

Frequently Asked Questions of the Eglinton Crosstown LRT

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General

Q1. What key benefits will this project bring to the City and local residents in particular?

How does the project fulfill Official Plan objectives?

- A1. By separating transit from general traffic, this project can provide a fast and reliable (predictable) ride for customers. More people will find transit an attractive alternative to the private auto – so we are taking a major step towards “Building a Transit City”. Toronto’s Official Plan is premised on such an approach to making transit a more attractive travel option as the City grows.

This 33-kilometre long corridor will provide LRT service across Eglinton Avenue from Kennedy Station to Martin Grove Road to Pearson International Airport.

The light rail line will connect with Kennedy Station on the Bloor-Danforth Subway Line, Eglinton Station on the Yonge Subway Line and Eglinton West Station on the Spadina Subway Line. As well, the line will also connect with the future Jane, Don Mills and Scarborough-Malvern light rail corridors.

Q2. What is the purpose of the project?

- A2. TTC and the City of Toronto want to identify the best way to provide high quality transit service across Eglinton Avenue and to the Airport, in a manner which:

- i) is affordable
- ii) makes transit a much more attractive travel option relative to the private auto
- iii) supports the City’s growth objectives of a better variety and density of transit-oriented developments

It is recommended that new, modern, electrically powered light rail vehicles be operated in dedicated lanes, with the only ‘interference’ from other traffic limited to crossings at intersections.

Q3. What is the projected ridership of the route?

- A3. In 2021, forecast ridership for the Eglinton Crosstown LRT is 53-million riders a year. More recent forecasts (premised on expected development levels to 2031) suggest ridership of 5,000 to 5,400 people per hour in a single direction at the busiest point on the line.

Technology

Q4. What is LRT?

A4. There are two basic criteria that are generally required for a facility to be called “LRT”: electrically powered rail vehicles with power supplied from overhead wires which allows them to operate on a city street or in a dedicated right-of-way. The vehicles can be operated individually, or combined into ‘trains’. The reserved right-of-way can take many forms – from dedicated lanes in the middle of the street, underground tunnels, or hydro and abandoned railway corridors.

In addition to the above, all-door loading (not just front doors) with automatic fare collection is characteristic of modern LRT lines in North America and there is normally a much greater distance between stops, relative to a typical bus route.

Q5. Why is LRT preferred over a subway extension?

A5. The design of a transit service is based on the number of people it is expected to carry per hour in a single direction at the ‘peak point’, the busiest spot on the line. City planning forecasts for the **Eglinton Crosstown** corridor into the foreseeable future show a peak point demand in the order of 5,000 to 5,400 people per hour. This demand can easily be accommodated by LRT, particularly given that the new light rail vehicles being designed for the TTC will be about twice the size of a standard Toronto streetcar, and can be easily ‘coupled’ to operate as two-car or three-car trains, if single vehicle operation is too frequent to avoid vehicle bunching. A peak point demand of 5,000 to 5,400 per hour is well below the 10,000 passengers per hour generally required to justify the much higher cost of a subway.

Q6. Why is LRT preferred over buses?

A6. LRT is more comfortable for riders, quieter, has no emissions on the street, and is far superior in carrying capacity in a constrained environment such as an arterial roadway. Buses in dedicated lanes, sometimes called BRT, or bus rapid transit, could not easily accommodate 5,000 to 5,400 people – the peak hour demand projected in the corridor - unless the bus ROW includes by-pass lanes at intersections/stations to allow some buses to operate “express” and pass “local buses” stopped to serve customers. To illustrate the problem, the forecasted demand would require as many as 72 buses per hour (one 18-metre long “articulated” bus about every 50 seconds. Even with dedicated lanes, buses operating this close together would catch up to one another and ‘bunching’ would result if some of them don’t operate express. Given that there are a variety of important objectives for the study corridor – in addition to high quality transit – such as a comfortable walking environment, attractive streetscaping, bike lanes, etc., there is insufficient width available to allow the construction of a by-pass lane to be added to the transit right of way.

Q7. What sections of the LRT line will be at surface level?

A7. The LRT for the most part will operate at surface in the centre of the road between: (1) Pearson International Airport and Keele Street (with some limited sections requiring bridges and/or elevated guideway structures and (2) Leslie Street and Kennedy Road with the exception of a short underground section at Don Mills Road.

