



## **Transit Network Expansion Update**

**Date:** February 28, 2023  
**To:** TTC Board  
**From:** Chief Capital Officer

### **Summary**

---

As a leading transit operator carrying 530 million trips annually (pre-pandemic) and backed by more than 100 years of institutional knowledge, the TTC is contributing its considerable expertise to boldly expand the TTC network while centering TTC customers in all of our services.

Working across operations, maintenance, engineering, communications, and strategy disciplines, the TTC and Metrolinx teams are collaboratively developing the expanded service for the transit system of our city: an integrated, accessible, safe transit network seamlessly interfacing with the existing network, and connecting TTC customers with all of the mobility options within the city of Toronto, and to neighbouring municipalities.

The TTC's commitment to transparency and accountability is through timely, accurate and complete reporting. This report is the fifth in a series of Transit Network Expansion reports since February 2021 through which staff provide bi-annual updates on the progress of projects expanding the TTC Network, and that are of key interest to the TTC and its riders.

### **Recommendations**

---

It is recommended that the TTC Board:

1. Receive this report as a general update on transit expansion projects.

### **Financial Summary**

---

The 2023 Operating Budget, approved by the Board on January 9, 2023 and by City Council on February 15, 2023, identified near term annual operating impacts of the Transit Expansion program at \$117.5 million (net) to address net annual operating costs for Line 5, Line 6 and the SRT Bus Replacement Plan. As summarized in Table 1 below, of the total annual net operating impact anticipated by 2024, \$72.2 million is included in the 2023 Operating budget, with the remaining \$45.3 million in required operating funding to be secured through the 2024 Budget process.

**Table 1: Anticipated Operating Impact of Transit Expansion by 2024**

(\$ Millions)	Total Annual Requirement		Change
	2023 Budget	2024 Forecast	2024 vs 2023
<b>Line 5</b>			
Mobilization & Operating Costs	70.5	95.5	25.0
Bus Service Savings		(10.0)	(10.0)
Incremental Revenues	(3.0)	(7.5)	(4.5)
Reserve Draw to Fund One-Time Costs	(7.3)		7.3
<b>Subtotal Line 5</b>	<b>60.2</b>	<b>77.9</b>	<b>17.7</b>
<b>Line 6</b>			
Mobilization & Operating Costs	12.1	37.8	25.7
Bus Service Savings		(7.4)	(7.4)
Incremental Revenues		(2.3)	(2.3)
Reserve Draw to Fund One-Time	(1.6)		1.6
<b>Subtotal Line 6</b>	<b>10.5</b>	<b>28.0</b>	<b>17.5</b>
<b>SRT Bus Replacement Plan</b>			
Bus Replacement Service	2.9	31.1	28.2
SRT Service Savings	(1.4)	(19.6)	(18.2)
<b>Subtotal SRT Bus Replacement Plan</b>	<b>1.5</b>	<b>11.5</b>	<b>10.0</b>
<b>Net City Funding Impact: Transit Expansion and Conversion</b>	<b>72.2</b>	<b>117.5</b>	<b>45.3</b>

## Provincial Priority Subways Program

### *Planning and Development Phase Cost Recovery*

As reported on July 23, 2019, the Province enacted a regulation (O. Reg 248/19) that designates the Scarborough Subway Extension, Yonge North Subway Extension and Relief Line South and North (now Ontario Line) as ‘sole responsibility projects’ of Metrolinx.

Effective August 30, 2019, consultant contracts for these transit expansion projects were reassigned to Metrolinx from the TTC based on the Province’s legislated authority to transfer assets, rights and obligations related to the projects. TTC costs of \$239 million incurred up to August 31, 2019 were funded by the City. Negotiations are ongoing for reimbursement from the Province to the City, as anticipated per the Toronto-Ontario Partnership Agreement entered into in 2019.

### *TTC’s Project Assurance Responsibilities*

The TTC continues to actively work with Metrolinx to identify necessary resources to support the Provincial Priority Subway Program based on the program schedule updates provided by Metrolinx. In 2022, 29 additional positions were approved by Metrolinx providing a total of 65 positions dedicated to the TTC’s project assurance function for the Metrolinx Subway Expansion Program. Additional resource requirements will be reviewed as part of the 2023 Annual Work Plan and subject to final agreement and approval by Metrolinx under the TTC-Metrolinx Resource Agreement for

the Provincial Priority Subway Program. The cost of approved Project Assurance resources are fully funded by Metrolinx. The TTC is actively working with Metrolinx to develop the 2023 Annual Work Plan based on Metrolinx's latest planned program of work for 2023.

### *Service Disruption Policy and the Recovery of Additional Operating Costs*

As construction activities associated with the subway expansion program increase, additional operating costs will be incurred based on additional vehicles required to maintain service levels due to construction delays to operate bus replacement services due to streetcar track and/or subway closures. Work is ongoing between Metrolinx and TTC staff to finalize a policy to govern processes and eligible costs for reimbursement. At this time, the TTC anticipates that service disruption costs will be funded by Metrolinx.

### *Line 3 Bus Replacement Program*

As stated in the April 14, 2022 Board report titled, [Line 3 Bus Replacement Study Final Recommendations](#), it is recommended that parts of the existing Line 3 be converted to a right-of-way (ROW) for bus operation in order to provide customers with the fastest and most reliable bus replacement service. The updated total estimated capital cost for this is \$58.6 million (Class 4 estimate). It includes the construction costs to remove existing track infrastructure and systems for the trains; costs to assemble required property for the busway and bus stop platforms; and costs to install new pavement to allow buses to operate. In addition to the capital costs noted above, the cost to demolish surplus Line 3 infrastructure, including the elevated guideway, following the conversion of a portion of the Line 3 ROW for buses, is estimated to be in the range of \$150 million to \$175 million.

