East LRT
- Attachment 5 – Eglinton West LRT

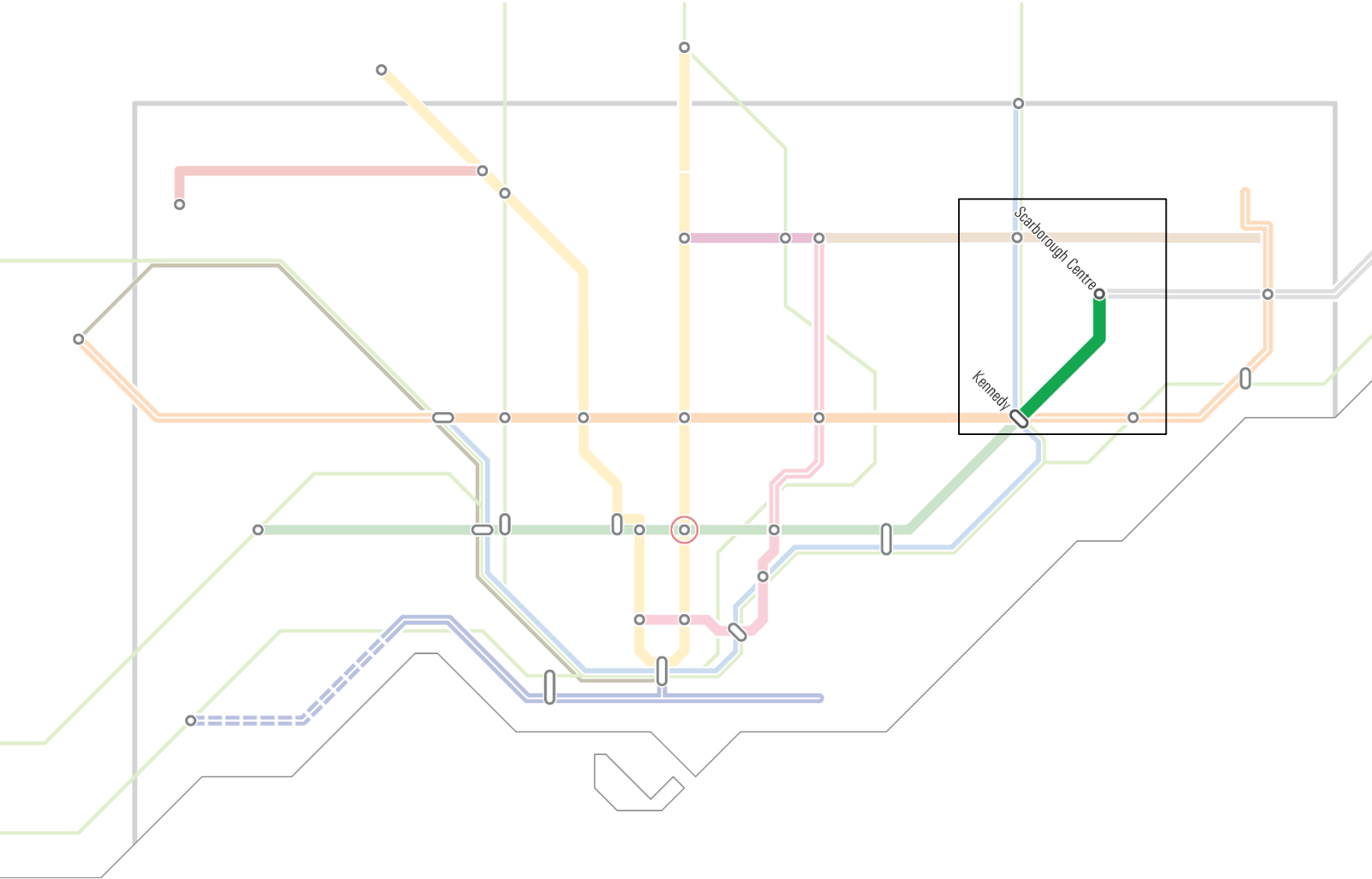
Toronto's Transit Expansion Program



Status of Transit Expansion Projects



Toronto's Transit Expansion Program



LINE 2 EAST EXTENSION

A 6.2 km extension of Line 2 from Kennedy Station to Scarborough Centre Station.

Replaces aging Line 3 Scarborough and supports development of Scarborough Centre

- **Asset Owner:** TTC
- **Current Phase:** PDE complete - ready to proceed to Procurement and Construction Phase
- **Capital Cost Estimate:** \$3.887 B (Class 3)

See Attachment 2 of 2019.EX4.1 for details.

