

Scarborough Busway – On-Street Measures to Support Busway Operations

Date: March 18, 2025

To: Scarborough Community Council

From: Director, Planning, Design and Management, Transportation Services

Wards: Ward 21 – Scarborough Centre

SUMMARY

As TTC operates transit service on Eglinton Avenue East (north-west branch) and Ellesmere Road, City Council approval of this report is required.

At the direction of City Council, following the implementation of Transit Priority Measures to Support Scarborough Rapid Transit (SRT) Bus Replacement in 2023, the Toronto Transit Commission (TTC) has continued to advance the design for the conversion of the former SRT right-of-way (ROW) between Kennedy Station and Ellesmere Station, into a Scarborough Busway.

To support the implementation of the future Busway, Transportation Services is requesting approval, on behalf of the TTC, to implement changes to various roadways in proximity to the proposed Busway.

The proposal includes:

- The installation of a traffic signal at the new intersection of Eglinton Avenue East (north-west branch) and the future Scarborough Busway;
- A road alteration to widen the section of Eglinton Avenue East (north-west branch) in the immediate proximity of the existing TTC Line 2 Kennedy Station, in order to provide priority bus lanes between Kennedy Station and the future Scarborough Busway; and
- The extension of the existing Ellesmere Road bus lanes further west to connect to Ellesmere Road (north-west branch).

The proposed modifications would be in place to coincide with the opening of the Busway, which is currently projected for 2027. The modifications to the intersection of Eglinton Avenue East (north-west branch) and the Scarborough Busway would be completed with the construction of the Busway. The supporting pavement markings on Ellesmere Road would be updated in advance of the opening of the Busway.

RECOMMENDATIONS

The Director, Planning, Design and Management, Transportation Services recommends that:

1. City Council approve the road alterations on Eglinton Avenue East (north-west branch), generally as shown in Attachment 1, dated March 2025, attached to the report from the Director, Planning, Design and Management, Transportation Services, dated March 18, 2025.
2. City Council authorize the installation of traffic control signals at the intersection of Eglinton Avenue East (north-west branch) and a point approximately 170 metres east and north of Transway Crescent (Scarborough Busway).
3. City Council designate the easterly northbound lane on Eglinton Avenue East (north-west branch) between a point approximately 170 metres east and north of Transway Crescent (Scarborough Busway) and a point 25 metres further south as a reserved lane for public transit vehicles at all times.
4. City Council designate the westerly northbound lane on Eglinton Avenue East (north-west branch) between a point approximately 170 metres east and north of Transway Crescent (Scarborough Busway) and a point 25 metres further south for left turns only at all times.
5. City Council designate the easterly northbound lane on Eglinton Avenue East (north-west branch) between a point approximately 170 metres east and north of Transway Crescent (Scarborough Busway) and a point 25 metres further south for right-turns only at all times.
6. City Council prohibit northbound right-turns at all times on Eglinton Avenue East (north-west branch) at a point approximately 170 metres east and north of Transway Crescent (Scarborough Busway), buses excepted.
7. City Council prohibit eastbound right-turns when the traffic signal shows red at the intersection of Eglinton Avenue East (north-west branch) and a point approximately 170 metres east and north of Transway Crescent (Scarborough Busway).
8. City Council designate the easterly southbound lane on Eglinton Avenue East (north-west branch) between a point approximately 170 metres east and north of Transway Crescent (Scarborough Busway) and a point 25 metres further south as a reserved lane for public transit vehicles at all times.
9. City Council designate the westerly southbound lane on Eglinton Avenue East (north-west branch) between a point approximately 170 metres east and north of Transway Crescent (Scarborough Busway) and a point 25 metres further south for right-turns only at all times.

10. City Council amend the existing reserved lane designation for the northernly westbound lane on Ellesmere Road between Brimley Road and a point 100 metres west of Midland Avenue for public transit vehicles and bicycles at all times, to be in effect between Brimley Road and a point 200 metres east of Kennedy Road.

FINANCIAL IMPACT

All costs associated with the new intersection, traffic signals, and localized widening are included in the TTC's 2025-2034 Capital Budget and Plan under the Scarborough Subway Extension SRT Bus Replacement Infrastructure project. Funds for the priority bus lane extension on Ellesmere Road are included in the TTC's 2025-2034 Capital Budget and Plan under program 9.2 Service Planning, Transit Priority Measures.