\$37.6 million is approved in the TTC's 2023 to 2032 Capital Budget and Plan for the required infrastructure to support the interim Line 3 Bus Replacement Service, however, the \$58.6 million for the ROW conversion to a busway remains unfunded. The City is currently negotiating the Toronto-Ontario Subway Agreement in Principle (AIP), which addresses the recovery of costs associated with the Scarborough Rapid Transit (SRT), also known as Line 3 Scarborough, and the reconciliation of sunk costs associated with the upload of expansion projects. Through this process, the Province has been requested to assume responsibility for incremental costs of the SRT replacement service. The Province has not committed any funding to date. Staff will report to the TTC Board when the discussions are finalized.

Table 2 summarizes the required construction and estimated capital costs:

**Table 2: Summary of SRT Bus Replacement Capital Costs**

Line 3/SRT Bus Replacement Infrastructure (\$ Millions)	LTD	2023	2024	2025	2026	2027	10-Yr Plan	TOTAL
<b>FUNDED</b>								
Platform Modification at Scarborough Centre and Kennedy Stations	1.2	4.6	8.4				13.0	14.2
Transit Priority Measures	1.0	3.2	3.2				6.4	7.4
Temporary Bus Terminal at Kennedy Station	1.5	6.9	6.6				13.5	15.0
SRT ROW Conversion to Busway	1.0						-	1.0
<b>TOTAL FUNDED</b>	<b>4.7</b>	<b>14.7</b>	<b>18.2</b>	<b>-</b>			<b>32.9</b>	<b>37.6</b>
<b>UNFUNDED</b>								
SRT ROW Conversion to Busway		3.0	10.0	23.0	12.0	10.6	58.6	58.6
<b>TOTAL SRT CAPITAL REQUIREMENT</b>	<b>4.7</b>	<b>17.7</b>	<b>28.2</b>	<b>23.0</b>	<b>12.0</b>	<b>10.6</b>	<b>91.5</b>	<b>96.2</b>

As noted above, an increase in operating costs is anticipated with the SRT Bus Replacement Plan due to the lower carrying capacity of buses as compared to SRT trains, resulting in higher costs on a net basis. With bus replacement service operating on local roads with transit priority measures, additional net operating costs of \$99.5 million for the 2023 to 2030 time period are anticipated. Should capital funding to construct the busway on the SRT ROW be secured, and construction complete by the end of 2025, operating costs for the same time period are expected to be \$22.8 million lower due to lower operator and vehicle requirements once the busway is in operation. In addition to the lower operating costs, converting the Line 3 corridor for bus operation will provide customers with higher-quality service, and reduce travel times when compared to just using regular city streets.

### **City Priority Expansion Projects – Eglinton East LRT and Waterfront East LRT**

#### *Eglinton East LRT (EELRT)*

The Eglinton East LRT project is led by the City of Toronto, in partnership with the TTC, and the TTC has no funds committed to this project.

#### *Waterfront East LRT (WELRT)*

Funds for the Preliminary Design and Engineering (PDE) phase only are included in the TTC's 2023-2032 Capital Budget and Plan for the WELRT project, as approved by the

TTC Board on January 9, 2023 and by City Council on February 15, 2023. The total approved budget for the TTC's current scope of work for the WELRT project is \$27 million, of which approximately \$19.6 million has been committed to date.

The Chief Financial Officer has reviewed this report and agrees with the Financial Summary information.

## **Equity/Accessibility Matters**

---

As a proud leader in providing accessible and reliable public transit, the TTC believes that all customers should enjoy the freedom, independence and flexibility to travel anywhere on its transit system. Expanding the TTC's transit network through this program will reduce travel times and create greater transit equity, contributing to wider access to jobs, education, healthcare, community services and other opportunities. Upon the completion of the projects described in this report, all of the city's Neighbourhood Improvement Areas (NIAs) will be within walking distance or a short bus/streetcar ride to connect to rapid transit.

All new stations, including interchange stations and connections to existing TTC facilities, will be designed to be accessible and in accordance with the Accessibility for Ontarians with Disabilities Act, 2005 (AODA) and the Ontario Building Code. All rapid transit stations will be also designed to provide connectivity with TTC Wheel-Trans, broadening the Family of Services.

As requested by the Board, Metrolinx has committed to conduct meaningful consultation with the TTC's Advisory Committee on Accessible Transit (ACAT) as part of the Project Specific Output Specification (PSOS) review and design review for all projects within the provincial programs. This process began in August 2021 when ACAT's Design Review Subcommittee was consulted on the subway program accessibility requirements to be included in each subway project PSOS, as well as specific requirements and early concept designs for the stations to be built as part of the Ontario Line project. Metrolinx and ACAT met again to review requirements and reference concept designs for the Line 2 East Extension (Scarborough Subway Extension project) and the Line 5 Eglinton West Extension (Eglinton Crosstown West Extension project) in November 2021 and February 2022, respectively. ACAT consultation is expected to continue later in 2023 for the Line 1 Yonge Extension (Yonge North Subway Extension project).

The TTC will continue to ensure ACAT receives briefings on issues of concept of operations and accessibility as the projects progress. The TTC is committed to ensuring ACAT is fully aware and consulted on issues of accessibility, and that the consultation is provided to Metrolinx to help inform planning and delivery.

## **Decision History**

---

The following links contain the detailed transit network expansion updates that were presented to the TTC Board at its meetings on February 10, 2021, September 15, 2021, February 10, 2022 and July 14, 2022, respectively:

[February 10, 2021 Transit Network Expansion Update](#)

[September 15, 2021 Transit Network Expansion Update](#)

[February 10, 2022 Transit Network Expansion Update](#)

[July 14, 2022 Transit Network Expansion Update](#)

At its meeting on April 14, 2022, the TTC Board received a report on the Line 5 Eglinton Train Operating and Funding Agreement (TOFA) and “authorized the Chief Executive Officer of the TTC to enter into and execute the Train Operating and Funding Agreement, and any other necessary agreements, which shall be consistent with the Terms contained in Attachment 1, whereby the final agreement will be subject to terms and conditions acceptable to the TTC General Counsel.”

