

REPORT FOR ACTION

Speed Limit on Bayview Avenue from Pottery Road (Northerly Intersection) to River Street Ramp

Date:	October 3, 2017
То:	Public Works and Infrastructure Committee
From:	General Manager, Transportation Services
Wards:	26, 27, 28, 29

SUMMARY

In July 2016, City Council unanimously endorsed the Vision Zero Road Safety Plan (RSP) 2017-2021, which included the reduction of the regulatory speed limit on various streets including Bayview Avenue, between Pottery Road (northerly intersection) and River Street Ramp, from 60 km/h to 50 km/h.

While this speed limit reduction was made as part of the Road Safety Plan, this section was one of 18 road segments identified where changes were recommended not from a collision history perspective, but to improve consistency with adjacent sections of the same road.

Following installation of 50 km/h speed limit signs on June 6, 2017, concerns have been expressed about the disparity between the speed limit and the speeds at which drivers are travelling.

Based on a speed study and a review of the design of the roadway, collision history, and the existing road environment, staff have determined that a speed limit of 60 km/h is more appropriate for Bayview Avenue from Pottery Road to River Street Ramp.

RECOMMENDATIONS

The General Manager, Transportation Services recommends that City Council:

1. Designate a 60 km/h speed limit on Bayview Avenue, from Pottery Road (northerly intersection) to River Street Ramp.

FINANCIAL IMPACT

The cost to change the speed limit to 60km/hr on this section of Bayview Avenue is approximately \$3,000, based on the provision of 13 new speed limit signs at a unit cost of \$225 per sign.

Funding is available within the 2017 Operating Budget for Transportation Services.

The Deputy City Manager & Chief Financial Officer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

At its meeting of June 22, 2011, Toronto and East York Community Council adopted Item TE8.65 entitled "Speed Limit Reduction and Road Alteration - Bayview Avenue South of Pottery Road" and, in so doing, approved the removal of the centre median and reduction of the speed limit from 70 km/h to 60 km/h on Bayview Avenue, from Pottery Road (southerly intersection) to Rosedale Valley Road. The Community Council decision can be found at:

http://app.toronto.ca/tmmis/viewAgendaltemHistory.do?item=2011.TE8.65

At its meeting of July 12, 13, 14 and 15, 2016, City Council adopted, as amended, Public Works and Infrastructure Committee Item PW14.1 entitled "Road Safety Plan 2017-2021" and, in so doing, endorsed in principle the Road Safety Plan (2017-2021) and the countermeasures and enhanced Road Safety Plan identified within the supplementary report dated July 11, 2016. The report outlines the proposed safety countermeasures that will be implemented over a five (5) year period, including the reduction of the speed limit on Bayview Avenue between Pottery Road (northerly intersection) and River Street Ramp from 60 km/hr to 50 km/hr. The Council decision can be found at:

http://app.toronto.ca/tmmis/viewAgendaltemHistory.do?item=2016.PW14.1

COMMENTS

Background

Bayview Avenue, between Pottery Road (northerly intersection) and River Street Ramp, is a 4-lane, major arterial road which carries a daily traffic volume of up to 39,000 vehicles per day.

In June 2011, Toronto and East York Community Council approved the reduction of the speed limit on Bayview Avenue, from Pottery Road (southerly intersection) to Rosedale Valley Road, from 70 km/h to 60 km/h and the removal of the concrete centre median along that section of road. The median was removed to accommodate the installation of barriers and a multi-use trail for cyclists and pedestrians on the east side of Bayview

Avenue that connected various trail and pedestrian and cyclist infrastructure improvements along this road.

The reduced 60 km/h speed limit was deemed appropriate for this section of Bayview Avenue in 2011, given the pedestrian and cyclist improvements and the expected increase in pedestrian and cyclist activity, and the reduction made this section consistent with the 60 km/h speed limits on Bayview Avenue, north of Pottery Road (southerly intersection) and south of Rosedale Valley Road. The speed limits on Bayview Avenue before and after June 2011 are shown in Figures 1 and 2 below.

In July 2016, the Road Safety Plan called for the reduction of speed limits on various streets to improve safety for vulnerable road users and to create a more comfortable pedestrian and cycling environment.

Whilst the majority of streets approved for reduced speed limits in the Road Safety Plan were selected based on pedestrian KSI (killed and seriously injured) collision history, an additional 18 sections were converted to make them consistent with adjacent sections of the same road. This included reducing the speed limit on Bayview Avenue from Pottery Road (northerly intersection) to River Street Ramp from 60 km/h to 50 km/h to match the 50 km/h speed limits north of Pottery Road (northerly intersection) and south of River Street Ramp, as shown in Figure 3 below.

Subsequent to the installation of 50 km/h speed limit signs on June 6, 2017, local Councillors expressed concerns to staff about the disparity between operating speeds and the speed limit.



Investigation and Findings

Staff have conducted a review of the roadway which included undertaking speed studies, and looking at the road design, road environment and collision history, in order to determine the most appropriate regulatory speed limit.

Speed Studies

Staff conducted speed studies from August 15-16, 2017 along Bayview Avenue, at three locations, including between Pottery Road (southerly intersection) and the Don Valley Parkway/Bloor Street Ramp, between the Don Valley Parkway/Bloor Street

Ramp and Rosedale Valley Road and between Rosedale Valley Road and River Street Ramp, as shown in the map in Attachment 1. The results are depicted in Table 1 below:

Table 1. Speed Study Results on Bayview Avenue
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SECTION OF BAYVIEW AVENUE	TOTAL TWO-WAY 24-HOUR VOLUME*	OPERATING SPEED (KM/H)	SPEED LIMIT (KM/H)	DIFFERENCE (KM/H)
Pottery Road (southerly intersection) to Don Valley Parkway/Bloor Street Ramp	23,300	76	50	26
Don Valley Parkway/Bloor Street Ramp to Rosedale Valley Road	30,000	80	50	30
Rosedale Valley Road to River Street Ramp	18,800	74	50	24

* Seasonal traffic volumes during summer in July and August are typically lower

The studies confirmed that there is currently a differential of 24 to 30 km/h between the operating speed and the regulatory speed limit. Significant differentials in speed are not desirable as they can lead to aggressive driving, rear-end collisions and potentially make the road environment less safe for vulnerable road users crossing at intersections.

In addition, more detailed examination of the speed data shows that a greater percent of traffic travels between 60- >70 km/h compared to the percent of traffic travelling below 60 km/h. This suggests that a 60 km/h or 70 km/h speed limit would be more appropriate than the currently regulated 50 km/h. This is shown in Table 2 below.

Table 2. Breakdown of Operating Speeds along Bayview

SECTION OF BAYVIEW AVENUE	% TRAFFIC < 60 KM/H	% TRAFFIC 60-70 KM/H	% TRAFFIC > 70 KM/H
Pottery Road (southerly intersection) to Don Valley Parkway/Bloor Street Ramp	25	44	31
Don Valley Parkway/Bloor Street Ramp to Rosedale Valley Road	12	38	50

SECTION OF BAYVIEW AVENUE		% TRAFFIC 60-70 KM/H	
Rosedale Valley Road to River Street Ramp	28	48	24

Road Design

Staff conducted a field visit and noted the following design features:

- Presence of roadside steel beam guiderail crash barriers along most of the roadway to deflect vehicles from leaving the roadway;
- Ramped freeway-style interchange with Don Valley Parkway/Bloor Street;
- Use of paved shoulders on both sides instead of concrete curbs to denote the edge of pavement;
- Lack of intersections and driveway entrances (with the exception of three intersections at Pottery Road, Evergreen Brick Works entrance and River Street Ramp), that results in free flow conditions for the majority of the road;
- Lane widths ranging from 3.2 metres up to 3.7 metres.

Based on the observations made, this section of Bayview Avenue exhibits road design features more commonly associated with roadways with speed limits higher than 50 km/h.

Road Environment

As part of the field investigation, staff also noted the following characteristics from a road environment perspective:

- Presence of dedicated off-road pedestrian and cyclist facility in the form of a multiuse trail protected by steel beam guiderail crash barrier along most of the section;
- Absence of sidewalks on either side of the road;
- Absence of vulnerable road users on the roadway;
- Lack of public transit stops;
- Lack of development and adjacent land use throughout is primarily parkland and ravine.

This review indicates that a 50 km/h speed limit is not appropriate for this section of road and that the characteristics support a higher speed limit of 60km/h or 70 km/hr. However, posting the speed limit at 70 km/h could encourage drivers to operate at even higher speeds and therefore staff are recommending that a 60 km/h speed limit would more appropriate.

Collision Data

This road segment was identified as a candidate location for speed reduction to improve consistency with adjacent sections of the same road as there were no KSI collisions found during the original study assessment period from 2013 to 2016. Based on more recent data, there has been one KSI collision that occurred in July, 2017, however, it

was not speeding related. The fatal collision event involved a northbound driver exiting from the Don Valley Parkway/Bloor Street Ramp, making an improper U-turn and sideswiping a northbound motorcyclist.

Based on this updated review, the collision history does not indicate any potential negative impacts associated with the speed limit being set at 60 km/h.

Conclusions

Speed studies confirm that since the speed limit was reduced from 60 km/h to 50 km/h on Bayview Avenue, between Pottery Road (northerly intersection) and River Street Ramp, there is a differential of 24-30 km/h between the operating speeds and the speed limit. Larger differences between operating speeds and regulatory speed limits are associated with a higher safety risk.

Based on a review of the road design and environment, this section of Bayview Avenue does not reflect a typical roadway with a speed limit of 50 km/h. The roads characteristics suggest the previous 60 km/h speed limit was more appropriate. This change will reduce the speed differential and therefore lower the safety risk. Accordingly, it is recommended that the previous speed limit of 60 km/h be restored on this section of Bayview Avenue. This will result in speed limits for Bayview Avenue as shown above in Figure 2.

CONTACT

Myles Currie Director, Traffic Management Centre Transportation Services Division Tel: (416) 392-5372 Email: Myles.Currie@toronto.ca

SIGNATURE

Barbara Gray General Manager, Transportation Services

ATTACHMENTS

Attachment 1: Map of Speed and Volume Counts on Bayview Avenue