DECISION HISTORY

In May 2023, City Council adopted the Transit Priority Measures to Support Scarborough SRT Bus Replacement. As part of the approval for the installation of on-street transit priority measures to City Council on May 10, 11, and 12, 2023 City Council directed the TTC to complete the design work for the Transit Busway conversion.

[Agenda Item History - Item - 2023.EX4.10.](#)

COMMENTS

Background

The Scarborough Subway Extension (SSE) (Line 2 East Extension) is planned to ultimately replace the Line 3 SRT service in 2030. In May 2023, City Council adopted the Transit Priority Measures to Support Scarborough SRT Bus Replacement. The Line 3 SRT had surpassed its life expectancy and was planned to be decommissioned by Q4 2023. In August 2023, the TTC announced that the closure from the July 24, 2023 derailment would be permanent, requiring the interim bus service plan to begin earlier than anticipated. The on-street measures were then implemented in phases during Q3 and Q4 of 2023.

At the direction of City Council, following the implementation of Transit Priority Measures to Support Scarborough Rapid Transit (SRT) Bus Replacement in 2023, the Toronto Transit Commission (TTC) has continued to advance the design for the conversion of the former SRT right-of-way (ROW) between Kennedy Station and Ellesmere Station, into a Scarborough Busway. The tender for the Busway contract was issued on February 21, 2025, with award and construction of the Busway to start in 2025.

The Scarborough Busway will connect Kennedy Station to Scarborough Centre Station using the Line 3 ROW from Kennedy Station to Ellesmere Station. At Ellesmere Station,

the bus service will use the existing priority bus lanes and improvements to access Scarborough Centre Station via Ellesmere Road and Brimley Road to Triton Road. The replacement service will serve stops at Kennedy Station, a stop on the Busway at Tara Avenue, a stop south of Lawrence East Station, and Ellesmere Station. Along the existing priority bus lanes, the bus service is planned to stop at Brimley Road before continuing on to Scarborough Centre Station. The Busway and the on-street section of the replacement bus service can be seen in Figure 1.

Line 3 SRT and connecting bus routes serve numerous Neighbourhood Improvements Areas (NIAs) and equity-deserving groups in Scarborough. The future Busway will maintain frequent service to NIAs and continue to serve equity-deserving groups. The express bus service using the Busway will make it more convenient to customers by extending existing bus routes beyond Scarborough Centre Station to Kennedy Station. It will provide more direct service and minimize transfer for most customers. The recommendations within this report have the potential to directly benefit four of eight NIAs within Scarborough through improved bus service.