[April 14, 2022 Line 5 Eglinton – Train Operating and Funding Agreement](#)  
[April 14, 2022 Decision](#)

In December 2020, Toronto City Council directed City staff to advance the Eglinton East LRT (EELRT) project concept as a Line 5 Eglinton easterly extension from Kennedy Station to Malvern Town Centre.

[EX 19.5 Update on the City’s Transit Expansion Projects – Fourth Quarter 2020](#)

In February 2021, the TTC Board received an update report and authorized the Chief Executive Officer, in consultation with the City Manager, City of Toronto, where applicable to negotiate a Master Agreement and/or other applicable Agreements with the Province and/or any other relevant provincial agency for the purposes of the planning, procurement, construction, operations and maintenance of the Subway Program, in accordance with Board and City Council direction and to report back to the Board on the results of such negotiations.

Toronto City Council recently adopted a report at its June 15 and 16, 2022 meeting, with amendments, which is being transmitted to this meeting of the TTC Board for information and is being referred to in this report.

[EX33.2 Advancing City Priority Transit Expansion Projects – Eglinton East Light Rail Transit and Waterfront East Light Rail Transit](#)

As it relates to the TTC, City Council directed the following:

1. Eglinton East Light Rail Transit: The Executive Director, Transit Expansion Office, in consultation with the Chief Vehicles Officer, TTC, to complete an assessment of light rail vehicle options for the Eglinton East Light Rapid Transit distinct-service concept.
2. Waterfront Transit Network: The Executive Director, Transit Expansion Office, to undertake a constructability review of the Union Station to Queens Quay Link and the East Bayfront Light Rapid Transit (the Waterfront East Light Rapid Transit ), in

consultation with the Chief Planner and Executive Director, City Planning, the TTC and Waterfront Toronto, to assess constructability and co-ordination risks with major infrastructure projects in the vicinity of the Waterfront East Light Rapid Transit alignment.

3. Waterfront Transit Network: The Executive Director, Transit Expansion Office, in consultation with the Chief Planner and Executive Director, City Planning, the TTC and Waterfront Toronto, to report back to City Council in concert with reports on the Next Phase of Waterfront Revitalization anticipated in second quarter of 2023 with:
  - a. the recommended alignment and scope of the project based on ongoing work and the review outlined above;
  - b. an updated cost estimate; and
  - c. a funding, financing and implementation strategy, including a phasing plan.

In addition, Toronto City Council recently adopted two reports at its December 15, 2021 meeting, which were transmitted to the February 10, 2022 meeting of the TTC Board for information and are referred to in this report.

[EX28.12 Metrolinx Subways Program – Real Estate Protocol and Land Valuation Principles for Subways and GO Expansion Programs](#)

[EX28.14: Ontario Line Downtown Stations – Temporary Road Closures and Community Impacts](#)

City Council adopted the following recommendations:

1. Requested the Toronto Transit Commission to include, in future reports, information on what is being done to maintain and advance time availability of its surface fleet in the construction area, in particular, streetcars.
2. Directed the Toronto Transit Commission, to increase the availability and efficiency of nearby surface fleets, including streetcars and bus routes, and investigate the feasibility of priority routes, bus-only lanes, and other methods to support and improve public transit.

## **Issue Background**

---

The TTC continues to work with key partners including Metrolinx, Infrastructure Ontario, York Region and key divisions at the City to advance the transit expansion projects outlined in the report that will grow Toronto's transit network in the next decade. As the network operator, the TTC is responsible for customer experience and for a seamless end-to-end customer journey during transit expansion project delivery and once the new transit line opens for service.

Transit expansion programs such as the Provincial Priority Subway Program and Provincial LRT Program are governed by a Toronto-Ontario Governance Framework

which includes an Executive Committee with executive level representation from the TTC, City of Toronto, Metrolinx, Infrastructure Ontario and the Ministry of Transportation. Program and project level steering committees have also been established to provide coordination and oversight of the work. The TTC uses these forums to advance the interests of the TTC in accordance with Board direction.

## Comments

---

### Toronto Rapid Transit Network Expansion

Major expansion and capacity improvements to the TTC network are underway. Key programs and projects are highlighted in Table 6 below:

**Table 6: Rapid Transit Network Expansion Programs and Projects**

Program	Project	TTC Line	Current Phase	Anticipated In-Service
Provincial LRT Program	Eglinton Crosstown	Line 5 Eglinton	Construction	TBD*
	Finch West LRT	Line 6 Finch West	Construction	TBD*
Provincial Priority Subway Program	Ontario Line	Future Line 3	Planning/Procurement /Construction	2030*
	Scarborough Subway Extension	Line 2 Bloor-Danforth	Advance Tunnel Contract: Construction; Stations/Rail/Systems: Awarded November 2022.	2030*
	Yonge North Subway Extension	Line 1 Yonge-University	Advanced Tunnels Contract: Planning Stations/Rail/Systems: Planning Finch Early Works: Awarded September 2022	TBD*



Program	Project	TTC Line	Current Phase	Anticipated In-Service
	Eglinton Crosstown West Extension	Line 5 Eglinton	1st Advance Tunnel Contract: Construction; 2nd Advance Tunnel Contract: Procurement Elevated Guideway Contract: Procurement Stations/Rail/Systems, Planning	2030-2031*
Provincial Subway Program	Line 4 Sheppard East Extension	Line 4	Prepare for Concept Definition	TBD*
Eglinton East LRT Extension		Line 5 Eglinton	Planning	TBD
Waterfront Transit	Waterfront Transit – Waterfront East	Various streetcar routes	Preliminary Design and Engineering	2030-2031
	Waterfront Transit – Exhibition Loop-Dufferin Gate Loop	Various streetcar routes	Preliminary Design Project on hold pending evaluation of Ontario Line impact	TBD
Bus Rapid Transit (BRT)	Durham-Scarborough BRT	Various TTC and regional bus routes	Preliminary Design	TBD
	Dundas BRT	Various TTC and regional bus routes	Concept Definition	TBD

\*Based on schedule provided by Metrolinx

### Provincial LRT Program – Line 5 Eglinton

The TTC continues its operational readiness planning for revenue service, and is in active conversations with Metrolinx to refine the actual opening date. The TTC's operational readiness continues to be on track with hiring and training of the various positions that are required to support the operations of Line 5 Eglinton.

