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Traffic Control Signals - Overlea Boulevard and Leaside Park Drive

Date: May 10, 2018
To: North York Community Council
From: Acting Director, Transportation Services Division, North York District
Wards: Ward 26 - Don Valley West

SUMMARY

As the Toronto Transit Commission (TTC) operates bus service on Overlea Boulevard, City Council approval of this report is required.

Transportation Services is requesting approval to install traffic control signals at the intersection of Overlea Boulevard and Leaside Park Drive.

The installation of traffic control signals is technically justified and will enhance safety for all road users. However, this installation may increase delays for motorists on Overlea Boulevard, as these movements will no longer operate with free flow. Additionally, there are civil modifications required to the centre median on Overlea Boulevard as part of this signal installation, which will increase the costs and delay the installation.

RECOMMENDATIONS

The Acting Director, Transportation Services, North York District recommends that:

1. City Council approve the installation of traffic control signals at the intersection of Overlea Boulevard and Leaside Park Drive.

FINANCIAL IMPACT

The estimated cost for installing traffic control signals is approximately \$180,000.

Additionally, traffic control signal installation will require modifications to the centre median on Overlea Boulevard to accommodate pedestrian crosswalks. This civil work will result in additional costs and delays to the signal installation. Transportation Services will fund the civil work; however, the timing will be determined by the Engineering and Construction Services Division and will be co-ordinated with adjacent planned capital work in the area, estimated to be 2020-2021.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

Transportation Services was requested by Councillor Jon Burnside, on behalf of local residents, to review the need for pedestrian crossing protection (traffic control signals or a pedestrian crossover) at the intersection of Overlea Boulevard and Leaside Park Drive.

Overlea Boulevard is a major arterial street with a daily traffic volume of approximately 23,000 vehicles and a regulatory speed limit of 50 km/h. It consists of two lanes in each direction that are separated by a wide, treed median. The curb lanes on Overlea Boulevard are reserved for buses, taxis, high occupancy vehicles, motorcycles and bicycles between the hours of 7:00 a.m. to 10:00 a.m. and 3:00 p.m. to 7:00 a.m., Monday to Friday. There are sidewalks on both sides of the street. TTC service on Overlea Boulevard is provided by the 25 Don Mills, 88 South Leaside and 325 Don Mills bus routes. There are bus stops on both sides of Overlea Boulevard, immediately east of Leaside Park Drive.

Leaside Park Drive is a two-way local street that intersects the south side of Overlea Boulevard in a stop controlled, 'T' type intersection. A gap in the centre median on Overlea Boulevard is provided at this intersection to permit left-turn movements. Leaside Park Drive has a regulatory speed limit of 50 km/h and there is a sidewalk on the south side of the street. It travels south for approximately 85 metres before becoming a private road. This private road does not have any other outlets and accesses a townhouse development, forming an internal loop on the north east side of Leaside Park Drive. There is a pedestrian path from the private road network to Overlea Boulevard, approximately 90 metres east of the intersection of Overlea Boulevard and Leaside Park Drive.

The land use in this area is a mix of residential and commercial uses. In addition to the transit stops, a significant pedestrian generator in the area is Leaside Park, which includes a tennis club, a playground and an outdoor pool. There are existing traffic control signals on Overlea Boulevard approximately 160 metres to the southwest of Leaside Park Drive at Millwood Road, and 230 metres to the northeast at Thorncliffe Park Drive.

A review of Toronto Police Services collision records for the three-year period ending December 31, 2017, revealed that there was one reported collision susceptible to prevention by the installation of traffic control signals at the intersection. This collision involved a motorist turning left from Overlea Boulevard to Leaside Park Drive being struck by a motorist exiting Leaside Park Drive. There were no reported collisions involving pedestrians crossing Overlea Boulevard at Leaside Park Drive. To evaluate the need for pedestrian crossing protection at the intersection of Overlea Boulevard and Leaside Park Drive, Transportation Services undertook a weekday peak eight-hour vehicle and pedestrian study at the intersection on December 5, 2017. Based on the study results, and the collision history at the intersection, the numerical warrants for the installation of traffic control signals are satisfied to the following extent:

Table 1: Overlea Boulevard and Leaside Park Drive - Traffic Control Signal Warrant Criteria and Compliance

Criteria	Compliance
Minimum Vehicular Volume	18 percent
Delay to Cross Traffic	29 percent
Collision Hazard	7 percent

To meet the numerical warrants for the installation of traffic control signals, one of the "Minimum Vehicle Volume" or "Delay to Cross Traffic" criteria must be 100 percent satisfied, or any two of the three criteria must be at least 80 percent satisfied. Based on the above results, the installation of traffic control signals is not numerically warranted at the intersection of Overlea Boulevard and Leaside Park Drive.

A subsequent weekday eight-hour pedestrian volume and delay study was undertaken on Overlea Boulevard at Leaside Park Drive on March 6, 2018. This study revealed that over the busiest eight-hour period of the day, 267 pedestrians crossed Overlea Boulevard in the vicinity of Leaside Park Drive. Most of these pedestrians were destined to/from the TTC stops on Overlea Boulevard. Of these 267 pedestrians, 157 (59 percent) experienced delays greater than 10 seconds to cross. The study results were evaluated against the criteria for the installation of a pedestrian crossover. Based on the study results, the numerical warrants for the installation of a pedestrian crossover are satisfied to the following extent:

Table 2: Overlea Boulevard and Leaside Park Drive - Pedestrian Crossover WarrantCriteria and Compliance

Criteria	Compliance
Pedestrian Volume	100 percent
Pedestrian Delay	100 percent

To support the installation of a pedestrian crossover, both criteria must be satisfied to 100 percent. Therefore, a pedestrian crossover is numerically warranted at the intersection of Overlea Boulevard and Leaside Park Drive. However, pedestrian crossovers are generally no longer installed on arterial roadways in the City of Toronto.

Therefore, based on the study results and the observed pedestrian crossing activity, Transportation Services recommends the installation of traffic control signals at the intersection of Overlea Boulevard and Leaside Park Drive. This installation will provide a protected crossing for pedestrians on Overlea Boulevard and will enhance safety for all road users. The installation of traffic control signals will require the installation of pedestrian crossings over Overlea Boulevard, on both sides of Leaside Park Drive. These installations will necessitate concrete ramps on the boulevards of Overlea Boulevard, as well as reductions in the centre medians. The civil work to the centre median will be funded by Transportation Services. However, the timing of this work will be determined by the Engineering and Construction Services Division, which has indicated this work will be co-ordinated with adjacent planned capital work in the area, estimated to be 2020-2021.

The TTC has been advised of the study results and recommendations but has not provided comments.

The Ward Councillor is aware of the recommendation of this staff report.

CONTACT

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SIGNATURE

Peter K. Hillier Acting Director

ATTACHMENTS

Attachment 1: Map - Proposed Traffic Control Signals - Overlea Boulevard and Leaside Park Drive