For the surface sections, stops will be located about 500 metres apart. This average distance is a good balance between the desire to provide higher travel speeds and maintain access to businesses and residences on Eglinton Avenue.

Q8. Where will stops and stations be provided?

A8. Stations and stops will be provided at the following locations:

Pearson Airport	Silver Dart	Convair
Commerce	Renforth	Rangoon
East Mall	Martin Grove	Lloyd Manor/Widdicombe Hill
Kipling	Wincott/Bemersyde	Islington
Russell/Eden Valley	Royal York	Mulham
Scarlett	Jane	Weston
Black Creek	Keele	Caledonia
Dufferin	Oakwood	Eglinton West
Bathurst	Chaplin	Avenue
Eglinton	Mount Pleasant	Bayview
Laird	Leslie	Don Mills
Ferrand	Wynford	Bermondsey
Victoria Park	Pharmacy	Lebovic
Warden	Birchmount	Ionview
Kennedy		

Q9. Why is the central section of the LRT line located underground, below Eglinton Avenue, instead of at surface?

A9. In the area of the proposed underground section between Keele Street and Leslie Street, the width of Eglinton Avenue is between 20 and 25 metres wide. This width is not sufficient to accommodate the LRT line and maintain two lanes of traffic in each direction. Therefore, the LRT line will be underground over this 12 kilometre section of Eglinton Avenue.

In the underground section, stations will be located about 850 metres apart, typically at intersections where existing north-south bus routes or the Yonge and Spadina Subway lines cross Eglinton Avenue. This station spacing is similar to the central sections of the existing Bloor-Danforth and Yonge-University subway lines where passengers accept a longer walk to reach the frequent, reliable service and weather-protected waiting area provided by the underground operation.

While the distance between underground stations is longer than the distance between surface stops, the resulting longer walk is an acceptable compromise between access, increased reliability, and cost.

Q10. Why will the sections of the LRT at surface run in the middle of the street?

A10. In designing dedicated transit lanes, any crossings by other traffic must have a traffic signal to ensure everyone knows who has the right-of-way. In the study corridor, or on any roadway where there are very frequent un-signalized intersections and driveways, a side of the road option is not feasible because of the safety issue and need for signalization at each location.

Q11. What is the difference between a stop and a station?

A11. Along the surface sections of the line, passengers will board the vehicles at stops. Stops are platforms located in the centre of the road at signalized intersections.

For the underground section of the line, passengers will board the vehicles at stations. Stations are underground platforms where the LRT vehicles stop to drop off and pick up passengers. Passengers will access the platforms from the surface by elevators, stairs and escalators.

Q12. For the surface stops – why are some platforms on either side of the intersection and others on one side only?

A12. There are a number of factors that have been considered when deciding on the location of the platforms. They include: the availability of space for a platform; the need to have the platform located on a straight, level section of track; the anticipated walking and transfer patterns for the transit passengers; and the best location to provide faster transit service. As a result, the layout of platforms can vary between stops.

Q13. How many entrances will be provided at each underground station?

A13. In most locations the underground station will include three station entrances. The entrances will be connected to a station concourse level through an underground walkway. Stair, escalators and elevators will be provided between the concourse level and the platform level.

LRT Service

Q14. What will be the service frequency of the Eglinton Crosstown LRT?

A14. The Eglinton Crosstown is anticipated to provide service every 3 to 3 ½ minutes during the peak periods on weekdays and every 6 minutes throughout the remainder of weekdays and on weekends.

Q15. Will bus services be provided on Eglinton Avenue once the Eglinton Crosstown LRT opens?

A15. At the present time, current bus service on Eglinton Avenue is planned to be replaced by the LRT.

Important Connections

Q16. Where will the Eglinton Crosstown LRT connect to the larger transit network (Subway lines, Scarborough RT, future LRT)?

A16. The Eglinton Crosstown LRT will have a connection to the Spadina Subway at Eglinton West Station, the Yonge Subway at Eglinton Station, and the Bloor-Danforth Subway/Scarborough RT at Kennedy Station. It will also connect to the future Jane, Don Mills Scarborough-Malvern light rail corridors.

Q17. How will the connection to Pearson International Airport be made?