From a training perspective, the TTC has achieved their first major milestone on the mobilization of the line with 23 TTC Instructors having successfully completed the Train-

the-Trainer program on the portion of the line that is available. The TTC is working closely with Crosslinx Transit Solution (CTS) to finalize training for all 23 TTC Instructors on the full alignment when available. Due to the TTC's Instructors in-depth operational knowledge and experience, significant feedback was provided to project partners to improve the readiness of the line and training program for the commencement of Operator training.

From a Testing and Commissioning (T&C) perspective, the TTC continues to work closely with Metrolinx to understand and refine the T&C plan and the TTC's role. Currently, the T&C process used by Crosslinx Transit Solutions (CTS) involves defining sub-system packages and their technical, safety and security requirements. For each of those packages, an Inspection and Test Plan (ITP) is developed, to ensure all the sub-system requirements are implemented, verified and validated. The ITPs are continuously being updated as progress is made toward completion, as defined in a Quality Assurance process developed by CTS. Metrolinx has established a commissioning team to review and approve each of the packages. The commissioning team is actively involved in reviewing the documentation and witnessing testing as it progresses.

Safety requirements are also reviewed by a Metrolinx safety team, which includes a technical safety advisor and an Independent Safety Assessor.

As the ECLRT project progressed in 2023, the TTC's supporting effort to the project increased in order to prepare TTC operating staff for the system's eventual revenue service operation. Part of the effort involved is working collaboratively with Metrolinx and CTS to perform due diligence reviews of testing and commissioning reports and safety documentation to ensure the system's readiness and safety for TTC's instructor and operator training activities. The TTC is also actively engaged in discussions and reviews with all stakeholders of the project.

Through the current negotiation of the Train Operating and Funding Agreement (TOFA), Metrolinx, the TTC and City of Toronto are collaboratively working towards its completion. In September 2022, the TTC and Metrolinx agreed on an "Early Start Agreement" based on the Operator Scope of Services to support ongoing mobilization efforts.

### **Provincial LRT Program – Line 6 Finch West**

The TTC has initiated mobilization efforts to integrate Line 6 Finch West into the TTC network, and is in active conversations with Metrolinx to refine the actual opening date. The TTC has been extensively involved in activities, such as design reviews and operational planning.

The TTC is currently working closely with Metrolinx to ensure the TTC's operational readiness activities are integrated into the overall project schedule developed by Mosaic Transit Group (MTG).

The TTC, City of Toronto and Metrolinx are still negotiating the TOFA for Line 5 Eglinton, which was expected to be finalized in 2022, but now is targeting spring 2023.

Once this Line 5 agreement is final, it will form the basis of the Line 6 Finch West TOFA, which should be finalized in 2023. The TTC anticipates there will be very few modifications since the operating and maintenance responsibilities and requirements are similar for both lines, supporting a consistent service delivery for TTC customers, despite having a different maintainer company. To date, Metrolinx and the TTC have been in conversations to identify potential differences between Line 5 TOFA and Line 6 TOFA.

## **Provincial Priority Subway Program**

In April 2019, the Province of Ontario announced a new priority subway plan that includes four projects, collectively known as the Provincial Priority Subway Program:

- Yonge North Subway Extension (YNSE) project (Line 1 Yonge Extension);
- Scarborough Subway Extension (SSE) project (Line 2 East Extension);
- Ontario Line (OL) project (which will become the new Line 3); and
- Eglinton Crosstown West Extension (ECWE) project (Line 5 Eglinton West Extension).

As the network operator, the TTC must provide a seamless and reliable customer journey. This will include a consistent fare payment experience, as well as wayfinding, and an overall seamless customer experience that is consistent across the TTC network.

Additional program updates since the previous Transit Network Expansion Board report are provided below:

## **Open Works in Progress**

### **Wayfinding and Branding**

The TTC Signage and Wayfinding Standards have been designed to provide the best possible customer experience for TTC customers and meet Accessibility for Ontarians with Disabilities Act, 2005 (AODA) and Ontario Building Code (OBC) requirements. They draw guidance from Canadian Standards Association (CSA) and International Organization for Standardization (ISO) guidelines, and incorporate existing TTC operational requirements while anticipating the requirements for future expansion projects. Since 2012, the TTC has been implementing one consistent standard across the entire TTC network.

These Standards have been made available to expansion project design teams under the guidance of Metrolinx. Their delivery of future transit expansion to the TTC system must provide an optimum customer experience that is consistent throughout the network. The Standards have been designed with this objective in mind and TTC staff will continue to support Metrolinx, as required, to reach this goal, and to ensure that the provincially funded extensions and expansions to the TTC transit network have wayfinding and branding that is consistent with the rest of the TTC system.

In particular, TTC staff are working to get a commitment from Metrolinx staff to ensure that TTC logos, wayfinding and signage will be featured appropriately on provincially owned stations in the TTC network to ensure seamless and safe operation. The intent is that an interim solution will be agreed to for Line 5 Eglinton in time for the opening of this line, and with a final agreed solution to be applied to Line 6 Finch West and to the four provincial subway projects listed above.

### **Comments on Innovation and Sustainability**

The TTC's Innovation and Sustainability Group is working closely with Metrolinx and the City to identify future-proofing requirements are included in the design for all the new build Transit Expansion projects. Specifically, requirements include provisions for eBus electrification infrastructure that would enable on-route charging and/or back-up charging locations at a minimum. More broadly, the City's TransformTO Net Zero Strategy has been cited as a source for requirements that will reduce community-wide greenhouse gas emissions in Toronto to net zero by 2040.