Toronto's Transit Expansion Program

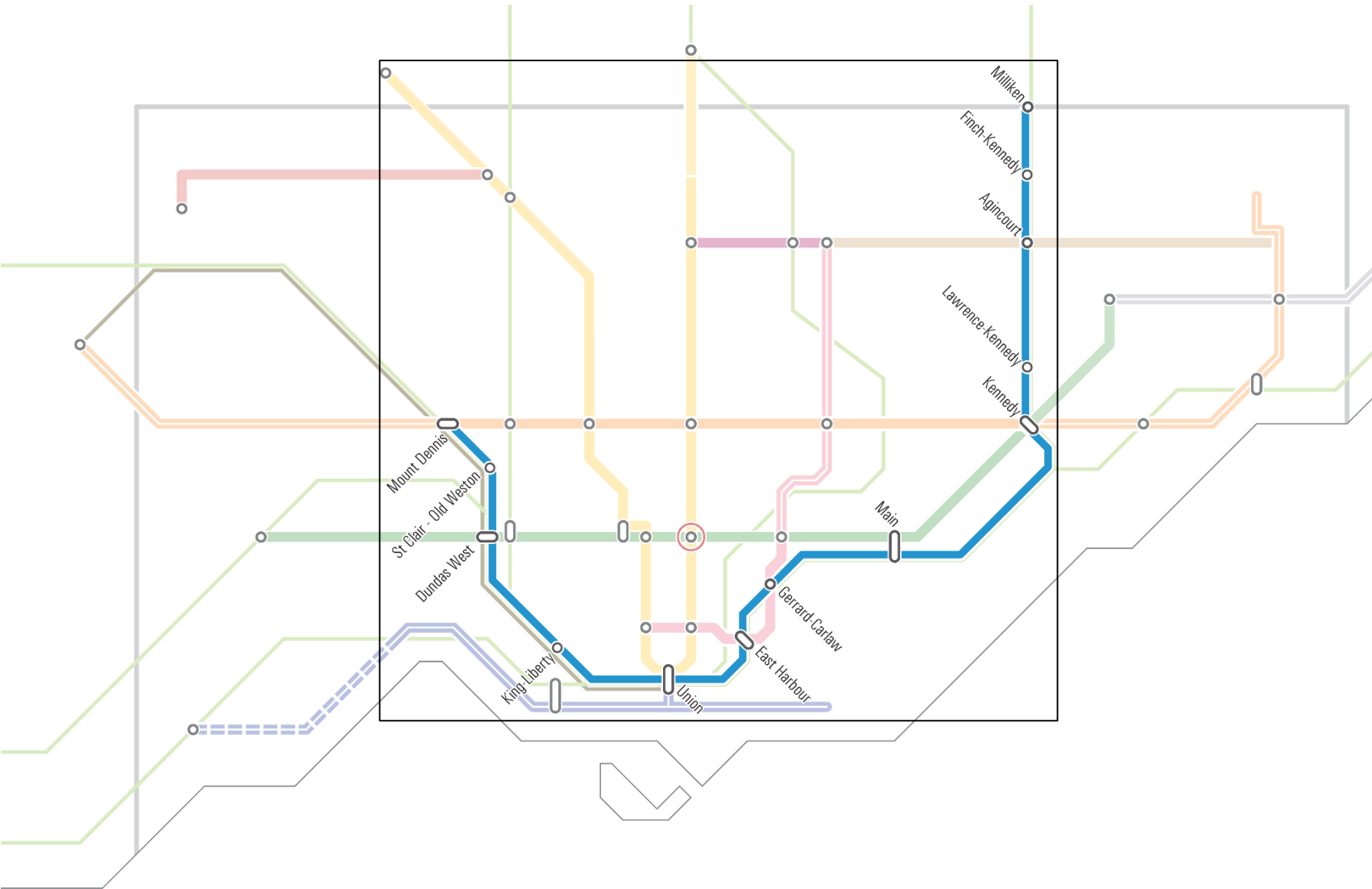
SMARTTRACK STATIONS PROGRAM

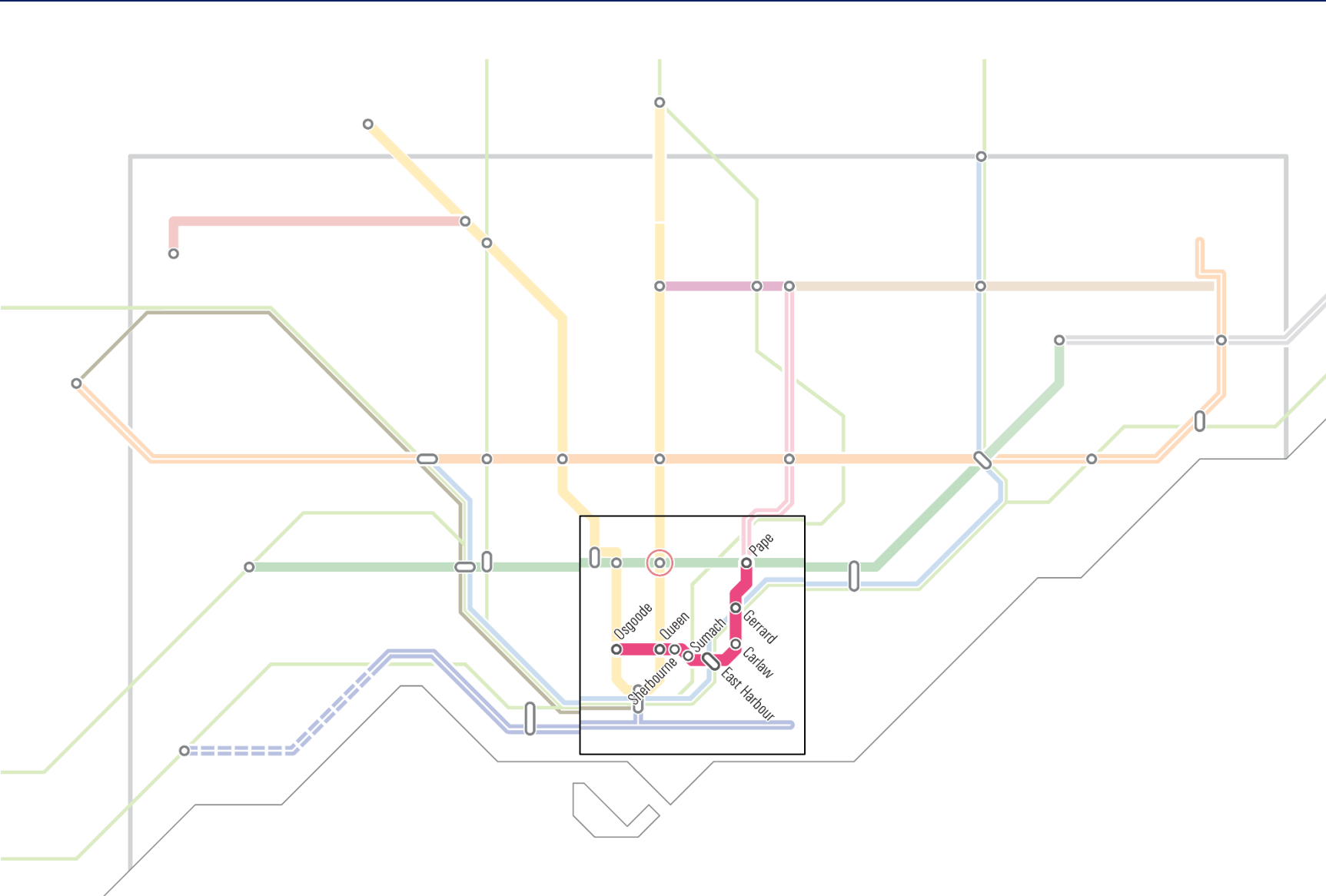
Six new stations on the Stouffville, Lakeshore East and Kitchener GO corridors; 6-10 minute service at peak hours; fare integration

