



## DEVELOPMENT SERVICES MEMORANDUM

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**TO:** MAYOR, J. LEHMAN AND MEMBERS OF COUNCIL

**FROM:** M. KAVECKAS, TRANSPORTATION OPERATIONS TECHNOLOGIST  
EXT. 4876

**NOTED:** M. BANFIELD, RPP, DIRECTOR OF DEVELOPMENT SERVICES  
  
B. ARANIYASUNDARAN, P.ENG., PMP, GENERAL MANAGER OF  
INFRASTRUCTURE AND GROWTH MANAGEMENT  
  
M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

**RE:** ALL-WAY STOP INVESTIGATION – GOLDEN MEADOW ROAD AND  
RIVER RIDGE ROAD (WARD 10)

**DATE:** MARCH 28, 2022

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The purpose of this Memorandum is to provide members of Council with a response to council motion 21-G-180, Installation of a Stop Sign at the Intersection of Golden Meadow Road and River Ridge Road, "That staff in Development Services Department investigate the feasibility of installing a stop sign at the intersection of Golden Meadow Road and River Ridge Road, including any cost associated with line painting of white lines indicating the stop sign and report back to General Committee."

The existing traffic operations at Golden Meadow Road (Minor Collector) and River Ridge Road (Local) require vehicles travelling west on River Ridge Road to stop at Golden Meadow Road. Please refer to Appendix "A" for a map of the study area.

Staff have investigated the intersection of Golden Meadow Road and River Ridge Road 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 at the intersection. There are two classes of Warrants identified in the OTM, and each are based on the classifications of roadways; Minor Roadways (locals) and Major Roadways (collectors and arterials). Road classification is determined by using the City of Barrie Official Plan, Schedule D – Road Plan.

Golden Meadow Road is classified as a Minor Collector. However, the road operates as a Local and the vehicle volume reflects this. Based on the classification of Golden Meadow Road and River Ridge Road being Local roads, the Minor Roadways warrant is used. Each component of the All-Way Stop Warrant can satisfy the warrant independently.

- **Volume** - The total vehicle volume on all approaches exceeds 350 vehicles for the highest hour recorded in the 8-hour count, and the volume split does not exceed 75/25 for three-way control;
- **Collision History** – Reviews high collision frequency. There must be an average of four collisions per year over a three-year period. Only collisions that are correctable through All-Way Stop control (i.e., right angle and turning type collisions) and reported to the Barrie Police Service are considered for the review; and
- **Stopping Sight Distance** - The distance required for a driver to see ahead to stop if necessary.

An 8-hour Turning Movement Count was completed October 14, 2021, for the purpose of completing an All-Way Stop warrant. The results of the investigation are summarized below:



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Description	All-Way Warrant	Recorded Data	Satisfied All-Way Warrant	
			Yes	No
<b>Part 1a – Total Volume</b> Hourly Traffic Volume	Greater than 350 vehicles in the peak hour	131 vehicles in the peak hour		
<b>Part 1b – Side Street Volume</b> Volume of Traffic on River Ridge Road (Minor Street)	Volume split does not exceed 72/25 at the intersection	24 vehicles on side street (82/18)		X
<b>Part 2 – Collisions</b> Intersection Collision History	Average 4 per year over 3 years	0 collisions over a 3-year period		X
<b>Part 3 – Visibility</b> Stopping Sight Distance from River Ridge Road	Less than 105m	No restrictions		X

An All-Way Stop questionnaire survey was prepared and mailed to 25 property owners on Golden Meadow Road and River Ridge Road. See table below for results of the survey.

Golden Meadow Road and River Ridge Road All-Way Stop Survey	Response Received	Percentage of Responses
<b>Option A</b> - Leave as is (traffic along River Ridge Road stops at Golden Meadow Road)	2	50%
<b>Option B</b> – Install an All-Way Stop at Golden Meadow Road and River Ridge Road.	2	50%
<b>TOTAL</b> (Out of 25)	<b>4</b>	<b>16%</b>

### All-Way Stop Analysis

Staff have identified through the Turning Movement Count the peak hour was in the p.m. at 4:45 p.m. to 5:45 p.m., with 131 vehicles entering the intersection. There were 107 vehicles entering northbound and southbound (Golden Meadow Road) and 24 vehicles entering westbound (River Ridge Road). This gives the intersection a volume split of 82/18 (82% on the major street, 18% on the minor street). The total volume in Part 1a and the volume split in Part 1b are short of meeting the warrants criteria; therefore, this does not satisfy the intersection volume warrant, at this time.

Staff investigated the collision history and found there were zero correctable collisions in the past 3 years, taken from January 1, 2019, to the current date. Staff have also made site visits at the intersection to analyze if vehicles stopped westbound at the current stop control (River Ridge Road) had sight line restrictions. Staff found that there were no restrictions, and motorists had clear vision to proceed into the intersection when safe to do so.

Staff reviewed the results and comments from the survey, which was sent to area residents of the intersection. The survey was sent to 25 properties and received four responses (16% participation). There were two responses in favour of the installation of an All-Way Stop and two responses to leave the existing conditions. The responses in favour of the All-Way Stop had concerns that there should be stop control for northbound and southbound on Golden Meadow Road due to traffic coming off Hurst Drive and which vehicle speeds are too high. Staff have taken this into consideration; however, Stop Signs are used to clearly assign the right-of-way travel and to not used as traffic calming measures. OTM Book 5 states:

“All-way stop controls should not be used under the following conditions:



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- As a speed control device.”

### **Pavement Marking Analysis**

It is not common practice in the City of Barrie that stop bars and crosswalk lines are installed on local-to-local roadways without full stop control. Staff have found that this type of application can have a negative effect, as there are unprotected vehicle turning movements and, with the additional pavement markings, this can give pedestrians a false sense of security when crossing the road.

Based on the data provided through the All-Way Stop Warrant, analyzing resident comments and Staff's site observations, an All-Way Stop is not warranted, at this time. Staff will continue to monitor traffic operations and safety at the intersection of Golden Meadow Road and River Ridge Road.

APPENDIX "A"