The TTC will continue to coordinate with Metrolinx and other peer agencies to ensure that innovation and sustainability initiatives will be considered for all Transit Expansion projects.

### **Public Washrooms**

As a proud leader in providing accessible and reliable public transit, the TTC is committed to continuously improve the customer experience across the TTC's transit network. This includes that all new stations, including interchange stations and connections to existing TTC stations, will be designed to include public washrooms for TTC customers. The TTC is working closely with Metrolinx to ensure this requirement is adopted for the provincial subway program.

### **Service Level**

The TTC is collaborating with Metrolinx to ensure that service levels for the four provincial subway projects will be integrated with the existing legacy subway network. The responsibility for establishing service levels will be defined in accordance with the principles to be set out in the Toronto-Ontario Subway Agreement in Principle (AIP) that is currently under negotiation between the City of Toronto and the Province.

### **Operations and Maintenance Roles and Responsibilities**

The TTC and Metrolinx are engaged at the working group level to define roles and responsibilities relevant to the performance of maintenance and operations functions of the Subway Program. The outputs of this work will inform further AIP negotiations between the City and the Province. TTC staff will also report to the Board in the fall of 2023.

Based on work to date, the TTC will operate and maintain the infrastructure, and fleet for the SSE and YNSE. The TTC's roles and responsibilities for ECWE is expected to be consistent with Line 5 Eglinton. For the Ontario Line, discussions on Operations and

Maintenance roles and responsibilities are currently taking place at the working group level between the TTC and Metrolinx within the transit expansion governance framework.

### **Line 3 Bus Replacement Program**

A TTC priority project is the Line 3 Bus Replacement for Line 3 Scarborough (SRT). On February 10, 2021, the TTC Board approved ending train service on Line 3 in 2023 and directed staff to develop a plan to replace the line with interim bus service until the Line 2 East Extension (Scarborough Subway Extension), being delivered by the Province, is opened in 2030.

The TTC Board in April 2022 through the report, [Line 3 Bus Replacement Study Update](#), approved the recommendation for an interim bus service that commences in 2023, with parts of the existing Line 3 right-of-way be converted for dedicated bus operation in order to provide customers with the quickest and most reliable service. Customers would ride buses that would operate in the exclusive right-of-way between Kennedy Station and Ellesmere Station, and then travel on Ellesmere Road and Brimley Road to connect to Scarborough Centre Station. The associated capital projects needed to support the closure of Line 3 Scarborough (SRT) and the replacement bus service will require approximately \$58.6 million in additional funding between 2023 and 2025, including construction of a busway on a dedicated right of way. Assuming the bus way is funded and built by the end of 2025, a further \$76.7 million will be required to fund operating costs between 2023 and 2030 to provide bus service on this corridor until the Line 2 East Extension is operational in 2030.

In addition to the operating and capital budget noted above, it has been identified that additional temporary easements will be required to support the SRT bus conversion, and furthermore additional funding may be required for the property acquisition of these additional easements. These easements are required for temporary construction access, bus platforms and lighting, amongst other requirements. Funding is required to advance the busway conversion, and the property acquisition process will need to be started with City Real Estate Management in consultation with the local community and area councillors' offices. It has also been identified that the cost to demolish surplus Line 3 infrastructure, including the elevated guideway, following the conversion of a portion of the Line 3 ROW for buses is estimated to be in the range of \$150 million to \$175 million.

In April 2022, the TTC Board directed TTC staff report back to the Board in July 2022 with an update on the progress of negotiations between the City of Toronto and the Province of Ontario to fund the service replacement costs of the Line 3 project, including the busway conversion and surplus infrastructure decommissioning. As reported, the City of Toronto's Transit Expansion Office is currently negotiating a new Toronto-Ontario Subway Agreement in Principle (AIP), which addresses a range of outstanding matters from the 2019 Toronto-Ontario Preliminary Agreement. The scope of the AIP includes the recovery of costs associated with the SRT and reconciliation of sunk costs associated with the upload of expansion projects. Through this process, the Province has been requested to assume responsibility for incremental costs of the SRT replacement service.

Discussions on the AIP has recently resumed between the parties, with the City's Transit Expansion Office to report to City Council in the new term of Council in 2023. TTC staff have identified the funding need for the SRT as a financial pressure for 2023, and will continue to work with the City to secure the required funding for the project.

There is yet to be a commitment from the Province to fund the full requirements of this project. Funding is required in order to advance the busway conversion to detailed design and construction. This part of the project is currently on hold pending further funding.

## **Provincial Priority Subway Program Status Updates**

### **Ontario Line (OL) Updates**

#### *Queen Streetcar Diversions*

The construction at Queen Station for the Ontario Line will require the long-term closure of Queen Street, between Bay Street and Yonge Street, and between Yonge Street and Victoria Street. In order to minimize the inconvenience to customers, TTC, City and Metrolinx staff are working collaboratively to restore streetcar tracks southbound on York Street (between Queen Street and Adelaide Street) and eastbound on Adelaide Street (between Charlotte Street and Victoria Street). This will allow the TTC to operate a diversion for customers that is as close to Queen Street as possible, will not require the need for long-term shuttle buses, and will provide necessary resiliency for streetcar service on King Street. The diversion for the streetcar service on Queen will be westbound via Church, Richmond, York to Queen; and eastbound via York, Adelaide, Church to Queen on the new restored streetcar tracks.

The restoration of all the required infrastructure will be funded by Metrolinx, as reported to the Board in the [February 10, 2022 Transit Network Expansion Update Report](#).