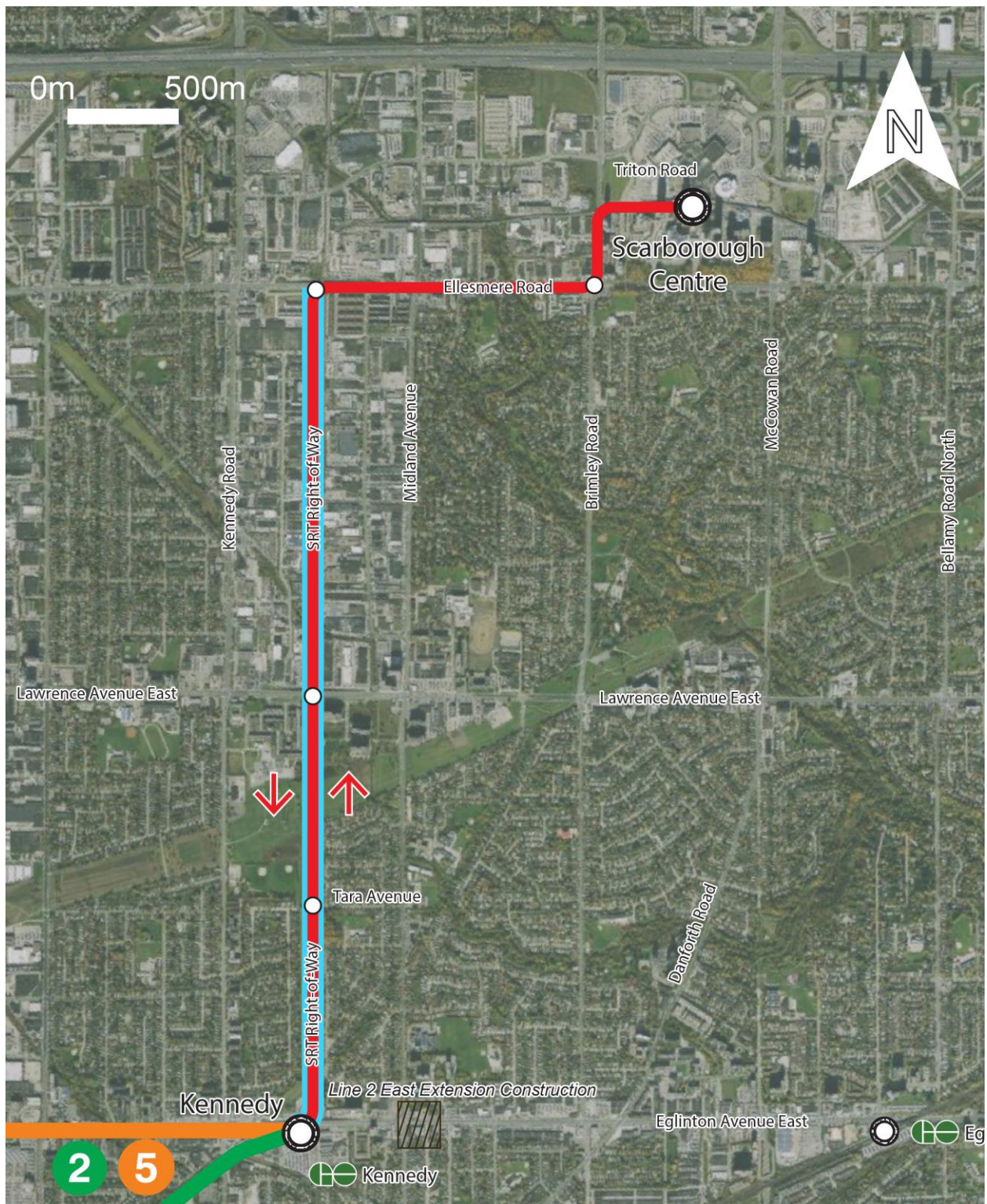


Figure 1. Bus Replacement Service on Dedicated Busway

Existing Conditions

Eglinton Avenue East (north-west branch)

Eglinton Avenue East (north-west branch) is a two-lane service road that runs under Eglinton Avenue East to the east of the intersection of Eglinton Avenue East and Kennedy Road. Eglinton Avenue East (north-west branch) is characterized by the following conditions:

- It operates two-way traffic on a pavement width of approximately 8.5-11 metres along its length;
- The speed limit is 50 km/h, consistent with Eglinton Avenue East;
- Heavy trucks are permitted at all times;
- There is extensive TTC service; and
- There are sidewalks located on the north side of the street, on the outside edge of the service road loop.

The primary function of Eglinton Avenue East (north-west branch) is to provide access to Kennedy Station for both general traffic and bus service and it connects with Transway Crescent, to provide access to the existing passenger pick-up and drop-off (PPUDO). Every bus that serves Kennedy Station will use this street for access to the station.

Historically, Eglinton Avenue East (north-west branch) has also provided access to the commuter parking lots associated with Kennedy Station. However, due to project needs for both the Line 3 Bus Replacement and Scarborough Subway Extension, the commuter parking has been closed. The parcel of land immediately to the north of Eglinton Avenue East (north-west branch), 2444 Eglinton Avenue East, was formerly a commuter parking lot, but is to be re-developed as part of Toronto's Housing Now initiative and will become a residential development consisting of three residential towers.

Figure 2 shows the local context of the area including the future Scarborough Busway.

Ellesmere Road

Ellesmere Road is an arterial road with six lanes and a posted 50 km/h speed limit between Warden Avenue and McCowan Road. The section between Kennedy Road and Midland Avenue is divided by a concrete median. There is a bus lane present on the south side of the road for the entire block and a bus lane present on the north side of the road from Midland Avenue to 100 meters west of Midland Avenue.

An aerial of the section of Ellesmere Road from Kennedy Road to Midland Avenue is presented in Figure 3.