Leverages provincial investment in GO Expansion to support growth and city-building and provide additional transit choice

- **Asset Owner:** Metrolinx
- **Current Phase:** PDE Completed in April 2018
- **Capital Cost Estimate:** \$1.46 B (capped contribution)

See Attachment 1 of 2019.EX4.1 for details.





RELIEF LINE SOUTH

A new eight-station subway connecting Line 2 at Pape Station to Line 1 at Queen and Osgoode Stations

Required by 2031 to reduce crowding and congestion on the Line 1 subway

- **Asset Owner:** TTC (TBC)
- **Current Phase:** PDE (to be complete by Q1 2020)
- **Cost estimate:** \$7.2B, includes \$0.4 in PDE and a construction cost estimate of \$6.8B (Class 5)

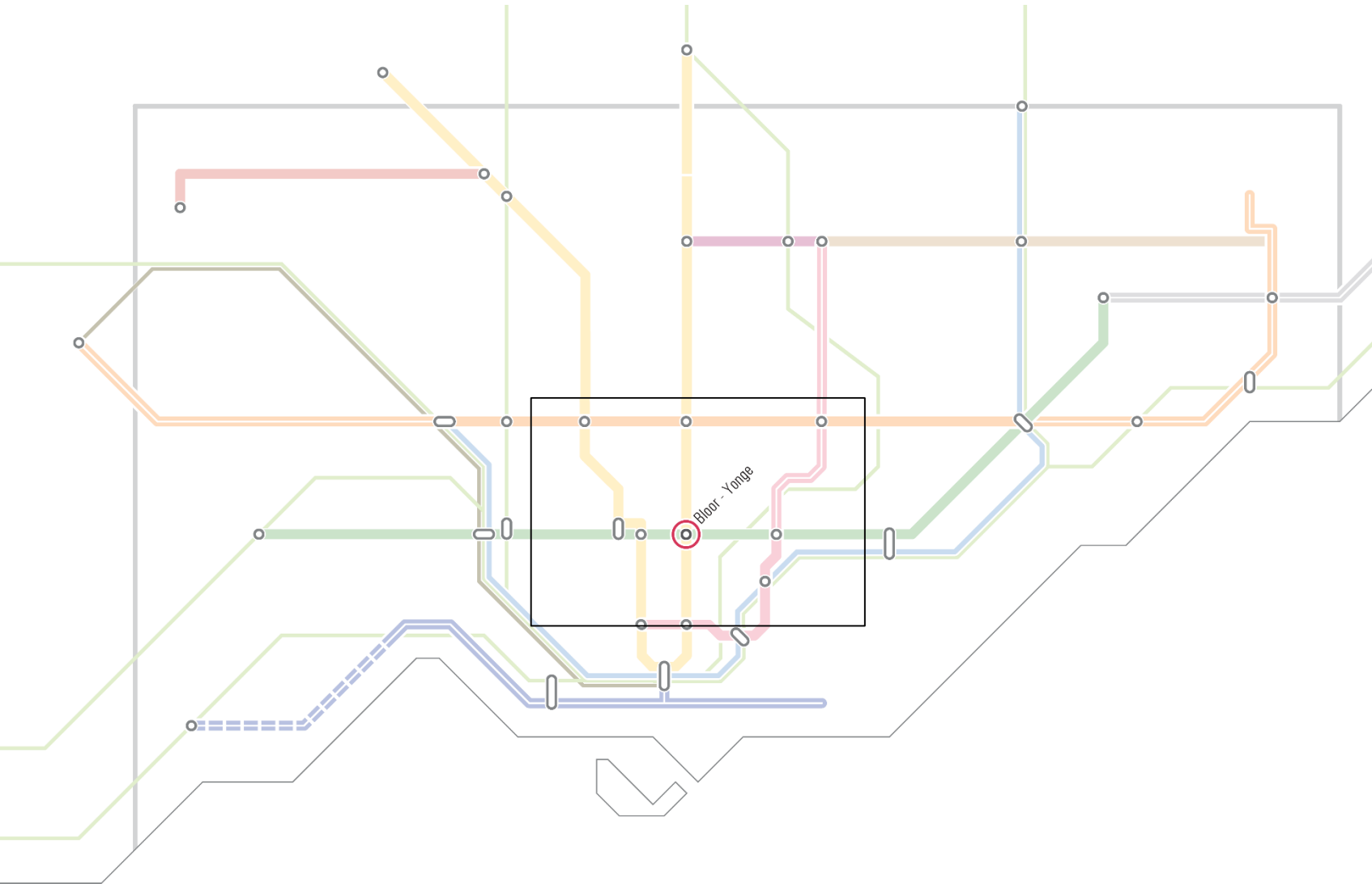
See Attachment 1 of 2019. EX4.1 for details