The TTC committed to deliver the first part of this project, the tracks on Adelaide Street from Charlotte Street to York Street. This track work was substantially completed in late 2022. The TTC is still refining the detailed design of the infrastructure with the City and Metrolinx, including elements related to utility relocation, stop locations, and streetscape and traffic signal design. Construction on the remaining portion of the work was to start in Q2 2022. However, the amount and complexity of utility conflicts and relocations that have been identified through site surveys has surpassed previous expectations and has delayed the start of the construction of the streetcar tracks for the diversion. Currently, the TTC, Metrolinx, City of Toronto and various utility owners are working very closely to resolve all of the utility conflicts and relocations as expediently as possible. Metrolinx has identified that the potential delay to complete the streetcar detour work will result in approximately 20 months of shuttle bus service commencing in early May 2023. The TTC is still working closely with Metrolinx and the City on exploring options to optimize the construction schedule of the Adelaide civil and streetcar track construction work to reduce the duration of shuttle bus service.

## *Lakeshore East Joint Corridor*

Metrolinx will be awarding an early works contract in Q1 2023. The early works project involves the expansion of the existing Metrolinx (MX) Lakeshore East rail corridor. The project includes the detailed design of three additional tracks, one additional GO track and two Ontario Line tracks, bridge reconstruction at Queen Street East and Gerrard Street East as well as other bridges along the corridor. Prior to award of this early works contract, the TTC is working closely with Metrolinx to undertake the permanent relocation of existing aerial Traction Power Cable (TPC) to underground, including construction of a new duct bank and two chambers at Queen Street Bridge, connection points, post connections and other work derived from the TPC relocation as well as permanent pole relocations at Queen Street Bridge.

After award of the early works contract, the TTC will be required to assist Metrolinx and their early works contractor with removal, reinstatement and temporary and permanent support of the Overhead Contact System (OCS) cables to facilitate bridge works at Queen Street Bridge. This work will include the installation of new bridge mount for OCS cables to new bridge on Queen Street. Two temporary TTC pole relocations and removal of existing poles at Gerrard Street Bridge will also be required.

The Lakeshore East Joint Corridor related work described above will require periodic short-term and extended shut-downs of the Queen East streetcar tracks. Bus replacement services will be required during the periods when streetcar tracks are non-operational. Co-ordination of the replacement bus service is currently ongoing between the City, Metrolinx and the TTC.

## **Scarborough Subway Extension (SSE) Updates**

### *Kennedy Station Works*

Cable Relocation work east of Kennedy Station platform was 100% completed in December 2022. This work included the relocation of power, communication and signal cables from the east end of the Kennedy Tail Tracks. The relocated assets consisting of existing suspended cables, fire extinguisher cabinet, signal lights and signalling cabinet etc. that were relocated to the south wall of the Box Structure.

As part of the Kennedy Enabling Work (KEW) under the Scarborough Subway Extension (SSE) Project, a new West Ventilation Fan Plant (WVFP) will be added to the west of the Kennedy Station above the existing Line 2 tunnel structure. Early works to relocate the existing infrastructure conflicts is anticipated to commence Q2 2023.

### *Advanced Tunnelling Work*

The tunnel boring machine (TBM) was launched on January 16, 2023 from the launch shaft at Sheppard/McCowan, and the tunnelling work is anticipated to take approximately two years to complete.

## *Station Rail Systems (SRS) Work*

The TTC is working closely with Metrolinx and the SRS Contract Development Partner.

### *Station Planning*

The TTC, City of Toronto, York Region and Durham Region are working with Metrolinx to determine appropriately sized bus terminals and on-street bus connections at the future Scarborough Centre and Sheppard-McCowan stations.

Scarborough Centre: While progress has been steadily made to advance the planning and design of the bus terminal, there are still some gaps with aligning the interests of all stakeholders, including Metrolinx, the City of Toronto, and Infrastructure Ontario. In particular, the TTC's requirements on the number of bus platforms to serve customers, and improving the customer experience, have not been fully satisfied. There are planned workshops by Metrolinx to resolve these issues.

Sheppard-McCowan: The TTC worked with YRT to include their services in the future Sheppard-McCowan bus terminal, which will now house TTC, DRT, and YRT. The terminal is sized appropriately to accommodate the 2031 service plan. Metrolinx recently shared a proposal to convert the planned fare-paid terminal into a non-fare paid terminal. TTC has stated the desired position to keep the terminal fare-paid to provide the optimal integrated customer experience, and is awaiting Metrolinx's response.

## **Yonge North Subway Extension (YNSE) Updates**

### *Finch Early Works*

The Finch Early Works Design-Bid-Build contract was awarded by Metrolinx in September 2022. Construction started in February 2023. TTC personnel will provide support within the Finch Traction Power Substation (TPSS), within Finch Station and along the Finch tail tracks throughout construction.

### *Station Planning*

In April 2021, the Province announced that the Line 1 Yonge North Extension would have three confirmed stations (Steeles, Bridge and High Tech) with one 'Neighbourhood Station' at Cummer-Drewry, Clark or Royal Orchard. In July 2021, the Province confirmed Clark as the fourth station and indicated they would work with municipalities to include additional potential stations at Cummer-Drewry and Royal Orchard. In April 2022, the Province announced the addition of Royal Orchard Station to the project. At this time, the five confirmed stations are: Steeles, Clark, Royal Orchard, Bridge and High Tech.

The City and the TTC continue to explore alternatives with the Province and Metrolinx to understand the costs of a potential station at Cummer-Drewry. Metrolinx has scheduled tentative planning and design workshops for Cummer-Drewry Station in the event it is added to the Yonge North Subway Extension now or in future. The TTC continues to believe that Cummer-Drewry would be an appropriate addition to the transit network in



Toronto, and would provide important additional rapid transit connections for existing and future TTC customers.