A17. Five different routes were studied to determine a preferred route between Martin Grove and the airport. The selected route follows Eglinton Avenue West to Commerce Boulevard across the 401 to Conair and to Silver Dart. The selected route offers the best connection and transfer convenience to Mississauga/GO BRT and Pearson and was also found to have the best cost/benefit of the five routes. The route into the airport terminus will be the subject of a separate assessment.

Q18. How will a connection be made at Kennedy Station?

A18. The connection at Kennedy Station is currently under review and will be part of a separate study.

Q19. How will a connection be made at Eglinton West and Eglinton Stations?

A19. There will be an underground connection between the new LRT station and the existing subway stations ensuring convenient and high quality interface including stairs, escalators and elevators as applicable.

Q20. How will connections be made to GO Transit rail services?

A20. Potential connections to GO Transit rail services are under consideration near Weston Road (potential connection with the Georgetown line) and near Caledonia Road (potential connection with the Barrie line). These connections depend upon the timeline if and when GO Transit constructs a station on these lines to provide the connection – further study is needed. The connection to GO Transit at Kennedy Station (Stouffville line) will be accomplished through the connection between the Eglinton Crosstown LRT and the Kennedy Subway Station and will be determined in the Kennedy special study.

Q21. Where will bus terminals be provided?

A21. The current plan includes a 4-bay bus terminal at the Keele Station and a 7-bay bus terminal at Don Mills Road.

Q22. How will a connection be made at Don Mills Road to the future Don Mills LRT?

A22. The Eglinton Crosstown LRT will be located underground, beneath Eglinton Avenue. The future Don Mills LRT will be located on the surface in the centre of Don Mills Road. Riders would transfer between the lines through stairs, escalators and elevators between the surface stop on the Don Mills LRT and the underground station on the Eglinton Crosstown LRT.

Q23. How will a connection be made at Jane Street to the future Jane LRT?

A23. The connection between the future Jane LRT and the Eglinton Crosstown LRT will be located in the centre of their respective roadways. Surface stops would be provided on both lines, and patrons would transfer between the lines through the use of crosswalks.

Q24. What option is recommended between Weston Road and Black Creek Drive for the LRT?

A24. Five options were considered for the Weston to Black Creek area. The surface route presented at Open House 2 has been selected based on considerations including the best way to connect to the proposed Maintenance and Storage Facility, best opportunities for future development and rail connections, and cost effectiveness.

Q25. How will a connection be made with Mississauga BRT and GO Transit?

A25. Three options were considered for the connection to the proposed Mississauga BRT/GO Transit Station at Commerce Boulevard. Option two, an LRT centre platform surface stop located on Commerce Blvd to the west side of the BRT station has been selected as the recommended interface location.

Q26. How much time will an LRT save compared to the current buses?

A26. The LRT is expected to save up to 60% of a passengers travel time as compared to the current bus service. The following table provides a comparison of travel times between the LRT and today’s service.

	Travel Time			Transfers Required	
	Existing –bus (minutes)	Proposed LRT (minutes)	% Decrease	Existing -bus	Proposed - LRT
Pearson Airport to Eglinton – Yonge Station	70	48	31%	3	0
Eglinton – Yonge Station to Kennedy Station	43	30	30%	0	0
Keele Street to Brentcliffe	48	19	60%	1	0
Bathurst Street to Don Mills Road	31	17	45%	1	0
Eglinton West – Allen Station to Eglinton –Yonge Station	16	7	56%	0	0

Q27. What fare collection system will be used?

A27. The fare system will be proof of payment (POP). Fare vending machines will be placed at all stops/stations and security staff will patrol the system checking that passengers riding the network have a valid fare.

Q28. Will the tracks and stops be sheltered from snow? How will the tracks and stops be maintained in winter?

A28. At surface stops, canopies will be installed to provide shelter from snow. Snow removal activities at stops and the tracks will be undertaken similar to the current winter maintenance activities performed on the existing streetcar lines.

In the underground section, passengers will be sheltered from snow, as passengers will board and leave the LRT in covered stations.

Bike Lanes

Q29. Will there be bike lanes on any portion of the Eglinton Crosstown LRT route?

A29. Bike lanes are being considered for the Eglinton Crosstown LRT: from Kennedy to the east portal at Brentcliffe, from the west portal at Black Creek to Jane St. and from Martin Grove to Commerce Boulevard. The existing off street bike path from Jane Street to Martin Grove will serve as the bike route in this section. For the underground sections, many existing bicycle routes are found on parallel streets and can serve as the bike route for Eglinton Avenue.

Traffic and Other

Q30. Will any lanes of traffic be removed on any streets to accommodate the LRT?

A30. The standard Transit City street cross section proposes two traffic lanes in each direction plus the dedicated transit lanes.

Q31. How will TTC ensure fast and reliable LRT service in the above ground sections of the line?

A31. In order to provide fast and reliable LRT service, new left turn prohibitions are proposed at nine major intersections.

At five intersections (Kipling, Islington, Royal York, Scarlett and Birchmount), left turns from Eglinton Avenue to the north-south streets will be prohibited. Left-turning traffic would instead U-turn beyond the intersection and then turn right at the intersection to complete the turn. At these five locations, left-turning traffic from the north-south street to Eglinton Avenue will continue to be permitted. At two locations (Jane and Pharmacy), left turns will be prohibited in all four directions and will be re-routed with U-turns and right turns.

At Martin Grove, left turns from Eglinton will be re-routed to new roads. Left turns from Martin Grove to Eglinton will continue to be permitted. At Victoria Park, left turns from Eglinton to Victoria Park will be re-routed so that turns to Victoria Park will be made from Eglinton Square. Left turns from Victoria Park to Eglinton are currently prohibited and will continue to be prohibited.

Q32. Will there be left-turn restrictions on any streets to accommodate the LRT?

A32. Between intersections, the LRT will travel in a transit right-of-way in the centre of the street separated from vehicular traffic to enhance LRT operating speed and reliability. For safety reasons, left turns from minor streets and driveways across the transit right-of-way cannot be permitted. Motorists will instead turn right and then u-turn at the signal.

Q33. Will traffic entering or exiting Highway 427 be affected in any way by the LRT?/ How will the Don Valley Parkway be affected?

A33. At Highway 427 and the Don Valley Parkway, the Eglinton Crosstown LRT is proposed to be on the surface in the middle of Eglinton Avenue. No significant impacts to the interchange traffic operations are anticipated.

Q34. Can emergency vehicles use the dedicated right of way for the LRT?

A34. TTC is consulting with Emergency Medical Services and Fire Services on how the LRT right-of-way can be designed to accommodate their vehicles.

Q35. Will there be noise or vibration from the LRT?

A35. With current track design technology, there will be very little noise or vibration. In the past, the greatest problem with noise on light rail lines has been created at locations where the vehicle must operate through a loop to turn around. This creates 'wheel squeal'. The new LRT vehicles are planned to be 'double-ended' – i.e. have an operators' cab at both ends so it can be operated in either direction. It will reverse direction at each end of the line, similar to the operation of a subway, and therefore will **not** need loops. TTC will design the trackbed to dampen vibration and ensure it is kept at an acceptable level.

Consultation

Q36. What key decisions have been made? What decisions are open for comment? (What does TTC want feedback on? e.g. technology, route, centre right of way etc).

A36. Technically speaking, TTC and City staff makes recommendations. Ultimately, City Council will make the 'final decision' on these matters. However, from a staff perspective, the rationale for recommending is being presented as the best way of achieving the TTC and City objectives in this corridor.

All public comments will be considered and evaluated. However, if no compelling arguments against the recommendations are presented, the LRT design will proceed. We'll be discussing those issues with the public to assist us in developing final recommendations. Public input and additional analysis following the last round of open houses has helped TTC improve stop locations and design.

Cost and Timelines

Q37. When could construction start?

A37. The start of construction is currently scheduled for 2010. The LRT is currently scheduled to open for service in phases, with the first phase scheduled to open in 2016. The entire line is scheduled to be open for service in 2020.

Q38. How will the project be funded?

A38. On April 1, 2009 the Province of Ontario announced \$4.6 billion funding for the Eglinton Crosstown LRT project from Kennedy Station to Pearson Airport.

Businesses

Q39. How long will construction take?

A39. Estimating construction timelines for any single business or residence is difficult to forecast as it is in direct correlation to the scope or amount of work being completed in close proximity to that home or business. The scope of work changes along the entire length of the corridor and is a function of utility relocation requirements, amount of streetscape improvements and roadway and sidewalk changes. Indirect impacts such as traffic detours, etc. can be expected to last up to one-year.