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Toronto's Transit Expansion Program



BLOOR-YONGE CAPACITY IMPROVEMENT

A station expansion with modifications to address capacity constraints on Line 1

Critical to ensure Bloor-Yonge station can safely accommodate the more than 200,000 passengers that use the station each day

- **Asset Owner:** TTC
- **Current Phase:** Initiation and Development (Concept design on target for completion in 2019)
- **Capital Cost Estimate:** \$1.05 B (Class 5)

See Attachment 1 of 2019. EX4.1 for details

Toronto's Transit Expansion Program

WATERFRONT TRANSIT NETWORK

Several transit expansion and improvement projects including priority segment described below:

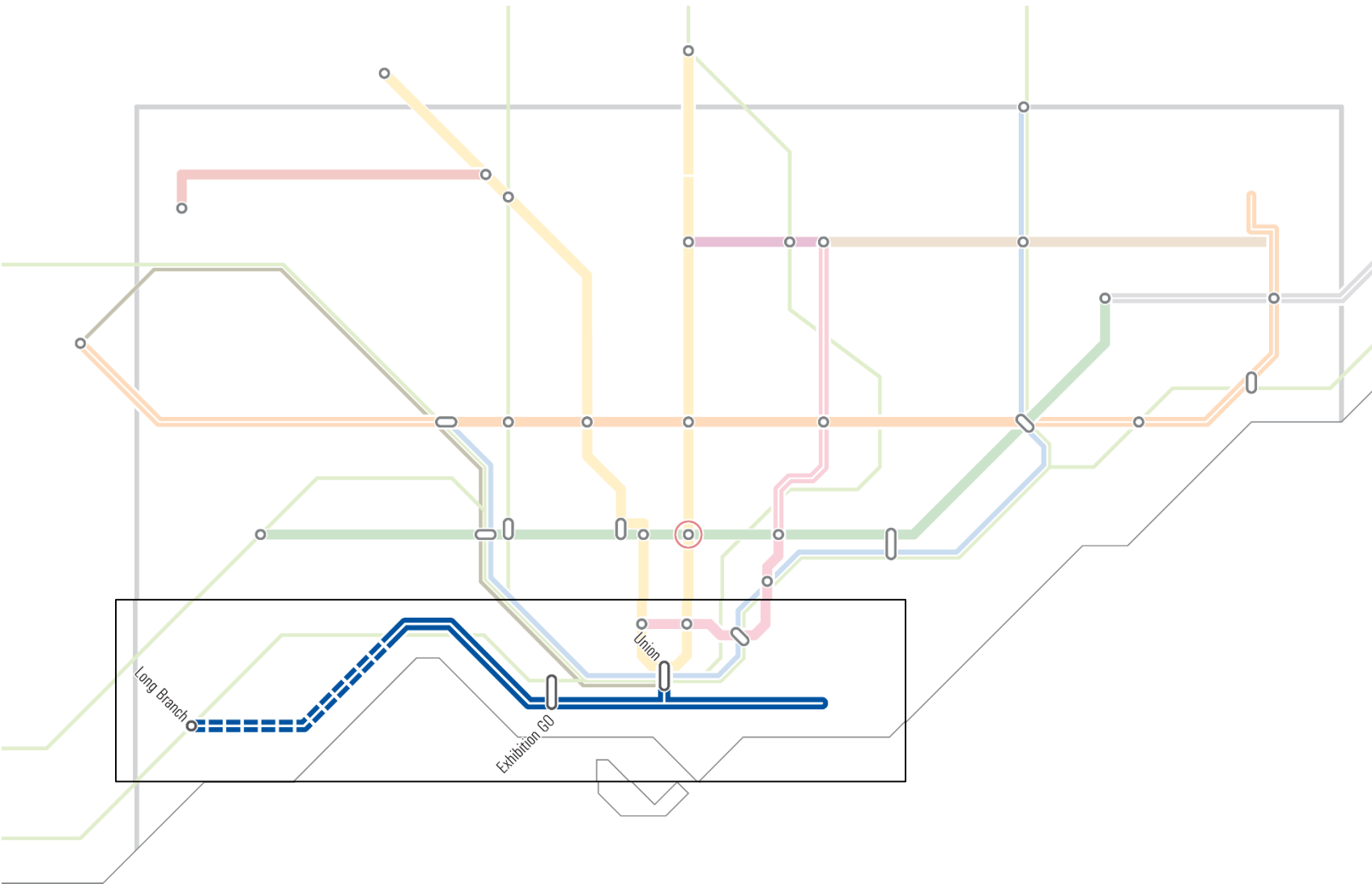
Union Station-Queens Quay Link

Streetcar Loop Expansion expands streetcar network capacity at Union Station to serve transit demand along the waterfront

