

July 12, 2022

**RE: EX34.5 Eglinton Crosstown Light Rail Transit: Train Operating and Funding Term Sheet**

Dear Mayor John Tory and Executive Committee,

TTCriders is a membership-based organization of transit users in Toronto that supports affordable, accessible, and frequent public transit service for all neighbourhoods.

The opening of the Eglinton Crosstown LRT project will connect Scarborough to Midtown to Etobicoke, serving more than just downtown-bound commuters. Thank you for your work advancing this critical project.

As the operations and funding agreement is finalized, we encourage you to clarify the type of signal priority that will be deployed and its impact on operations. Transit signal priority modifies traffic signal phases, which can allow surface transit vehicles to advance across intersections ahead of other traffic, supporting faster and more reliable transit service.

**Our current understanding is that the Eglinton Crosstown will use a limited form of signal priority, which will build wait times at traffic lights into its schedule.**<sup>1</sup> Light rail vehicles may “call” to extend a green light or shorten a red light, but only if they are running behind schedule.

Nine kilometres of the line will operate on the surface in the median of Eglinton, crossing dozens of signalized intersections. **Trains that move hundreds of people should be prioritized over low-occupancy vehicles at intersections.**

We urge you to provide an update about the nature of transit signal priority that will be used on the Crosstown Line, including:

- **A detailed explanation of the functions of the Eglinton Crosstown’s signal priority system and its impact on frequency, schedule, and operations.** Transit signal priority can be passive, limited, or active. See attached graphics for more details.
- **A comparison of time savings** that compares trip times with different levels of transit signal priority enabled, and to a base case where no signal priority is enabled.
- Potential impacts of various forms of signal priority on the Crosstown on the reliability of major north-south bus routes that cross Eglinton

Rapid transit projects should be *rapid* with better signal priority to minimize unnecessary delays at intersections. TTCriders supports an active signal priority system that detects approaching trains and modifies traffic signal cycles to provide a green light for trains.

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<sup>1</sup> As reported by *Toronto Star* transit reporter Ben Spurr on October 15, 2021:

<https://twitter.com/benspurr/status/1449048385156157449>;

<https://www.thestar.com/news/gta/2021/10/12/a-closer-look-at-eglinton-crosstown-lrt.html>

We look forward to learning about the form of signal priority being planned on the Eglinton Crosstown and other rapid transit projects that will operate on Toronto streets.

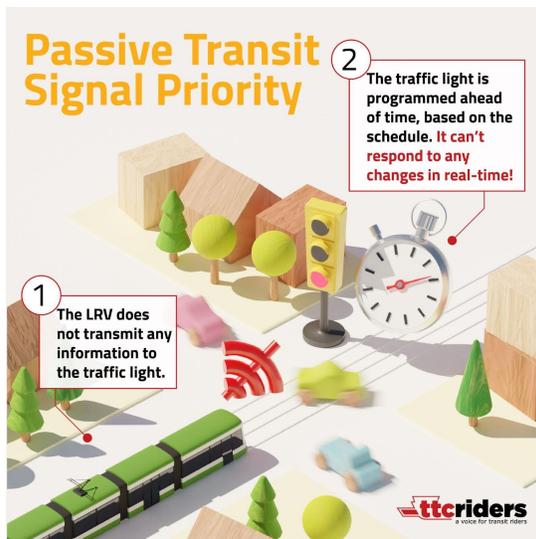
Sincerely,

Shelagh Pizey-Allen,  
TTCriders

August Pantitlán Puranauth,  
TTCriders

### Graphics and more information about Transit Signal Priority (TSP):

Graphics created by Nico Zucco



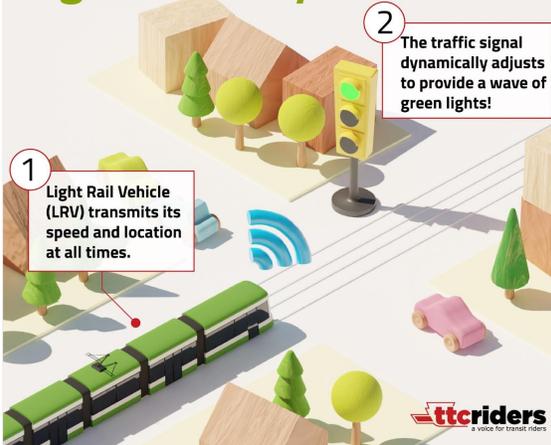
- Passive TSP does not actively respond to transit vehicles as they approach intersections
- Instead, signal phases are predetermined to provide optimal travel time savings to transit vehicles on a line
- This form of TSP is ineffective if delays occur and the passage of trains does not align with green phases - or the flow of service is otherwise thrown off schedule

## Limited Active Transit Signal Priority



- Transit vehicles actively communicate information to traffic signals as they approach the intersection
- Also called conditional TSP - signal priority will only be given under certain conditions
- The 'condition' varies but it is usually based on schedule (if a transit vehicle is running late, this is considered a valid condition to request signal priority)

## Full Active Transit Signal Priority



- Transit vehicles actively communicate information to traffic signals as they approach the intersection
- Typical full active TSP will detect an approaching transit vehicle and *modifies* the traffic signal cycle to allow a green by either extending a concurring green phase or truncating a red phase