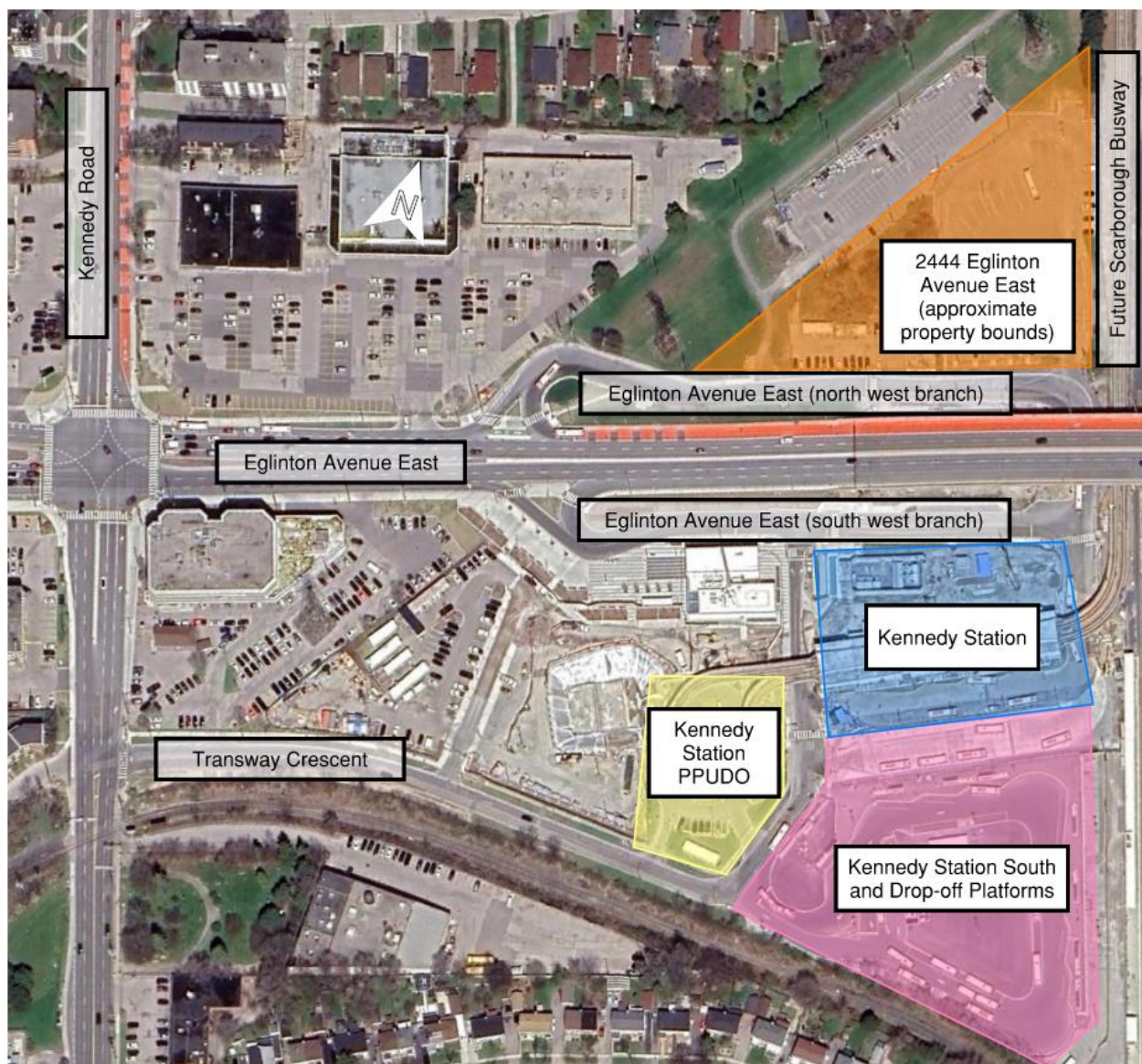


Figure 2. Local Context at Kennedy Station



Figure 3. Ellesmere Road between Kennedy Road and Midland Avenue

Proposed Changes

Traffic Control Signals

The future Scarborough Busway is to connect to the north-east most point of Eglinton Avenue East (north-west branch), resulting in an atypical intersection design. The existing parking lot access is being re-developed into residential towers, with the primary vehicle access to the west of this intersection.