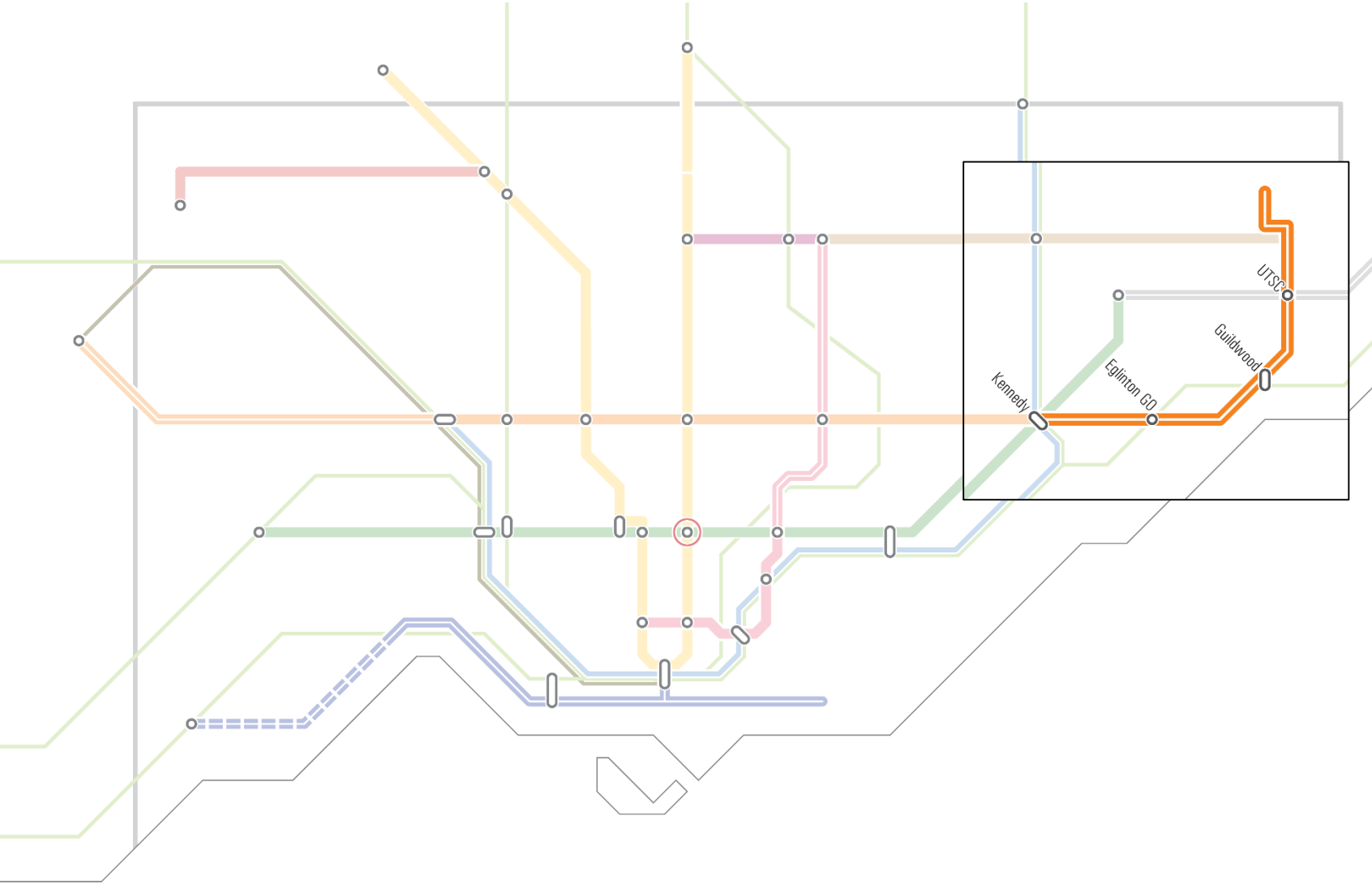
- **Asset Owner:** TTC
- **Current Phase:** Initiation and Development phase complete (ready to go to PDE in 2020)
- **Capital Cost Estimate:** \$612 M (\$2019) (Class 4)

See Attachment 3 for details on Union Station-Queens Quay Link

See Attachment 1 for details on other Waterfront Transit Network Projects



Toronto's Transit Expansion Program



EGLINTON EAST LRT

An eastern extension of Line 5 (Eglinton Crosstown LRT)

Provides transit to underserved communities in the City and supports future growth and development

- **Asset Owner:** Metrolinx
- **Current Phase:** Initiation and Development (ready for PDE)
- **Capital Cost Estimate:** \$1.6 B Option 2 to UTSC; or \$2.0 B Option 3 to Malvern (both Class 4 estimates, 2019\$)

See Attachment 4 of 2019.EX4.1 for details.

