

## **Pedestrian Crossing Protection - Islington Avenue and Prince George Drive/Ridgevalley Crescent**

**Date:** February 8, 2023

**To:** Etobicoke York Community Council

**From:** Director, Traffic Management, Transportation Services

**Wards:** Ward 2 – Etobicoke Centre

### **SUMMARY**

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As the Toronto Transit Commission (TTC) operates a transit service on Islington Avenue, City Council approval of this report is required.

Transportation Services has reviewed the need for pedestrian crossing protection at the intersection of Islington Avenue and Prince George Road/Ridgevalley Crescent. Based on the assessment undertaken, Transportation Services is recommending the installation of traffic control signals at the intersection of Islington Avenue and Prince George Road/Ridgevalley Crescent. The traffic control signals will provide enhanced safety for vulnerable road users.

### **RECOMMENDATIONS**

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The Director, Traffic Management, Transportation Services recommends that:

1. City Council authorize the installation of traffic control signals at the intersection of Islington Avenue and Prince George Drive/Ridgevalley Crescent.

### **FINANCIAL IMPACT**

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The estimated cost for installing traffic control signals at the intersection of Islington Avenue and Prince George Drive/Ridgevalley Crescent is \$180,000. Funding would be subject to availability and competing priorities within the Transportation Services interim 2023 Capital Budget.

### **DECISION HISTORY**

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This report addresses a new initiative.

## COMMENTS

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Transportation Services staff was requested by an area resident to review the need for pedestrian crossing protection on Islington Avenue, near Prince George Road/Ridgevalley Crescent. This request is to address the long distance between protected pedestrian crossings on Islington Avenue, which is approximately 825 metres, and enhance safety for pedestrians and transit users using the mid-block TTC bus stops.

### Existing Conditions

Islington Avenue is characterized by the following conditions:

- It is a 4-lane, north-south, local roadway
- It operates two-way traffic on a pavement width of approximately 13.7 metres
- The daily two-way traffic volume is approximately 30,000 vehicles
- The speed limit is 50 km/h
- Heavy trucks are permitted at all times
- There is TTC service provided by the 37, 37A, 37B and 337 Islington buses
- There are sidewalks located on both sides of the street

Prince George Drive is characterized by the following conditions:

- It is a two-lane, east-west, local roadway
- It operates two-way traffic on a pavement width of approximately 9.2 metres
- The daily two-way traffic volume is approximately 400 vehicles
- The speed limit is 40 km/h
- Heavy trucks are prohibited at all times
- There is no TTC service provided
- There are no sidewalks on either side of the street

Ridgevalley Crescent is characterized by the following conditions:

- It is a two-lane, east-west, local roadway
- It operates two-way traffic on a pavement width of approximately 9.2 metres
- The daily two-way traffic volume is approximately 400 vehicles
- The speed limit is 50 km/h
- Heavy trucks are prohibited at all times
- There is no TTC service provided
- There are no sidewalks on either side of the street

Islington Avenue and Prince George Drive/Ridgevalley Crescent form a four-leg intersection. Prince George Road and Ridgevalley Crescent are stop-sign controlled while Islington Avenue is uncontrolled free-flow.

The adjacent land use in this area is residential. There are northbound and southbound bus stops at the Islington Avenue and Prince George Drive/Ridgevalley Crescent intersection.

The closest adjacent traffic controls are located approximately 390 metres to the north at Princess Margaret Boulevard/Poplar Heights Drive in the form of traffic control signals

and approximately 435 metres to the south at The Kingsway in the form of traffic control signals.

A map of the area is included in Attachment 2.

Transportation Services has reviewed the need for either a pedestrian crossover (PXO) or traffic control signals at this location to determine if either device should be recommended as an appropriate pedestrian crossing protection.

### **Pedestrian Crossover (PXO)**

To determine the need for a PXO at Islington Avenue and Prince George Drive/Ridgevalley Crescent, staff rely on the justification criteria as outlined in the Ontario Traffic Manual (OTM) Book 12. The OTM justification criteria includes two main factors: the volume of vehicles and pedestrians; and pedestrian delay to cross traffic. Based on the traffic volume on Islington Avenue, the warrants require a minimum of 227 pedestrians crossing over eight hours. Also, based on the pedestrian crossing volume, at least 130 pedestrians must be delayed more than 10 seconds.

An eight-hour pedestrian volume and delay study was conducted on April 27, 2022, which recorded the total volume and delays of pedestrians crossing at Islington Avenue and Prince George Drive/Ridgevalley Cres. Seniors, unassisted children and people with disabilities that are observed crossing are given a higher weighting by a factor of two. The adjusted volume of pedestrians observed crossing was 25; of these, 18 experienced a delay greater than 10 seconds. The compliance level of the study results in relation to the warrant criteria is shown in Table 1 below.

Table 1: Pedestrian Crossover Warrant Criteria and Compliance at Islington Avenue and Prince George Drive/Ridgevalley Crescent

<b>Justification</b>	<b>Compliance</b>
Pedestrian Volume	11 percent
Pedestrian Delay	14 percent

In order to meet the warrant criteria, 100 percent compliance is required in both categories. Based on the results of the study, a PXO is technically not justified as both the pedestrian volume and delays have not met the minimum requirements.

Staff also reviewed the collision history at this location. Collision statistics provided by the Toronto Police Service for the three-year period ending December 31, 2021, disclosed zero collisions at the area of Islington Avenue and Prince George Drive/Ridgevalley Crescent that involved crossing pedestrians.

In addition to the technical criteria, consideration of the surrounding area is given and in some cases engineering judgement may be applied to recommend a PXO even if the number of pedestrians do not meet the threshold of the technical warrants. Environmental safety characteristics were also evaluated to ensure that the installation of a PXO would be appropriate at this location. Details of the evaluation are included in

Attachment 1. Based on the evaluation, a PXO would not be a suitable type of pedestrian crossing protection at this location due to the operating speed on Islington Avenue being greater than 60 km/h.

### Traffic Control Signals

To determine the need for traffic control signals at the intersection of Islington Avenue and Prince George Drive/Ridgevalley Crescent, staff rely on the justification criteria as outlined in the 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 and demographics, presence of a transit stop, sight lines, and distance between existing crossing opportunities.

Staff conducted vehicle and pedestrian counts on September 17, 2019, at the subject intersection. Collision history provided by the Toronto Police Service for the three-year period ending December 31, 2021 disclosed one collision at the subject intersection that would be potentially preventable by the installation of traffic control signals. The results of the counts and collision hazard are summarized in Table 1. The "Collision hazard" criterion is based on the number of collisions potentially preventable by the installation of traffic control signals.

Table 2: Warrant Compliance - Islington Avenue and Prince George Drive/Ridgevalley Crescent

<b>Justification</b>	<b>Compliance level</b>
Minimum vehicular volume	15%
Delay to cross traffic (pedestrians and vehicles)	14%
Collision hazard	7%

To meet the technical justification criteria for the installation of traffic control signals, one of the justifications must be 100 percent satisfied or both the minimum vehicular volume and delay to cross traffic justifications must be at least 80 percent satisfied. Based on the results in Table 2, the installation of traffic control signals is not justified.

In regards to the environmental checklist, staff noted the following environmental factors:

- the long spacing between pedestrian crossing protection on Islington Avenue;
- the presence of transit stops in both directions on Islington Avenue that attract pedestrians to cross the street;

- the residential pedestrian generators in the immediate area, that attract vulnerable pedestrians to cross the street; and
- the four lane cross-section on Islington Avenue, as well as the speed and volume of traffic using this street.

In considering the above environmental factors, Transportation Services recommends the installation of traffic control signals at Islington Avenue and Prince George Drive/Ridgevalley Crescent as it will provide enhanced safety for all road users.

The TTC has been consulted and concurs with these findings.

### **Other Considerations**

- There is potential for increase in delays to transit service on Islington Avenue.

Staff recommend the installation of traffic control signals based on the technical and environmental criteria including the long spacing between existing pedestrian crossing protections and the presence of pedestrian generators in the area.

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

### **CONTACT**

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### **SIGNATURE**

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Roger Browne, M.A.Sc., P. Eng.  
Director, Traffic Management, Transportation Services

### **ATTACHMENTS**

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Attachment 1: Environmental Safety Audit - PXO - LOCATION  
Attachment 2: Map - Traffic Control Signals - Islington Avenue and Prince George Drive/Ridgevalley Crescent

Attachment 1: Environmental Safety Audit - PXO - Islington Avenue and Prince George Drive/Ridgevalley Crescent

<b>Standard</b>	<b>Comments</b>	<b>Standard Met/Not Met</b>
Vehicle operating speed less than 60 km/h	The operating speed or 85th percentile speed on Islington Avenue is over 60 km/h.	Not Met
Not more than four lanes wide on a two-way street or more than three lanes wide on a one-way street	Islington Avenue operates with two lanes in each direction.	Met
Traffic volume not more than 35,000 vehicles per day	Islington Avenue carries approximately 30,000 vehicles per day.	Met
No significant volume of turning movements	The volume of traffic turning to/from Islington Avenue is low (approx. 320 vehicles over busiest eight hours).	Met
No visibility problems exist for either pedestrians or motorists	No vertical or horizontal curves.	Met
No loading zones (including TTC) in the immediate area	TTC stops are located on Islington Avenue at Ridgevalley Crescent/Prince George Drive.	Not Met
No driveways or entrances nearby	No driveways in the vicinity.	Met
Spacing is not less than 200 metres to another pedestrian crossover or traffic control signal	The Kingsway (TCS) - 435 metres east Poplar Heights Drive/ Princess Margaret Boulevard (TCS) - 390 metres west	Met

Attachment 2: Map - Traffic Control Signals - Islington Avenue and Prince George Drive/Ridgevalley Crescent