The TTC, City of Toronto, York Region and the cities of Markham and Vaughan are working with Metrolinx to determine an appropriately sized bus terminal and on-street bus connections at Steeles Station and protect for future rapid transit services on Steeles Avenue. The TTC forecasts this will be a busy bus terminal with high volumes of customers transferring between the surface bus network and the new subway. It is critical to design this terminal, and on-street facilities, to meet future demand to ensure customers have a seamless, accessible, safe and convenient experience. In particular, this means designing on-street bus facilities to support current operations and protect for future operations along the Steeles corridor, which will likely include a future BRT service. For the Steeles Avenue bus routes, the City of Toronto, York Region, the cities of Markham and Vaughan, and TTC staff have informed Metrolinx of their preference to include centre median bus platforms into the project scope to better connect with the high volume of Steeles Avenue buses. Having appropriate on-street facilities will also reduce the number of bays needed at the off-street bus terminal since bus routes could serve on-street instead of needing to loop into a bus terminal. It is the position of TTC staff that the centre median bus platform is a proven design to best meet customer demand and be compatible with the high volume of buses servicing Steeles.

### **Eglinton Crosstown West Extension (ECWE) Updates**

#### *Advanced Tunnelling Work*

The first tunnel boring machine (TBM) was launched in April 2022 from the launch shaft, and the second TBM was launched in August 2022.

### **Provincial Subway Program: 12 Months Major Milestones**

<b>Milestone Description</b>	<b>Completed</b>	<b>Upcoming</b>
<b>Ontario Line</b>		
OL Early Work Contracts (Exhibition) Award	November 2021	
OL Delivery Partner Contract Award	November 2021	
OL South Civil and RSSOM RFP award	September 2022	
OL Queen Street Closure Construction Start		May 2023
OL Joint Corridor Early Work Contract Award		March 2023

<b>Milestone Description</b>	<b>Completed</b>	<b>Upcoming</b>
OL North Civil and Stations RFP Close		February 2024
<b>Scarborough Subway Extension</b>		
<b>SSE – Advance Tunnel Contract</b>		
SSE Advance Tunnel Contract Award	May 2021	
SSE TBM Launch Shaft Ground Break	June 2021	
TBM delivery on-site	January 2022	
LS1 Construction Complete	July 2022	
TBM and LS1 Ready to Launch	January 2023	
LS2 Site Handover and Start of Mobilization	August 2022	
LS2 Construction Complete		September 2024
<b>SSE – Station, Rail, and Systems (SRSCo) Contract</b>		
Issue SSE Station, Rail, Systems RFQ	September 2021	
SSE Station, Rail, Systems RFQ Close	November 2021	
Issue SSE Station, Rail, Systems RFP	February 2022	
SSE Station, Rail, Systems RFP Close	July 2022	
SRS-Development Phase Start	November 2022	
<b>Yonge North Subway Extension</b>		
<b>YNSE – Finch Early Works (*FEW)</b>		
Close FEW RFQ	April 2022	
Issue FEW RFP	April 2022	
Close FEW RFP	June 2022	

<b>Milestone Description</b>	<b>Completed</b>	<b>Upcoming</b>
Sign FEW PTAC Agreement	May 2022	
FEW Contract Award	September 2022	
FEW Site Mobilization	January 2023	
<b>YNSE – Advanced Tunnel Contract (ATYNSE)</b>		
Issue Advance Tunnel RFQ		Q1 2023
<b>Eglinton Crosstown West Extension</b>		
<b>Advance Tunnel 1 (ECWEATC1)</b>		
ECWE 1st Advance Tunnel Contract Award	May 2021	
Construction started	April 2022	
<b>Advance Tunnel 2 (ECWEATC2)</b>		
RFP Issued	April 2022	
Contract Award		February 2023
<b>Elevated Guideway (ECWEEGW)</b>		
RFP Issued	April 2022	
<b>Stations, Rail and Systems (ECWESRS)</b>		
RCD Package (Rev 2)	April 2022	
RFQ Issue		Winter 2023

## **City Priority Transit Projects**

### **Waterfront Transit – Waterfront East LRT**

The Waterfront East LRT project is one of the City’s priority transit projects. The project will expand the streetcar network in a dedicated right-of-way from Union Station, along Queens Quay East to Cherry Street, to serve the growing East Bayfront and Port Lands neighbourhoods. The TTC, City and Waterfront Toronto have advanced the design for the project to a draft 30% preliminary design and, in parallel, continue to undertake a value engineering exercise to inform design refinements and an updated cost estimate.

In order to mitigate and manage co-ordination risks with future construction for the Waterfront East LRT project, and other major infrastructure projects in the same vicinity, the City has commenced a constructability review. This will look at the schedule and scope for projects, such as the Ontario Line, GO Expansion On-Corridor works and the

Gardiner Expressway Rehabilitation, to assess construction co-ordination risks and develop mitigation strategies. The City is also developing a phasing plan for the project and recommendations to refine the project scope as required.

This constructability review will enable the City, the TTC, and Waterfront Toronto to report back to City Council in Q2 2023 in concert with further reporting on the Next Phase of Waterfront Revitalization. This report will include any recommended scope changes as required, an updated cost estimate and funding strategy, and an implementation plan that considers options to phase the delivery of the project to mitigate construction co-ordination risks. There will be a WELRT project status update report to the TTC Board prior to the Q2 2023 City Council report.

## **Eglinton East LRT**

In December 2020, (<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.EX19.5>), City Council directed City staff to advance the Eglinton East LRT (EELRT) project concept as a Line 5 Eglinton easterly extension from Kennedy Station to Malvern Town Centre.

In February 2022, (<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2022.MM39.8>), City Council further directed City staff to undertake a constructability exercise to resolve alignment issues at Kennedy Station, evaluate the suitability of a Maintenance and Storage Facility (MSF) at the Metrolinx-owned Conlins site, and work with Metrolinx to protect for higher-order transit connections at the future station at Sheppard-McCowan on the Line 2 East Extension (L2EE). This resulting analysis, undertaken by City staff and consultants, revealed significant issues with the interface at Kennedy Station between the EELRT and L2EE.

