



REPORT FOR ACTION

Traffic operations Review - Bridlewood Boulevard

Date: May 31, 2019
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, Bridlewood Junior Public School and residents' concerns regarding the speeds of vehicles on Bridlewood Boulevard, Transportation staff have reviewed the need for traffic calming on Bridlewood Boulevard, between Batterswood Drive and Acara Court to address speeds of vehicles on Bridlewood Boulevard. Our assessment indicates the criteria as set out in the traffic calming policy, Warrant 3, has not been satisfied. Traffic calming is not recommended on Bridlewood Boulevard.

Transportation staff have also reviewed the feasibility of reducing the existing speed limit from 40 km/h to 30km/h and the feasibility of prohibiting U-turns. Our assessment indicates that warrant criteria for the reduction of speed limit from 40 to 30 km/h is satisfied. Therefore, speed limit reduction of 30 km/h is recommended for Bridlewood Boulevard between Sheppard Avenue East and Huntingwood Boulevard. The installation of a U-turn prohibition on Bridlewood Boulevard, between Ravencliff Crescent and Acara Court will reduce conflicts between all roadway users to improve safety along this section of Bridlewood Boulevard in the vicinity of Bridlewood Junior Public School.

RECOMMENDATIONS

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

1. Scarborough Community Council not authorize the installation of traffic calming measures on Bridlewood Boulevard, between Batterswood Drive and Acara Court.

2. Scarborough Community Council reduce the speed limit from 40 km/h to 30 km/h on Bridlewood Boulevard, between Sheppard Avenue East and Huntingwood Boulevard.
3. Scarborough Community Council prohibit north/eastbound and south/westbound U-turn movements at all times on Bridlewood Boulevard, between Ravenscliff Crescent and Acara Court.

FINANCIAL IMPACT

The cost of installing the 30 km/h speed limit signs and No U-Turn signs is approximately \$3,000, funding for which is available within the Transportation Services 2019 Operating Budget.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

As a result of requests received from the councillor's office on behalf of Bridlewood Junior Public School and residents, Transportation Services staff reviewed Bridlewood Boulevard to determine the feasibility of installing traffic calming, whether a reduction of the speed limit from 40 km/h to 30 km/h is justified and the prohibition of U-turns along the school zone.

Existing Conditions

- Bridlewood Boulevard is a two-way collector road with a posted speed limit of 40 km/h.
- The pavement width is approximately 8.5 metres.
- There are municipal sidewalks along both sides of the road and there is no TTC service along Bridlewood Boulevard.
- All-way stops signs are located on Bridlewood Boulevard at Batterswood Drive and Bowater Drive.
- The land use on Bridlewood Boulevard consists mainly of single residential dwellings and a school zone with access to a park.

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 approved the Vision Zero Road Safety Plan in July 2016, which is a comprehensive, city-wide strategy that includes many road safety countermeasures that addresses 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 implementing 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 150m 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, Bridlewood Junior Public School is ranked 12th among 33 schools identified in Ward 22. School Safety Zone treatments namely School Area Signs with flashing beacons, Watch Your Speed signs (if applicable) and pavement markings by way of stencils and zebra crosswalks are expected to be implemented in the future.

Analysis

Traffic Calming Warrants

To address speeding concerns on Bridlewood Boulevard, 24 hour vehicle volume and speed studies were conducted. Study data was applied to the City of Toronto Traffic Calming Warrant Criteria which revealed that traffic calming measures are not warranted on Bridlewood Boulevard. Details of the Traffic Calming Warrant Criteria analysis are included in Attachment 1 - Table 1.

The results of the speed studies are summarized in the following table:

Roadway	Speed Limit	Direction	85th Percentile	Vehicle Volume
Bridlewood Boulevard, between Sheppard Avenue East and Ravenscliff Crescent.	40	Combined	54 km/h	1,666
Bridlewood Boulevard, between Wicklow Drive (East Intersection) and Hatchford Court.	40	Combined	47 km/h	1,422
Bridlewood Boulevard, between Redcastle Crescent (North Intersection) and Evansway Street.	40	Combined	51 km/h	1,056

Staff applied this data to the City of Toronto Traffic Calming Policy. According to the policy, the principle criteria for installing physical traffic calming are vehicle speed and volume. Other environmental factors are considered, such as road width, pedestrian facilities and grade. The proposal was evaluated under these technical criteria, with the results summarized in Attachment 1 - Table 1. Applying the study data to the Traffic Calming Warrant shows that Bridlewood Boulevard does not satisfy the criteria for physical traffic calming.

30 km/h Warrant Criteria

Staff also reviewed the feasibility of reducing the speed limit to 30km/h. The City of Toronto's 30 km/h speed limit policy allows 30 km/h speed limits on local and collector roads that abuts schools. The technical road environment warrant criteria must also be met which dictates that the road classification must be either local or collector, the pavement width must not be greater than 8.5 metres, the operating speed being no greater than 50 km/h and the daily traffic volume be no greater than 8,000 vehicles per day.