Q40. What will be done to minimize disruption during construction?

A40. Experience on other large LRT and Subway projects in the City has suggested that the most prevalent issues of disruption to business are; reduced access to the area, loss of parking, noise and vibration. The City / TTC are committed to accelerating construction as much as possible in an effort to minimize construction related impacts to residents and businesses. Auto and transit traffic will be maintained throughout construction at a minimum of a single lane in each direction. Pedestrian access may be detoured at times but will also be maintained throughout construction.

Every attempt at replacing short term parking loss for each individual home and business will be made. Detailed condition surveys of buildings thought to be vulnerable to ground borne vibration will be monitored pre and post construction. Contract documents assign strict limits for construction related noise to daytime hours only. All construction related activities are subject to building code provisions including the applicable noise by-laws.

Q41. How will City /TTC work with businesses on the project?

A41. Experience shows that the biggest concern for business during large construction projects is anticipating the impacts stemming from construction. The City / TTC are often told that having quick access to construction related information, specifically schedule and timing information is critical to reducing or minimizing impacts. For this reason the City / TTC will form during construction a *“Construction Liaison Committee”* (CLC).

The CLC is made up of City / TTC and Contractors staff who meet bi-weekly on site. Business owners and residents directly affected by the current / future construction activity are invited and encouraged to attend these meetings where the day to day issues affecting their home / business are discussed and resolved. Issues such as business deliveries, local parking, and garbage pick-up are often topics of concern. Further, construction schedules and activity timing is also a prime topic. Besides the CLC the City and TTC will undertake, prior to each phase of construction, a comprehensive public awareness campaign. Keeping the area up to date and well informed in advance of construction can dramatically reduce the inevitable disruption brought about by large construction projects.

Construction

Q42. How will the surface sections of the LRT line be constructed?

A42. The first step during construction of the surface sections is the relocation of utilities. Next, construction of the LRT would occur on one side of Eglinton Avenue while the other side would remain open to traffic. Once construction has finished, the work would switch to the other side of the street, and traffic would flow on the reconstructed side. When both sides have been completed, finishes would be applied to the shelters on the platforms at the stops, and lighting would be installed. Standard bridge construction will be used to construct the crossing over Highway 401.

Q43. How will the underground sections of the LRT line be constructed?

A43. The majority of the underground segment of the line will consist of side by side, or twin, tunnels. Each tunnel will be 6 metres in diameter and will be constructed using powerful circular cutting machines that drill deep below street level.

In addition to tunnelling, construction on stations, portals, stations with special trackwork such as crossover and storage/turn back tracks will require a second method called cut and cover.

This method requires the excavation of the ground to create a trench where the station structure would be located. During the construction phase, utilities would be relocated, and then excavation would begin. Decking would then be installed to allow traffic to flow over the construction site. Once the station box has been completed, the decking would be removed, the remaining open area will be backfilled and the surface will be restored. Detailed traffic management plans including comprehensive pedestrian and parking arrangements will be developed during the detailed design phase of the project.

Q44. Have any alternative construction methods been studied?

A44. As presented at PIC #2 in June/July a single large diameter tunnel was considered. The station platform of the single bore tunnel scheme was considered less desirable for passengers moving between the surface and platform levels. As well, the technology for the single bore tunnel would have been without precedent as the largest bore ever attempted in North America. Existing geological strata would have resulted in higher risk of ground impacts at the surface and to adjacent buildings during the boring operations.

Next Steps

Q45. What happens after this round of Public Open Houses?

A45. The Eglinton Crosstown LRT is following Ontario Regulation 231/08, Transit Projects and Greater Toronto Transportation Authority Undertakings (2008). The environmental impact of this project has been assessed in accordance with the Transit Project Assessment Process.

Following the open houses and review of comments, there will be an opportunity to incorporate feedback. A formal public notice of study completion will then be issued. At that time, an Environmental Project Report will be made available for a 30 day review Period on the project website: www.toronto.ca/involved/projects/eglinton_crosstown_lrt/ and at specified locations in the Notice of completion.

In addition, the public will also have the opportunity to comment on-line (through www.toronto.ca/transitcity).

This is the final round of public consultations for the Transit Project Assessment. The study is scheduled for completion in early 2010.

For more information please visit the project website:

www.toronto.ca/transitcity

see: [Eglinton Crosstown LRT](#)

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