Toronto's Transit Expansion Program

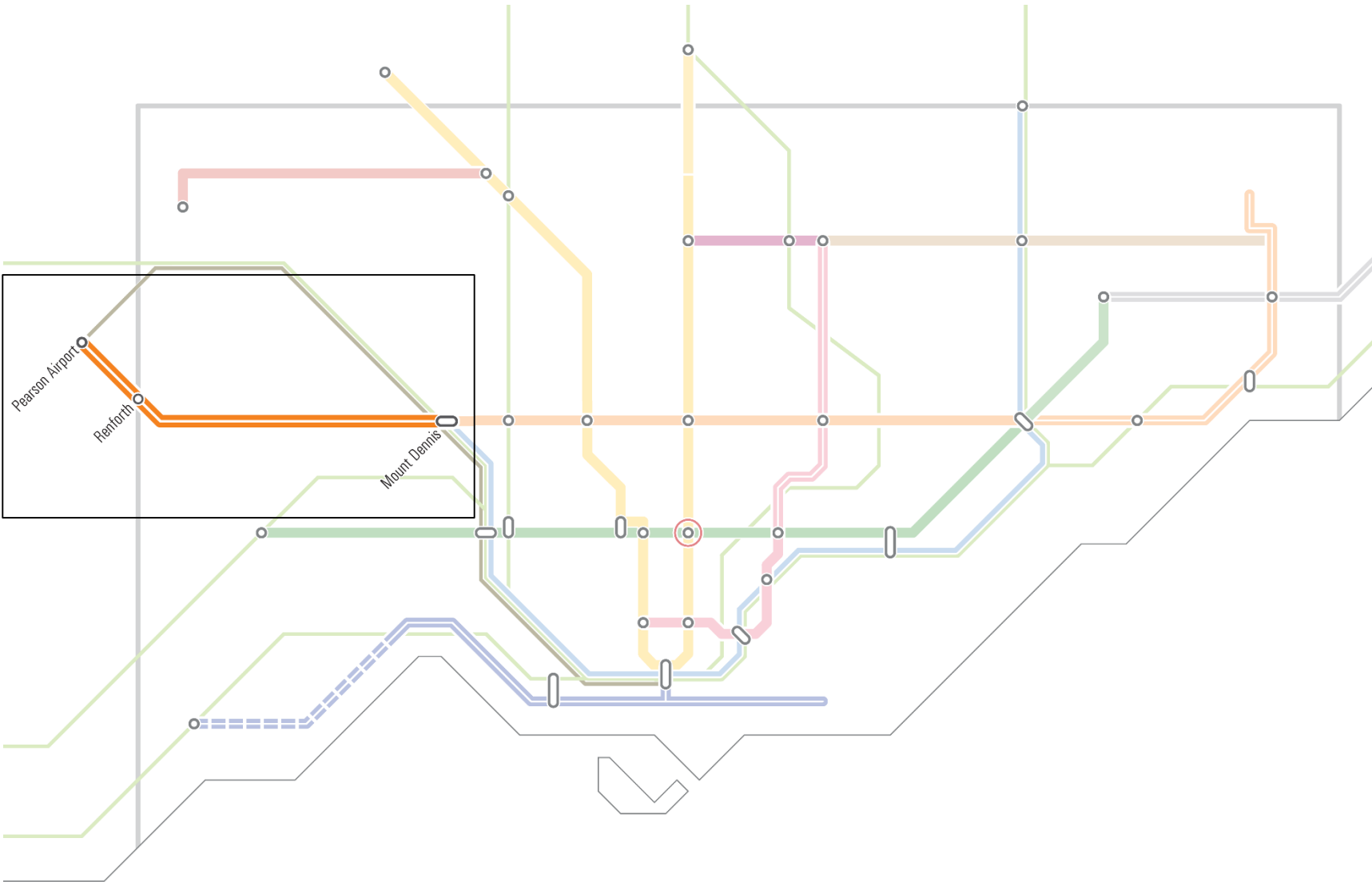
EGLINTON WEST LRT

A western extension of Line 5 (Eglinton Crosstown LRT)

Improves rapid transit connections on Eglinton Avenue; Airport Segment may also provide better access to Pearson Airport and support plans for a transportation hub

- **Asset Owner:** Metrolinx
- **Current Phase:** Initiation and Development
- **Capital Cost Estimate:** \$1.8 B (\$2019) (Toronto Segment Option 1- At Grade LRT; Class 4)

See Attachment 5 of 2019.EX4.1 for details.