To determine the need for traffic control signals at the intersection of Eglinton Avenue East (north-west branch) and the Scarborough Busway, staff rely on the justification criteria as outlined in the Ontario Traffic Manual (OTM) Book 12. The OTM justification criteria includes factors such as volume of vehicles and pedestrians, delay to cross traffic and collision history. In addition to these technical justifications, staff consider an environmental checklist which includes consideration of road width, posted speed limit, operating speeds, adjacent land uses, pedestrian desire lines, demographics, presence of a transit stop, sight lines and distance between existing crossing opportunities.

As part of the investigation, staff projected vehicle and pedestrian counts for the future intersection based on the projected traffic volumes for the Housing Now site at 2444 Eglinton Avenue East and TTC's service projects. The results of the counts and collision hazard are summarized in Table 1. As this is a future intersection, the OTM Book 12's justification was used; it does not rely on the "collision hazard" criterion, as the intersection does not currently exist and therefore there is no valid collision history.

Table 1: Warrant Compliance – Eglinton Avenue East (north-west branch) and the Scarborough Busway

Justification	Compliance level
Minimum vehicular volume	15%
Delay to cross traffic (pedestrians and vehicles)	18%

To meet the justification criteria for the installation of traffic control signals at a future intersection, both of the justifications must be 100 percent satisfied. Based on the results in Table 1, the installation of traffic control signals is not technically justified.

Notwithstanding the above, Transportation Services further considered installation of traffic control signals at the intersection for the following reasons:

- The alignment of the Busway and the position on the road makes for challenging sight lines for traffic - a signal will eliminate this issue.
- The Busway intersection is very close to Kennedy Station bus entrance/exit, meaning that even a short queue could negatively impact the operations of the terminal - a signal will allow for better management and allocation of the roadway

capacity, especially when coupled with the proposed transit lanes discussed below.

- The proposed signal will allow for transit signal priority (TSP), to allow for minimal delay for the buses leaving the Busway.
- The traffic signal is intended to reduce the circulating delay along Eglinton Avenue East (north-west branch), consistent with existing conditions. The signal would allow people to continue around the curve of the road with minimal delay and provide a protected crossing for pedestrians.

Based on the above, Transportation Services supports the installation of traffic control signals at the intersection of Eglinton Avenue East (north-west branch) and the Scarborough Busway.

Road Alterations

In association with the traffic control signal, road alterations are proposed at the intersection of Eglinton Avenue East (north-west branch) and the Scarborough Busway. The new intersection formed with the proposed Busway would be a t-intersection where the busway would connect into the existing bend.

In addition, a road alteration is proposed to widen the section of Eglinton Avenue East (north-west branch) in the immediate proximity of the existing TTC Line 2 Kennedy Station, in order to provide priority bus lanes between Kennedy Station and the future Scarborough Busway. Priority bus lanes are proposed to reduce delay for transit and reduce confusion for access to the Busway and Kennedy Station. These lanes will reduce the chance of queues spilling back into either the terminal or the new intersection, as they would separate most of the transit vehicles (buses bound to the local network will still use the northbound left lane at the new signal) from general traffic and promote compliance at the restricted areas, the busway and station.

As part of the Scarborough Busway project, TTC has committed to assist with the installation of a multi-use path to the west of the new intersection to provide a continuous active transportation connection to Kennedy Station from the north. This is consistent with what was planned as part of the Eglinton Crosstown project. While the area under the Eglinton Avenue East over rail bridge is currently acting as a staging area for both the Scarborough Subway Extension and the future Scarborough Busway, TTC has worked with Metrolinx to protect for the installation of the multi-use path before the opening of the Busway.

The proposed intersection concept can be seen in Figure 4. The proposed road alterations are presented in Attachment 1, with a map of the area included in Attachment 2.