Through this work, City staff have concluded that there is no feasible solution at Kennedy Station to continue with a through-service alignment. The key challenge is that the EELRT tunnel box would rest directly on top of the L2EE bored tunnel with less than two metres of separation estimated between the two tunnels. Since the L2EE bored tunnel has not been designed to support the load of an LRT tunnel above it, the structural integrity concerns are significant. Since a redesign of the L2EE tunnel is not feasible, a through-service alignment cannot be implemented. As an alternative, City staff have identified a distinct-service concept where the EELRT would operate as a standalone line.

A standalone line for EELRT (a new “Line 7 Eglinton East”) creates new opportunities and potential benefits, including cost savings, a shorter construction duration, reduced property impacts, and design flexibility by avoiding dependency on Line 5 Eglinton vehicle, operations and maintenance requirements.

Further analysis is required to confirm potential benefits and refine the distinct-service concept. The TTC will work with the City to advance the Transit Project Assessment Process (TPAP) and 10% design for the distinct-service concept from Kennedy Station to Malvern Town Centre, with an at-grade connection at Kennedy Station, and the

Sheppard Avenue segment from Neilson Road to McCowan Road. An updated Initial Business Case and Class 4 cost estimate will be provided to City Council in Q3 2023.

## **RapidTO**

Over the years, the TTC has been involved with municipal and provincial partners in planning for bus rapid transit (BRT) schemes that would upgrade bus infrastructure to increase the reliability and speed on some of the busiest surface transit routes in the TTC network, and to better connect regional transit systems to the TTC system.

The TTC's 5-Year Service Plan & 10-Year Outlook (2020-2024) identified the need to explore enhanced bus lanes on five roadways in the city of Toronto. The TTC is also working with the City of Toronto to develop a wider program to identify a series of priority roadways and study the application of different options of transit priority solutions over the next 10 years. That wider program, called RapidTO: Bus & Streetcar Priority, has completed Phase 2 of public and stakeholder consultations and a report on the findings of Phase 2 will be presented to City Council in early 2023. Upon approval by City Council, the TTC will work with the City on Phase 3 (2022-2031<sup>\*</sup>), which includes undertaking roadway-specific studies to determine the feasibility, benefits and impacts of various transit priority measures, similar to what is being undertaken for the RapidTO: Jane Street.

Meanwhile, the TTC and City have jointly been working to advance the roadways identified in the 5-Year Service Plan & 10-Year Outlook. The first RapidTO roadway, Eglinton Avenue East/Kingston Road/Morningside Avenue, introduced transit priority lanes in 2020. The traffic and transit data monitoring on the corridor has shown improvements to transit travel times (up to five minutes in the p.m. peak compared to the week prior to launching the lanes) and ridership (boardings are outperforming system-wide bus boardings) with minimal impact to traffic. Additionally, work is underway on the preliminary designs and traffic models for various types of transit priority treatments for Jane Street, between Steeles Avenue and Eglinton Avenue, the second RapidTO roadway. In 2023, the TTC and City staff will conduct Step 1 public and stakeholder consultation to present different transit priority options and better understand the Jane Street roadway user needs, challenges and priorities. Following the incorporation of public feedback, staff will conduct Step 2 public and stakeholder consultation on the preferred design option. At the conclusion of Step 2, staff will present the recommended design and implementation plan to the TTC Board and City Council for approval. Additionally, the TTC and City will begin work to advance analysis of RapidTO: Steeles and RapidTO: Dufferin.

## **Durham-Scarborough BRT**

The Durham-Scarborough Bus Rapid Transit (DSBRT) is a Metrolinx-led project that will provide approximately 36 kilometres of dedicated transit infrastructure that will connect Oshawa, Whitby, Ajax, Pickering and Toronto. This rapid transit corridor would be used by TTC buses as well as buses from Durham Regional Transit (DRT) and GO Transit. There are 49 DSBRT stops planned along the corridor, with 14 stops located within the

---

*\* Includes RapidTO Projects currently underway.*

city of Toronto. These stops will provide connections to Toronto destinations, such as Line 2 East Extension at Scarborough Centre Station, ALDGate Centre, Scarborough Centenary and University of Toronto Scarborough Campus. Bus services will generally operate in the centre of the road with centre-median bus platforms at stops – where this cannot be accommodated, bus services will operate on the side of the road and serve curbside stops. During the peak periods, the combined bus service on the DSBRT in Toronto, between the TTC, DRT and GO Transit, will have service every two minutes in each direction. TTC customers and TTC buses will make up the majority of customers using the BRT facility in Toronto.

The project completed a Transit Project Assessment Process (TPAP) in January 20, 2022, and is now advancing to preliminary design business case. Through the design process, a number of outstanding challenges that require additional analysis and mitigation measures will be addressed, such as impacts on goods movement operations along the corridor, particularly around Markham Road, and impacts to multi-modal traffic operations in the residential neighbourhood areas on Ellesmere Road between Military Trail and Kingston Road.

## **Dundas BRT**

The Dundas Bus Rapid Transit (BRT) project is a Metrolinx-led project that will provide approximately 48 kilometres of dedicated transit infrastructure that will connect Hamilton, Burlington, Oakville, Mississauga and Toronto. The infrastructure will connect McMaster University in Hamilton and the Kipling Transit Hub in Toronto. This rapid transit corridor would be used by TTC buses, while in Toronto, as well as buses from other regional services.

Metrolinx is currently advancing the project through the Preliminary Design Business Case, which will confirm the service concepts, define the required infrastructure to support the service concept at the preliminary design stage.

## **Next Steps**

The TTC continues to work collaboratively with partners to advance the transit expansion projects outlined in this report.

Staff will continue to report to the Board on progress of the transit expansion activities with a program update in fall 2023.

## **Contact**

---

Yan He, Project Director – Transit Expansion Assurance  
416-590-6888  
yan.he@ttc.ca

**Signature**

---

Gary Downie  
Chief Capital Officer