Public Transit Infrastructure Fund Phase 2 (PTIF2)

- City of Toronto allocated \$4.897B in federal funding based on ridership; includes prior commitment of \$0.660 B in funding for the Line 2 East Extension (L2EE) project.
- The federal government will contribute up to a maximum of 40% of eligible expenditures
- The Province to contribute a minimum of 33%, or \$4.040 B in new funding; does not include prior commitment of \$1.48B (\$2010) in provincial funding for the L2EE project
- Under 40-33-27 Cost Share Scenario the City is required to contribute 27%, or \$3.305 B

Table 1. Funding Scenario under PTIF2 (40-33-27 Scenario)²

	Funding Share (\$M)	% of Total
Federal	4,896.6	40%
Provincial	4,039.7	33%
City Share	3,305.2	27%
Total	12,241.4	100%

Public Transit Infrastructure Fund Phase 2

- The PTIF 2 program has been designed to advance transit network expansion
- Key federal outcome targets for the program include:
 - Improved **capacity** of public transit infrastructure
 - Improved **quality and/or safety** of existing or future transit systems
 - Improved **access** to a public transit system
- The Province is responsible for identifying and prioritizing eligible projects through engagement with local and regional governments, and for submitting eligible projects to the Federal Government
- Final provincial and municipal cost-matching requirements will be determined through ongoing discussions as part of the Toronto-Ontario Transit Responsibilities Realignment Review (“Upload”)

Key Considerations for PTIF2

City Council Identified PTIF2 Priorities	City Council Direction	Safety and Reliability	Growth and City Building	Current Phase in Project Lifecycle	Cost Estimate Class
Line 2 East Extension	✓		✓	PDE – Complete	Class 3
SmartTrack Stations Program	✓		✓	PDE – Complete	Class 3 ¹
Bloor-Yonge Capacity Improvement		✓	✓	Initiation & Development	Class 5
Relief Line South		✓	✓	PDE	Class 5
WT – Exhibition Loop-Dufferin Loop – Streetcar Connection			✓	PDE	Class 5
WT – Union Station-Queens Quay Link-East Bayfront LRT			✓	Initiation & Development	Class 4
Eglinton East LRT			✓	Initiation & Development	Class 4
Eglinton West LRT			✓	Initiation & Development	Class 4/5

City Council identified projects for Phase 2 PTIF funding in EX20.4 and EX25.1- Listed in table above.

Recommended Priorities for PTIF2

The recommended priorities for the City of Toronto **\$4.89 billion federal** PTIF2 funding allocation:

- **\$0.660 billion** as previously approved by City Council in October 2013 (CC39.5) for the **Line 2 East Extension** project;
- **\$0.585 billion** as previously approved by City Council in April 2018 (EX33.1) for the **SmartTrack Stations Program**;
- **\$3.151 billion** for the **Relief Line South** as described in the October 2018 Environmental Project Report; and
- **\$0.500 billion** for the **Bloor-Yonge Capacity Improvement** project.

Report Back in Q4 2019 Prior to 2020 Budget Process

Staff will report in fall of 2019, **prior to the 2020 Budget process**, on the following:

- Funding and financing strategies for PTIF2 priority projects:
 - **Relief Line South**
 - **Bloor-Yonge Station Capacity Improvement**
- Funding and financing strategies for projects that are not currently contemplated for funding under the PTIF2 program:
 - **Waterfront Transit** –
 - Union Station-Queens Quay Link (PDE phase funding)
 - Exhibition Loop to Dufferin Gate Loop (Procurement and Construction phase funding)
 - **Eglinton East LRT**— (PDE phase funding)
- Outcome of ongoing discussions with the Province on “upload/realignment of transit responsibilities” will inform recommendations.

Summary of Report Recommendations

Public Transit Infrastructure Fund (PTIF2)

- **Rec #1** – PTIF2 Federal Funding Priorities for \$4.89B include:
 - Previously approved Council projects – L2EE (2013), and SmartTrack Stations Program (2018); and
 - recommended priorities for safe and reliable transit system – Relief Line South and Bloor-Yonge Station Capacity Improvement
- **Rec #2** – cost-matching requirements of the Province and the City under PTIF2 to be determined per Upload discussion
- **Rec #3** – authority to enter into agreements

Summary of Report Recommendations

Line 2 East Extension (L2EE) Project

- **Rec #4** - City Council approve \$3.887 B for the one-stop L2EE project and request TTC to proceed with procurement and construction, subject to:
 - The Province providing written support for the project and confirmation of the Province's previous funding commitment by May 15, 2019; and
 - The City finalizing agreements for federal and provincial funding by November 30, 2019.
- **Rec #5** - Subject to fulfillment of the conditions set out in Recommendation 4, City Council amend the Council Approved 2019-2028 Capital Budget and Plan for the L2EE project and approve the project funding plan.
- **Rec #6** – City Council amend Noise By-Law to add L2EE to list of exempt transit projects
- **Rec #7** - Should part a. or b. of recommendation 4 not be met City Council direct staff to report to City Council with an assessment of the cost, schedule, and operational impacts associated with changing the scope and/or delivery model of the L2EE project, and principles to guide future discussions with the Province.

Summary of Report Recommendations

Waterfront Transit - Queens Quay Link and East Bayfront Light Rail Transit

- **Rec #8** - City Council approve the Streetcar Option for the Union Station-Queens Quay Link.
- **Rec #9** - City Council request staff to commence the PDE phase of the Union Station-Queens Quay Link and the extension of the Light Rail Transit to East Bayfront in 2020, and report back to City Council when a Class 3 cost estimate and Level 3 schedule have been developed.

Eglinton East Light Rail Transit

- **Rec #10** - City Council request Metrolinx to work with the City to develop a plan to address:
 - the phasing for the project; first phase to UTSC and second phase to Malvern Centre;
 - the location and construction timing of the Maintenance and Storage Facility;
 - commencing the PDE phase of the project; anddirect City staff to report back to City Council with recommended plan and funding requirements for the City's 2020 budget process.

