

Traffic Calming (Speed Humps), 30 km/h Speed Limit and U-Turn Prohibition Review – Corinthian Boulevard

Date: January 14, 2020

To: Scarborough Community Council

From: Acting Director, Traffic Management, Transportation Services

Wards: Ward 22 – Scarborough-Agincourt

SUMMARY

This staff report is about a matter that the Community Council has delegated authority to make a final decision.

As a result of requests from the Councillor, JB Tyrrell Senior Public School and residents regarding vehicle speeds on Corinthian Boulevard, Transportation staff reviewed the need for traffic calming on Corinthian Boulevard, between Pharmacy Avenue (south intersection) and Fairglen Avenue.

Our assessment indicates the criteria as set out in the City's Traffic Calming Policy has not been satisfied. Therefore, traffic calming measures are not recommended on Corinthian Boulevard.

Transportation staff reviewed the feasibility of reducing the speed limit on Corinthian Boulevard from 40 km/h to 30 km/h. Our assessment indicates that warrant criteria for the reduction of the speed limit from 40 to 30 km/h is also not satisfied. Therefore, a reduction of the speed limit to 30 km/h is not recommended for Corinthian Boulevard, between Pharmacy Avenue (north intersection) and Pharmacy Avenue (south intersection).

Transportation staff also reviewed the feasibility of prohibiting U-turns on Corinthian Boulevard, between Pharmacy Avenue (south intersection) and Fairglen Avenue and determined that a U-turn prohibition will reduce conflicts between all users and improve safety along this section of Corinthian Boulevard in the vicinity of JB Tyrrell Senior Public School.

RECOMMENDATIONS

The Acting Director, Traffic Management, Transportation Services, recommends that:

1. Scarborough Community Council prohibit eastbound and westbound U-turn movements at all times on Corinthian Boulevard, between Pharmacy Avenue (south intersection) and Fairglen Avenue.
2. Scarborough Community Council not authorize the installation of traffic calming measures on Corinthian Boulevard, between Pharmacy Avenue (south intersection) and Fairglen Avenue.
3. Scarborough Community Council not reduce the speed limit from 40 km/h to 30 km/h on Corinthian Boulevard, between Pharmacy Avenue (north intersection) and Pharmacy Avenue (south intersection).

FINANCIAL IMPACT

The cost of installing U-turn prohibition signs will be approximately \$1,000, funding for which is available through within the Transportation Services 2020 Interim Operating Budget.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

Existing Conditions

- Corinthian Boulevard, between Pharmacy Avenue (north intersection) and Pharmacy Avenue (south intersection), is a two-way collector road.
- The pavement width is approximately 9.5 metres and the posted speed limit is 40 km/h.
- There are municipal sidewalks on both sides of this roadway and there is no TTC service along this roadway.

- The land use in the surrounding area consists mainly of single-family residential dwellings and an elementary school.

J B Tyrrell Senior Public School, 10 Corinthian Boulevard, is located on the south side of Corinthian Boulevard, west of Pharmacy Avenue and east of Fairglen Avenue.

Vision Zero – Toronto's Road Safety Plan

The City of Toronto is committed to eliminating traffic-related deaths and serious injuries on its roadways and protecting its most vulnerable road users (VRU), including pedestrians and cyclists. To help the City achieve that goal, City Council adopted the Vision Zero Road Safety Plan in July 2016, which was updated by City Council in July 2019 and is a comprehensive, city-wide strategy that includes many road safety countermeasures that address all road users, but with particular emphasis on VRU. "School Children" is one of six emphasis areas identified in the plan.

To improve safety in areas around schools, the City is designating school safety zones and community safety zones at all schools across the City, starting with elementary (grades K-8) schools. The school safety zones program involves the installation of various signs and pavement markings enhancements along frontages of schools within 150 metres of the school property, including new School Zone signs with flashing beacons, radar speed display signs (also referred to as driver feedback signs), "SCHOOL" and speed limit stencils painted on the roadway and zebra crossings at all stop-controlled intersections.

With regards to community safety zones, in 2018 City Council approved the designation of community safety zones within approximately 150 metres of the school property in front of all elementary schools.

To date, nine schools in Ward 22 have received school safety zone treatments and the above countermeasures have already been implemented. Currently, JB Tyrrell Senior Public School is ranked 24th among 33 schools identified in Ward 22 and school safety zone treatments are expected to be implemented in the future based on this ranking.

Analysis

Traffic Calming Warrants

Transportation Services conducted mid-block speed and volume studies on Corinthian Boulevard. The study found the vehicular operating speed on Corinthian Boulevard to be between 47 km/h and 49 km/h and the average daily traffic volume of approximately 2,285 vehicles.