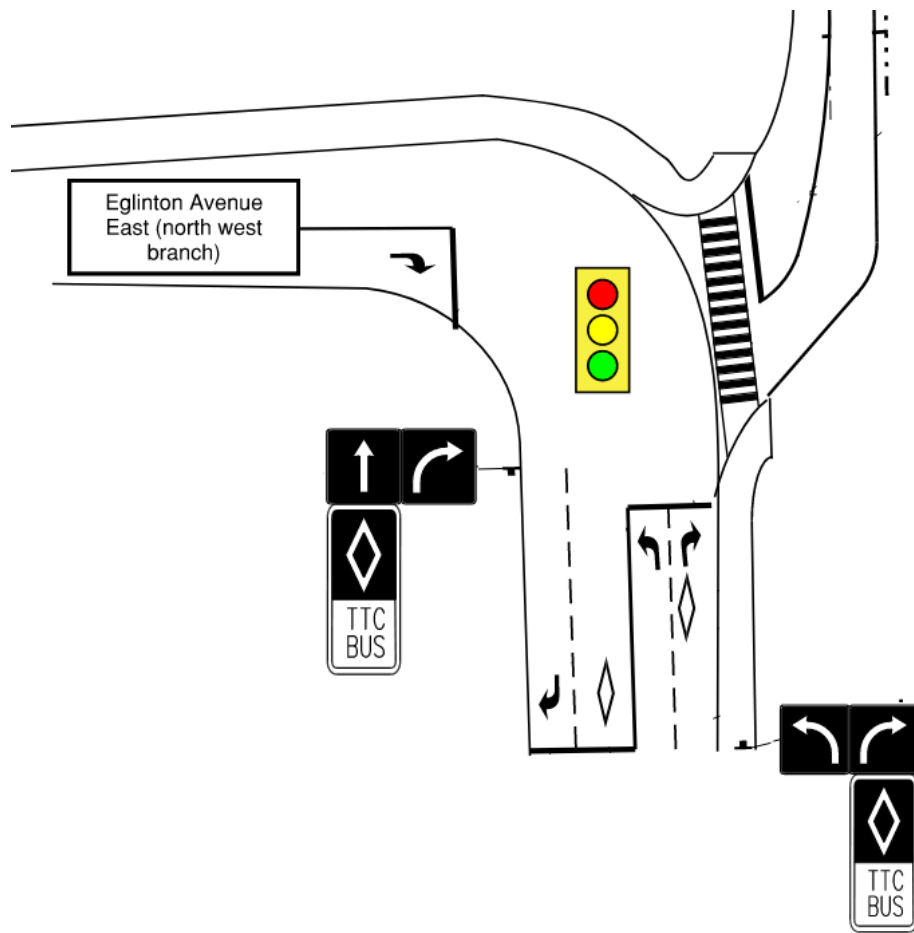


Figure 4. Proposed Intersection of Eglinton Avenue East (north-west branch) and Scarborough Busway

Priority Bus Lane Extension

Currently, the on-street Line 3 Bus Replacement Service uses bus lanes on Ellesmere Road from Brimley Road to 100 metres just past Midland Avenue, to facilitate travelling southbound on Midland Avenue. The bus lane extends from Brimley Road to Ellesmere Road (north-east branch), where the bus then travels along the service road and makes a northbound right onto Ellesmere Road so that it can continue on Midland Avenue southbound after completing the eastbound right at the intersection of Ellesmere Road and Midland Avenue. The movement – a “Michigan Left” - is shown in Figure 5 for context of the existing partial bus lanes on Ellesmere Road west of Midland Avenue.



Figure 5. Existing “Michigan Left” at Ellesmere Road and Midland Avenue

Once the Busway is complete, Ellesmere Road (east branch) will no longer be used, as the access to the Scarborough Busway will be off Ellesmere Road (north-west branch). To allow for the existing transit priority measures to continue to support the Line 3 bus replacement service, it is recommended that the existing westbound priority bus lane be extended to Ellesmere Road (north-west branch), as shown below in Figure 6.



Figure 6. Proposed extension of Ellesmere Road priority bus lane

Next Steps

Subject to approval by City Council, the recommended changes will be installed as part of the Scarborough Busway project and will be in place prior to the opening of the busway, currently projected for 2027.

In addition to the implementation of the changes in this report, Transportation Services and the TTC will report to City Council at an appropriate time with recommendations for the other on-street measures that were approved in item 2023.EX4.10. The aspects that would be under review are the on-street measures that no longer directly support the bus replacement service, specifically the priority bus lanes on Kennedy Road, Midland Avenue, and Ellesmere Road between Kennedy and Ellesmere Road (west branch). This is consistent with recommendation 8 in item 2023.EX4.10.

The Ward Councillor has been advised of the recommendations in this report.

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SIGNATURE

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ATTACHMENTS

Attachment 1: Map – Road Alteration – Eglinton Avenue East (north-west branch) and Scarborough Busway

Attachment 2: Map – Traffic Control Signals – Eglinton Avenue East (north-west branch) and Scarborough Busway