



ROADS, PARKS AND FLEET DEPARTMENT MEMORANDUM

TO: MAYOR J. LEHMAN, AND MEMBERS OF COUNCIL

FROM: J. MACDONALD, C.E.T., SENIOR TRANSPORTATION OPERATIONS TECHNOLOGIST

NOTED: D. FRIARY, DIRECTOR OF ROADS, PARKS AND FLEET
R. FORWARD, MBA, M.Sc., P. Eng., GENERAL MANGER OF INFRASTRUCTURE AND GROWTH MANAGEMENT
M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

RE: ALL-WAY STOP INVESTIGATION – PRINGLE DRIVE AND RUFFET DRIVE

DATE: NOVEMBER 27, 2017

The purpose of this Memorandum is to provide members of Council a response to pending item P28/15, motion 15-G-207 regarding the investigation for an All-Way Stop at the intersection of Pringle Drive and Ruffet Drive which states:

“That staff in the Roads, Parks, and Fleet Department investigate the feasibility of installing an all-way stop at the intersection of Pringle Drive and Ruffet Drive and report back to General Committee in accordance to the All-Way Stop Policy.”

Pringle Drive, as seen in Appendix “A”, is a two (2) lane collector roadway with a pavement width of 11.0 metres, sidewalks on both sides, and traffic volumes of 3,400 vehicles per day. There are currently all-way stops located at the intersection of Pringle Drive and Edgehill Drive, and at Pringle Drive and Sproule Drive.

Ruffet Drive is a two (2) lane local roadway with a pavement width of 8.5 metres, a sidewalk on the south side, and traffic volumes of 800 vehicles per day. Ruffet Drive is currently under stop control at Pringle Drive.

Staff have investigated the intersection of Pringle Drive and Ruffet Drive to determine if an all-way stop is warranted based on criteria within the Ontario Traffic Manual (OTM) Book 5 – Regulatory Signs.

The OTM warrant is based on volume, collision history, and stopping sight distance of the intersection.

- **Volume** - the total number of vehicles entering an intersection during the peak hour as well as the percentage of vehicles on the minor street during the peak hour.
- **Collision History** - reviews collisions over a three-year period, which are only correctable through all-way stop control (i.e. right angle and turning type collisions) and which are reported to the Barrie Police Service.
- **Stopping Sight Distance** - the distance required for a driver to see ahead in order to stop if necessary. Each component of the All-Way Stop Warrant has the ability to satisfy the warrant independently.



ROADS, PARKS AND FLEET DEPARTMENT MEMORANDUM

A traffic count was completed on March 2, 2017 for the purpose of completing an all-way stop warrant. The results of the investigation are summarized below:

Description	All-Way Warrant	Recorded Data	Satisfied All-Way Warrant	
			Yes	No
Part 1a – Total Volume Peak Hour Traffic Volume ⁽¹⁾	Greater than 350 vehicles in peak hour	212 vehicles in the peak hour		X
Part 1b – Volume Split Percentage of Traffic on Ruffet Drive (Minor Street)	Greater than 35%	65 vehicles (31%)		
Part 2 – Collisions Intersection Collision History	Average 4 per year over 3 years	0 collisions over a 3 year period		X
Part 3 – Visibility Stopping Sight Distance from Ruffet Drive	Less than 65m	No restrictions		X

⁽¹⁾ Peak Hour Volume is the maximum number of vehicles that pass through the intersection during a one hour period.

Staff have prepared a questionnaire regarding the possible installation of an All-Way stop at Pringle Drive and Ruffet Drive that was mailed to 56 property owners/tenants to select a preferred option. Fifteen (15) responses were received and the results of the survey are below:

PRINGLE DRIVE AND RUFFET DRIVE ALL-WAY STOP INVESTIGATION	RESPONSES RECEIVED IN FAVOUR	PERCENTAGE OF RESPONSES
Option “A” – If minimum warrants are NOT SATISFIED using the All-Way Stop criteria in the Ontario Traffic Manual leave as is (traffic along Ruffet Drive stops at Pringle Drive)	8	50%
Option “B” – If minimum warrants are SATISFIED using the all-way stop criteria in the Ontario Traffic Manual install an All-Way Stop at Pringle Drive and Ruffet Drive	8	50%

Staff have reviewed the intersection of Pringle Drive and Ruffet Drive for the installation of an all-way stop. Based on the results of the investigation an all-way stop is not warranted to be installed as minimum warrants are not satisfied.

Residents expressed concerns regarding vehicles speeding along Pringle Drive and noted the implementation of a stop sign may discourage this. Staff considered this concern however do not support the installation of an all-way stop to address speed concerns. There is a common misconception that stop signs control or slow speed. Provincial regulations clearly state that an all-way stop control should not be used as a device to control vehicle speeds.

Numerous studies have shown that the implementation of an all-way stop does not affect excessive speeding; speeds are affected within approximately 30 metres of the stop location, as vehicles are required to stop. Speeds outside of the 30-metre range usually increase as some drivers attempt to make up for lost time at unwarranted stop locations.



ROADS, PARKS AND FLEET DEPARTMENT MEMORANDUM

In discussions with the Ward Councilor, staff reviewed all of the adjacent accesses into the neighbourhood to determine if there was consistent travel patterns for vehicles entering and exiting. As a result, it was determined that all access points into the subdivision have anticipated traffic volumes based on the roadway classification:

- Jagges Drive south of Edgehill (local roadway) – 2,550 vehicles per day;
- Pringle Drive south of Edgehill Drive (collector roadway) – 3,400 vehicles per day;
- Ruffet Drive west of Miller Drive (local roadway) – 325 vehicles per day; and
- Sproule Drive west of Miller Drive (collector roadway) – 2,300 vehicles per day.

These traffic volumes on Jagges Drive, Ruffet Drive (west of Miller Drive), and Sproule Drive are anticipated to be lower since:

- Jagges Drive south of Edgehill Drive provides access to the north east portion of the subdivision;
- Ruffet Drive west of Miller Drive provides limited access as it connects to Pringle Drive; and
- Sproule Drive west of Miller Drive provides access to the west side of the subdivision.

These alternative access points provide sufficient alternative access into the subdivision which alleviates traffic volume from the intersection of Pringle Drive and Ruffet Drive. Once the extension of Sproule Drive is connected to Ferndale Drive traffic volumes along Pringle Drive and Ruffet Drive will also decrease as the connection to Ferndale Drive will provide a direct east/west connection which is not currently available.

As part of the City's temporary traffic calming project, a temporary median island was installed on Pringle Drive between Edgehill Drive and Ruffet Drive to address the speeding concern for 2017.

Staff have requested speed enforcement from the Barrie Police Services.

Please contact Dave Friary, Director of Roads, Parks and Fleet at extension 4848 or Justin MacDonald, Senior Transportation Operations Technologist at extension 5178 for further information.

APPENDIX "A"