The operating speed, also known as the 85th percentile speed, is the speed at which 85 percent of vehicles travel at or below. The study findings were assessed against the City of Toronto's Traffic Calming Policy and it was found that Corinthian Boulevard does not satisfy the installation criteria for traffic calming devices. More specifically, the recorded operating speed must be at least 10 km/h over the warranted 40 km/h speed limit.

The following table identifies the result of the studies:

Roadway	Speed Limit	Direction	85th percentile	Vehicle Volume	Warranted
Corinthian Blvd, between Pharmacy Ave (north int) and Hepscott Terrace (east int)	40	Eastbound	48 km/h	2,285	NO
		Westbound	45 km/h		
Corinthian Blvd, between Hepscott Terrace (west int) and Ferncrest Gate	40	Northbound	48 km/h	2,163	NO
		Southbound	50 km/h		
Corinthian Blvd, between Fairglen Ave and Pharmacy Ave (south int)	40	Eastbound	49 km/h	1,410	NO
		Westbound	49 km/h		

The warrants were not met based on the following criteria:

Speed: The operating speeds as noted above between Pharmacy Avenue (north intersection) and Pharmacy Avenue (south intersection) on Corinthian Boulevard are less than the required minimum 10 km/h over the warranted speed limit to satisfy the traffic calming installation criteria.

Volume: The traffic volume between Pharmacy Avenue (north intersection) and Pharmacy Avenue (south intersection) on Corinthian Boulevard are less than the required minimum traffic volume between 2,500 and 8,000 for a collector road. Therefore, the installation of traffic calming on Corinthian Boulevard, between Pharmacy Avenue (south intersection) and Fairglen Avenue, is not warranted.

The attached technical summary entitled "Appendix A Table 1: Traffic Calming Warrant Criteria – Corinthian Boulevard, outlines the results of our assessment.

30 km/h Speed Limit

Staff reviewed the feasibility of reducing the speed limit from 40 km/h to 30 km/h on Corinthian Boulevard. The City of Toronto's 30 km/h Speed Limit Policy allows 30 km/h speed limits on local and collector roads that abut schools.

The roadway environment warrant criteria dictates that road classification must be either local or collector, the pavement width must not be greater than 8.5 metres, the operating speed be no greater than 50 km/h and the daily traffic volume be no greater than 8,000 vehicles per day.

The 30 km/h warrant criteria was applied against Corinthian Boulevard. However, given that Road Environment failed to satisfy the requirements, specifically due to the road width being 9.5 metres wide which is greater than the required 8.5 metres or less, a 30 km/h speed limit is not recommended on Corinthian Boulevard, between Pharmacy Avenue (north intersection) and Pharmacy Avenue (south intersection). Current 40 km/h speed limit is consistent with recommended speed limits for collector roads from Vision Zero report.

Collision Analysis

A review of Toronto Police Service collision records for a three-year period ending December 31, 2018, did not find any reported collisions attributed to speeding on Corinthian Boulevard.

Alternate Recommendations

If, despite the findings above, the Scarborough Community Council determines that traffic calming should be installed, it may approve the following as to form:

1. Scarborough Community Council direct the Acting Director, Traffic Management, Transportation Services to request the City Clerk to poll eligible householders on Corinthian Boulevard, between Pharmacy Avenue (south intersection) and Fairglen Avenue. The poll is to determine whether residents support the installation of traffic calming, in accordance with the City of Toronto Traffic Calming Policy.
2. Subject to favourable results of the poll:
 - a. Scarborough Community Council authorize the installation of traffic calming (speed humps) on Corinthian Boulevard, between Pharmacy Avenue (south intersection) and Fairglen Avenue.
 - b. Scarborough Community Council direct the City Solicitor to prepare a by-law to alter the roadway of Corinthian Boulevard, between Pharmacy Avenue (south intersection) and Fairglen Avenue, for traffic calming purposes, generally as shown on the location Plan, attached to the report entitled "Attachment 3:

Location Plan: Traffic Calming Review and U-Turn Prohibition – Corinthian Boulevard from Fairglen Avenue to Pharmacy Avenue".

c. Scarborough Community Council reduce the speed limit from 40 km/h to 30 km/h on Corinthian Boulevard, between Pharmacy Avenue (north intersection) and Pharmacy Avenue (south intersection) in conjunction with the installation of speed humps set out in 2a above.

The estimated cost of installing speed humps on Corinthian Boulevard, between Pharmacy Avenue (south intersection) and Fairglen Avenue, is approximately \$12,000.00. Installation would be subject to availability in Transportation Services 2020 Capital Funding estimates and competing priorities.