Bridlewood Boulevard between Sheppard Avenue and Huntingwood Drive satisfies all the criteria for a 30 km/h speed limit given the presence and direct access to an elementary school and a park, a collector road classification, the existing road width of 8.5 metres, an operating speed under 50 km/h and daily traffic volume that is less than 8,000 vehicles per day.

Given that all criteria for the 30 km/h speed limit are met, staff recommend reducing the speed limit to 30 km/h on Bridlewood Boulevard between Sheppard Avenue East and Huntingwood Drive. Details of the 30 km/h Warrant Criteria analysis are included in Attachment 2 - Table 2.

U-Turn Prohibition

Considering that this is a school zone with access to a park nearby, to complement the existing parking regulations already in place and curves in the road in advance of the school and park, prohibiting U-turns on Bridlewood Boulevard between Ravenscliff Crescent and Acara Court is feasible and will improve safety for all road users by minimizing vehicular conflicts, allow for enforcement by Toronto Police Service, and bring this community one step closer to the City wide "Vision Zero" initiative.

Furthermore, this School Zone on Bridlewood Boulevard between Ravenscliff Crescent and Acara Court was recently designated as a Community Safety Zone.

Collision Analysis

A review of Toronto Police Services collision records available for a three-year period ending December 31, 2017, did not find any reported speed related collisions, collisions involving vehicles making U-turns or collisions involving pedestrians/cyclists crossing Bridlewood Boulevard.

Alternate Recommendations

If, despite the findings above, the Scarborough Community Council recommends installing traffic calming on Bridlewood Boulevard, it may approve the following as to form:

1. Scarborough Community Council direct the Acting Director of Traffic Management, Transportation Services, to request the City Clerk to poll eligible householders on Bridlewood Boulevard, between Batterswood Drive and Acara Court. 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, the Scarborough Community Council:
 - (a) authorize the installation of traffic calming (speed humps) on Bridlewood Boulevard between Batterswood Drive and Acara Court; and
 - (b) direct the City Solicitor to prepare a by-law to alter the roadways of Bridlewood Boulevard, between Batterswood Drive and Acara Court, for traffic calming purposes, generally as shown on the location plan found in Attachment 3 to this report.

The estimated cost of installing the speed humps on Bridlewood Boulevard, between Batterswood Drive and Acara Court is approximately \$12,000.00. The installation of speed humps on the subject roadway would be subject to availability in Transportation Services' 2019 Capital Funding estimates and competing priorities.

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ATTACHMENTS

1. Attachment 1 - Table 1: Traffic Calming Warrant Criteria Bridlewood Boulevard
2. Attachment 2 - Table 2: 30 km/h Warrant Criteria Bridlewood Boulevard
3. Attachment 3 - Traffic Calming, Speed Limit and U-Turn Prohibition Review - Bridlewood Boulevard

Attachment 1 - Table 1: Traffic Calming Warrant Criteria Bridlewood Boulevard

Bridlewood Boulevard, between Batterswood Drive and Acara Court

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		No
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*		Yes (average 51 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 (average 1,381 vpd) Collector Road
	3.3 Minimum Block Length	On streets where mid-block traffic calming measures are proposed, the minimum block length must exceed 120 metres		No
	3.4 Transit Service	Impacts on regularly scheduled Toronto Transit Service vehicles will not be significant [as determined in consultation with TTC staff]		No
Warranted [yes/no]				No

Attachment 2 - 30 km/h Warrant Criteria - Bridlewood Boulevard

Bridlewood Boulevard, between Sheppard Avenue East and Huntingwood 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 30 km/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).

☒ Yes ☐ No

Warrant "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 (The 30 km/h maximum speed limit must not extend no less than 150 metres beyond the boundary of the school property)	☒ Yes ☐ No
OR	
2. Parkland abuts the road that is contiguous to and used to gain access to an elementary or junior high school (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)	☒ 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

Attachment 2 - 30 km/h Warrant Criteria - Bridlewood Boulevard Continued

PEDESTRIAN AND TRAFFIC ENVIRONEMENT

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
OR	
2. 'Significant parking activity' that results in cars being parked most of the time on both sides of the road or parking on one side, and the pavement width is less than 6.5 metres	Yes ☐ No ☒
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 ☒
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 ☒

OVERALL WARRANT SUMMARY

Warrants "B" and "C" met OR "B" and "D" met	Yes ☒ No
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- Note:**
Warrant "B" and "C" will be met once the petition is received to reduce the speed limit.

Attachment 3 - Traffic Calming, Speed Limit and U-Turn Prohibition Review - Bridlewood Boulevard:

