

All-way Stop Control - Northcliffe Boulevard and Keywest Avenue

Date: April 3, 2019
To: Toronto and East York Community Council
From: Acting Director, Traffic Management, Transportation Services
Wards: Ward 12, Toronto - St. Paul's

SUMMARY

This staff report is about a matter that Community Council has delegated authority to make a final decision, provided that it is not amended so that it varies with City Policy or by-laws.

Transportation Services staff have reviewed the need for an all-way stop control at the intersection of Northcliffe Boulevard and Keywest Avenue, to address residents' concerns regarding safety. Our assessment indicates the criteria as set out in the all-way stop warrant has been satisfied at this intersection. Therefore, all-way stop control should be installed at the intersection of Northcliffe Boulevard and Keywest Avenue.

RECOMMENDATIONS

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

1. Toronto and East York Community Council authorize all-way compulsory stop control at the intersection of Northcliffe Boulevard and Keywest Avenue.

FINANCIAL IMPACT

The cost for the installation of additional stop sign in the amount of \$500.00 is included in the Transportation Services 2019 Operating Budget. Installation of pavement markings and pedestrian ramps will be included with the reconstruction of this intersection which is scheduled for later this year.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

Transportation Services was requested by local residents to investigate the feasibility of installing all-way stop control at the intersection of Northcliffe Boulevard and Keywest Avenue.

Existing Conditions

Northcliffe Boulevard is a one-lane local road which operates one-way northbound, with a speed limit of 30 km/h south and 40 km/h north of Keywest Avenue. Northcliffe Boulevard is free-flow at its intersection with Keywest Avenue. Curb extensions are installed, immediately north and south of the intersection, resulting in the road width narrowing from 7.3 metres to 4.2 metres. Sidewalks are provided on both sides, north of the intersection, and on the west side only, south of the intersection. On the northbound approach to the intersection, the road has an uphill grade of approximately 12.0%. There is no TTC service provided on Northcliffe Boulevard.

Keywest Avenue is a two-lane local road which operates two-way east-west with a speed limit of 40 km/h west of Northcliffe Boulevard and a regulatory speed limit of 50 km/h east of Northcliffe Boulevard. Keywest Avenue is stop-controlled at its intersection with Northcliffe Boulevard. The road width is 7.3 metres and sidewalks are provided on both sides. There is no TTC provided on Keywest Avenue.

The nearest pedestrian crossings on Northcliffe Boulevard are located approximately 195 metres to the north at Vaughan Road, and approximately 285 metres to the south at Amherst Avenue. The land use in the vicinity of this intersection is primarily residential.

Analysis

This intersection was evaluated against the warrants for the implementation of all-way stop control as adopted by City Council. The warrants governing the installation of all-way stop control encompasses such factors as right-of-way conflicts, vehicle and pedestrian usage of the intersection, physical and geometric configuration, surrounding traffic control and collision experience.

A review of Toronto Police Service collision records for the three-year period ending January 31, 2019, disclosed that eleven collisions had occurred at the intersection of Northcliffe Boulevard and Keywest Avenue, eight of which were susceptible to correction by the use of all-way stop control. Of these eight collisions, none involved a cyclist and one involved a pedestrian. The pedestrian was crossing Northcliffe Boulevard on the north side of the intersection when an eastbound left-turning vehicle struck the pedestrian's arm. The pedestrian sustained minor injuries and did not go to hospital. Further review of the eleven collisions disclosed that nine can be considered to be potentially preventable by the installation of all-way stop control.

Based on the information obtained through an October 2018 traffic volume count at this intersection, as well as the collision data, the intersection was evaluated against the installation warrants for all-way stop control. The results are summarized in Table 1, below:

Table 1 - All-way Stop Control Warrant

Warrant A: Collision History	Warrant B-1A: Total Approach Vehicular Volume	Warrant B-1B: Combined Crossing Volume (Vehicles & Pedestrians)	Warrant B-2: Main Street/ Side-Street Volume Split	All-way Stop Warrants Satisfied (Yes/No)
Required: ≥ 2 Collisions/Year Actual: 2.67 Collisions/year (Met)	Required: 250 Vehicles/ Hour Actual: 300 Vehicles/Hour (Met)	Required: 100 Units/Hour Actual: 291 Units/Hour (Met)	Required: $\leq 70\%/30\%$ Actual: 24%/76% (Met)	Yes

Although Northcliffe Boulevard has a significant 12% uphill grade on approach to Keywest Avenue, this should not adversely affect stopping conditions for northbound vehicles. Other locations within the City, such as Ellis Park Road and Ellis Avenue, have approach grades similar to this location and are operating effectively. Considering the large volume of east-west traffic, low volume of northbound traffic and the recent collision history, implementing all-way stop control will not cause significant delay to northbound traffic and will improve safety for all road users by more clearly allocating right-of-way. The City's Cycling Infrastructure & Programs Unit is proposing installation of a bicycle facility on this segment of Northcliffe Boulevard. Additionally, this intersection will be reconstructed later this year. All-way stop control will improve operations and safety for all current and future road users of this intersection.

Based on the above review, the technical warrants for the installation of compulsory all-way stop control at the intersection of Northcliffe Boulevard and Keywest Avenue are satisfied and the requested installation of an all-way stop control at this intersection is recommended.

Councillor Josh Matlow has been advised of the recommendation of this staff report.

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SIGNATURE

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ATTACHMENTS

1. Drawing No. 421G-3340, dated March 2019

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