

Traffic Control Signals – Royal York Road and Judson Street

Date: June 11, 2018
To: Etobicoke York Community Council
From: Director, Transportation Services, Etobicoke York District
Wards: Ward 6 - Etobicoke-Lakeshore

SUMMARY

The purpose of this report is to respond to a request from Etobicoke York Community Council that directed the Director, Transportation Services, Etobicoke-York District, in consultation with the Director, Community Planning, Etobicoke York District, to report back at the July 4, 2018 meeting of Etobicoke York Community Council on the feasibility of controlling both the intersections of Royal York Road and Judson Street, and Royal York Road and Cavell Avenue with one set of traffic control signals.

Although it is not feasible to consider both intersections as one large intersection given the significant distance between the subject intersections (i.e., approximately 130 metres), staff evaluated each intersection individually to determine if traffic control signals are warranted.

The installation of traffic control signals is technically justified and recommended at the intersection of Royal York Road at Judson Street. However, the warrants for the installation of traffic control signals at the intersection of Royal York Road at Cavell Avenue are not met.

As the Toronto Transit Commission (TTC) operates bus service on Royal York Road, City Council approval of this report is required. TTC has been advised on the matter.

RECOMMENDATIONS

The Director, Transportation Services, Etobicoke York District recommends that:

1. City Council approve the installation of traffic control signals at the intersection of Royal York Road at Judson Street.

FINANCIAL IMPACT

The estimated cost for the installation of traffic control signals at Royal York Road at Judson Street is \$180,000.00. These funds are included within the Transportation Services' 2019 Capital Budget subject to the availability of funding and competing priorities.

DECISION HISTORY

Etobicoke York Community Council, at its meeting of May 2, 2018, adopted item EY30.33 which, "Requested the Director, Transportation Services, Etobicoke-York District, in consultation with the Director, Community Planning, Etobicoke York District to report to the July 4, 2018 meeting of Etobicoke York Community Council on the feasibility of implementing a new, large intersection traffic controls, spanning Royal York Road from Judson Street to Cavell Avenue, with the southbound light at Judson Street and the northbound light at Cavell Avenue."

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2018.EY30.33>

COMMENTS

According to the City of Toronto's Road Classification System, Royal York Road is classified as a 'Minor Arterial' road. Royal York Road in the area of Judson Street is a two lane roadway. The Canadian National Railway (CNR) overpass is located between Judson Street and Cavell Avenue. In addition, there are designated bike lanes on both sides of Royal York Road. Traffic control signals are located at the intersection of Royal York Road and Newcastle Street, approximately 140 metres north of the intersection of Royal York Road and Judson Street. A pedestrian crossover exist on the south leg of the intersection of Royal York Road and Stanley Avenue, approximately 80 metres south of the intersection of Royal York Road and Cavell Avenue. A map of the area is Attachment 1.

The Toronto Transit Commission (TTC) operates bus service on Royal York Road, with a bus stop located northbound on Royal York Road south of Cavell Avenue.

The distance on Royal York Road between the south curb line tangent at Judson Street and the north curb line tangent at Cavell Avenue is approximately 120 metres. This distance exceeds the maximum fifteen (15) metres required between intersections to be considered as one large intersection for the installation of traffic control signals. As a result, staff reviewed each intersection individually to determine if traffic control signals are warranted.

Traffic counts were undertaken at the intersections of Royal York Road and Judson Street, and Royal York Road and Cavell Avenue in May, 2018. Our warrant analysis for both intersections are summarized in the following tables:

Traffic Control Signal Warrant - Royal York Road at Judson Street

	Actual Hourly Average (A)	Minimum Required (B)	Warrant % (A/B)	Criteria*		
				1	2	3
Warrant 1: Minimum Vehicular Volume Warrant (8 Hrs)	232	255	82%	100%	= or >80%	*MET
				OR	AND	
Warrant 2: Delay to Cross Traffic Warrant (8 Hrs)	67	75	80%	100%	= or >80%	*MET
				OR		
Warrant 3: Collision Hazard Warrant (3 Years)	0	15	0%	100%	0%	NOT MET

Traffic Control Signal Warrant - Royal York Road at Cavell Avenue

	Actual Hourly Average (A)	Minimum Required (B)	Warrant % (A/B)	Criteria*		
				1	2	3
Warrant 1: Minimum Vehicular Volume Warrant (8 Hrs)	195	255	73%	100%	= or >80%	NOT MET
				OR	AND	
Warrant 2: Delay to Cross Traffic Warrant (8 Hrs)	19	75	25%	100%	= or >80%	NOT MET
				OR		
Warrant 3: Collision Hazard Warrant (3 Years)	1	15	7%	100%	0%	NOT MET

*In order to meet the warrants, 100 percent compliance is required in one of the three warrants or a minimum of 80 percent in both of the first two warrants. The Collision Hazard warrant is based on the number of collisions susceptible to correction by the installation of traffic control signals and must be 100 percent satisfied.

In both Warrants 1 and 2, in order to warrant traffic control signals to a 100 percent value, each hour must meet the maximum or exceed the minimum required values. In some cases, each hour could exceed the maximum value or be below the minimum value but collectively will satisfy the warrant to meet or exceed the 80% minimum value required.

Our review of the collision records (over the last 3 years of complete data) revealed no reportable collisions that would be considered preventable with traffic control signals at the intersection of Royal York Road and Judson Street. There was one reportable

collision that would be considered preventable at the intersection of Royal York Road and Cavell Avenue.

Given that Warrants 1 and 2 both met or exceeded the 80% threshold required for the intersection of Royal York Road and Judson Street, the installation of traffic control signals is justified at this location. However, the warrants for the installation of traffic control signals at the intersection of Royal York Road at Cavell Avenue were not met.

Based on the above review and results, Transportation Services recommends the installation of the traffic control signals at the intersection of Royal York Road at Judson Street. This installation is technically justified and will enhance safety for pedestrians, cyclists and motorists at the intersection.

Furthermore, approximately four parking spaces would be eliminated on the east side of Royal York Road, north of Judson Street, as result of the proposed installation of traffic control signals at the intersection of Royal York Road and Judson Street.

Transportation Services has advised the TTC of the proposed traffic control signals. At the time this report was written, staff had not received any comments or concerns from the TTC.

CONTACT

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SIGNATURE

Steven T. Kodama, P.Eng.
Director, Transportation Services - Etobicoke York District

ATTACHMENT

Attachment 1: Location Plan - Royal York Road at Judson Street

Attachment 1: Location Plan: Road York Road and Judson Street