Summary of Report Recommendations

Eglinton West Light Rail Transit

- **Rec #11** - City Council direct staff to report back on next steps for the Eglinton West LRT once Metrolinx and the GTAA have completed the planning analysis of the full extension to Pearson International Airport.
- **Rec #12** - City Council request City Planning and Transportation Services, in partnership with the Ministry of Transportation, to study potential solutions to existing and future traffic congestion on Eglinton Avenue West and other streets in central Etobicoke and report back by 2020.

General

- **Rec #13** - City Council request the City Manager and the Chief Financial Officer and Treasurer to report prior to the launch of the 2020 Budget process, on funding and financing options for the Relief Line South, Bloor-Yonge Capacity Improvement and the balance of the projects including but not limited to:
 - the preliminary design and engineering phase of Waterfront Transit – Union Station-Queens Quay Link and the extension to East Bayfront; and the Eglinton East LRT; and
 - the procurement and construction phase of the Waterfront Transit – Exhibition Place (Exhibition Loop to Dufferin Gate Loop).

Questions?

Appendix

Total Project Cost Estimates for PTIF2 Priority Projects

Table 2. Total Project Cost Estimates (\$ millions)

Project	Class Estimate ⁵	Total Project Cost	2018 LTD Actuals/PDE	PDE	Procurement and Construction
Line 2 East Extension ¹	3	3,887.5	182.5		3,705.0
SmartTrack Stations Program ²	3	1,491.9	22.0		1,469.9
Bloor-Yonge Capacity Improvements ³	5	1,071.3	4.4	17.6	1,049.3
Relief Line South ⁴	5	7,224.4	15.4	409.7	6,799.3
TOTAL PTIF2 PROJECT		13,675.1	224.2	427.3	13,023.5

Notes:

1. L2EE cost estimates in \$YoE and escalation factors prepared by TTC – does not include lifecycle and operations / maintenance costs. Estimate peer reviewed. See Attachment 2 for details.
2. SmartTrack Stations Program Procurement and Construction costs include a capped contribution of \$1,463 million to Metrolinx. Cost estimate prepared by Metrolinx (see EX33.1).
3. Bloor-Yonge Capacity Improvements cost estimates in \$YoE and escalation factors prepared by TTC – does not include lifecycle and operations / maintenance costs.
4. Relief Line South cost estimates in \$YoE and escalation factors prepared by TTC – does not include lifecycle and operations / maintenance costs.
5. Class 5 Estimates up to 0-2% design, with expected accuracy range of -50% to + 100%. Class 3 Estimates have a design range of 10-40% and accuracy range of -20 to +30%. Class 3 estimates are required for budgeting.

Funding Estimates for PTIF2 Priority Projects

	PTIF2 Program Funding (40-33-27 Scenario)				Other Funding			
Project	Federal	Province	City	Total	Federal	Province	City	Total Funding
Line 2 East Extension ¹	660.0			660.0		1,990.0	1,237.5	3,887.5
SmartTrack Stations Program ²	585.0		884.9	1,469.9	11		11	1,491.9
Bloor-Yonge Capacity	419.7	337.8	313.8	1,071.3				1,071.3
Relief Line South ³	2,719.7	2,666.3	1,413.3	6,799.3	27.5	207.5	190.1	7,224.4
Sub-Total Prior to Provisions	4,384.4	3,004.1	2,612.0	10,000.5	38.5	2,197.5	1,438.6	13,675.1
Bloor-Yonge Provision ⁴	80.7	195.6		276.2				276.2
Relief Line Provision ⁴	431.5	840.0	693.2	1,964.7				1,964.7
Sub-Total Provision	512.1	1,035.6	693.2	2,240.9				2,240.9
Total	4,896.6	4,039.7	3,305.2	12,241.4	38.5	2,197.5	1,438.6	15,915.9
As % Total PTIF2	40%	33%	27%	100%				

Notes:

- Other assumed funding includes Provincial LRT funding (\$1,990M or \$1,480M in 2010\$), City share includes recoverable debt funded from Scarborough Tax Reserve and Development Charges.
- Committed funding includes Federal PTIF1 and City PTIF1 co-payment.
- Committed funding includes Federal PTIF1, City PTIF1 co-payment, and Provincial/Metrolinx Relief Line PDE work; includes \$325 million in added funding to implement a schedule improvement strategy/early work opportunities. The City has identified \$162.5 million; remaining 50% is required from partners.
- Bloor-Yonge provision (26% of costs) and Relief Line provision (29% of costs) are included to maximize federal funding and to account for the fact that each has a Class 5 cost estimate.

Line 2 East Extension Funding Plan

Table 4. Updated L2EE Funding Assumptions (\$ millions)

	2013 Funding Plan	2019 Funding Plan	
Cost allocation			Change
Federal	660	660	0
Provincial	1,990	1,990	0
City share	910	1,237	327
Total estimated cost	3,560	3,887	327
Funding Assumptions of City Share:	Original Assumptions	Updated Assumptions	Additional Debt Supported
Development Charges	165	270	105
SSE Tax Levy (1.6%) Revenue	38 annually	41 annually	55
Cost of Borrowing	4.3%	3.5% ⁽¹⁾	65
SSE Reserve Fund Interest Earnings	0	2 average annually	40
Total			265
Note: (1) While the current cost of borrowing is 3.1%, the above table uses a 15% allowance for higher rates in the future to be conservative.			