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ATTACHMENTS

1. Attachment 1: Table 1: Traffic Calming Warrant Criteria – Corinthian Boulevard, between Pharmacy Avenue (north intersection) and Pharmacy Avenue (south intersection)
2. Attachment 2: 30 km/h Speed Limit Warrant for Corinthian Boulevard
3. Attachment 3: Location Plan: Traffic Calming Review and U-Turn Prohibition - Corinthian Boulevard from Fairglen Avenue to Pharmacy Avenue

Attachment 1: Table 1: Traffic Calming Warrant Criteria

Corinthian Boulevard, between Pharmacy Avenue (north intersection) and Pharmacy Avenue (south intersection)

All three of the following warrants must be achieved

Warrant	Criterion	Requirement	Warrant Satisfied	
Warrant 1 Petition	1.1 Petition	Petition signed by at least 25% of the households on the street and/or 10% multiple family rental dwellings	Yes	
Warrant 2 Safety Criteria [all three criteria must be fulfilled to satisfy warrant]	2.1 Sidewalks	Are there continuous sidewalks on at least one side of street [both sides for collector of higher classification] OR On streets where no sidewalks exist, installation of sidewalks on at least one side must first be considered	Yes	
	2.2 Road Grade	Road grade does not exceed 8% [Traffic calming measures must not be installed at or near these locations where grade exceeds 8%]	Yes	
	2.3 Emergency Response	Emergency Services have noted that the impact of traffic calming, specifically speed humps, will not significantly affect service delivery	N/A	
Warrant 3 Technical Requirement [all four criteria must be fulfilled to satisfy warrant]	3.1 Minimum Speed	The 85th percentile speed must be a minimum of 10 km/h over the warranted speed limit and the volume warrant [3.2] must be fulfilled*	No (47 - 49 km/h)	
	3.2 Traffic Volumes	Local Road Traffic volume must be between 1,000 and 8,000 vehicles per day	Collector Road Traffic volumes must be between 2,500 and 8,000 vehicles per day	No (2,285)
	3.3 Minimum Block Length	On streets where mid-block traffic calming measures are proposed, the minimum block length must exceed 120 metres	Yes	
	3.4 Transit Service	Impacts on regularly scheduled Toronto Transit Service vehicles will not be significant [as determined in consultation with TTC staff]	N/A	
Warranted [yes/no]			No	

Attachment – 2: 30 km/h Speed Limit Warrant for Corinthian Boulevard

30 km/h Speed Limit Warrant - Silver Springs Boulevard

- i. Implementation must be approved by Community Council.
- ii. 30 km/h speed limit can be implemented (without traffic calming) if either Warrants "B" and "C" are met **OR** "B" and "D" are met.
- iii. In situations where a road has existing scheduled transit service, staff will confirm that as a result of a speed limit reduction no significant impacts will be experienced by transit.

Warrant "A" – PETITION

Consideration of 30km/h speed limit on a street upon receipt of a petition signed by at least 25% of affected households (or 10% in the case of multiple family rental dwellings).

Warrants "B ", "C" and "D" will not be considered until Warrant "A" is satisfied.

ROAD ENVIRONMENT

Warrant "B" – ALL of the following criteria must be met

1. Local or Collector road	Yes / No
AND	
2. Pavement width less or equal to 8.5 metres	Yes / No
AND	
3. Operating speed 85 th percentile no greater than 50 km/h	Yes / No
AND	
4. Maximum traffic volume Local & Collector – less than 8,000 vehicles/day	Yes / No

SCHOOL AND CYCLING ENVIRONMENT

Warrant "C" – At least ONE of the following criteria must be met

1. Elementary or junior high school abuts the road - <i>(The 30 km/h maximum speed limit must extend at a minimum 150 metres beyond the boundary of school property and can be extended to include full road section)</i>	Yes / No
OR	
2. Improved parkland abuts the road that is contiguous to and used to gain access to an elementary or junior high school - <i>(The 30 km/h maximum speed limit must extend at a minimum 150 metres beyond the boundary of the parkland and can be extended to include full road section)</i>	Yes / No

OR	
3. Presence of cycling facilities identified by means of a contra-flow bicycle lane, mid-block sharrows or signed bicycle route	Yes / No <input type="radio"/>

PEDESTRIAN AND TRAFFIC ENVIRONMENT

Warrant "D" – At least <u>THREE</u> of the following criteria must be met	
1. Absence of continuous sidewalk on both sides of the road or major portion of the road	Yes / No <input type="radio"/>
OR	
2. 'Significant parking activity' that results in cars being parked most of the time on both sides of the road or parked on one side, and the pavement width is less than 6.5 metres	Yes / No <input type="radio"/>
OR	
3. 2 or more curves in short distance from each other (< 200 metres) with a safe operating speed less than 30 km/h	Yes / No <input type="radio"/>
OR	
4. Lack of sufficient safe stopping distance (65 metres) based on the operating speed of 40 km/h at two or more locations	Yes / No <input type="radio"/>

OVERALL WARRANT SUMMARY

Warrants "B" and "C" met OR "B" and "D" met	Yes / No <input type="radio"/>
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Attachment 3: Location Plan: Traffic Calming Review and U-Turn Prohibition - Corinthian Boulevard from Fairglen Avenue to Pharmacy Avenue

