



**DEVELOPMENT SERVICES  
MEMORANDUM**

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**TO: GENERAL COMMITTEE**

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

**NOTED: M. BANFIELD, RPP, DIRECTOR OF DEVELOPMENT SERVICES**

**A. MILLER, RPP, GENERAL MANAGER OF INFRASTRUCTURE AND GROWTH MANAGEMENT**

**M. PROWSE, CHIEF ADMINISTRATIVE OFFICER**

**RE: INVESTIGATION – ALL-WAY STOP AT THE INTERSECTION OF OWEN STREET AND WELLINGTON STREET EAST**

**DATE: SEPTEMBER 13, 2021**

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The purposed of this Memorandum is to provide members of Council with a response to the following Council motion 20-G-192:

**“INVESTIGATION – ALL-WAY STOP AT THE INTERSECTION OF OWEN STREET AND WELLINGTON STREET EAST**

That staff in the Operations Department investigate the feasibility of installing an all-way stop at the intersection of Owen Street and Wellington Street East and report back to General Committee.”

The existing traffic operations at Owen Street (Local) and Wellington Street East (Arterial) require vehicles travelling north/south on Owen Street to stop at Wellington Street East. Please refer to Appendix “A” for a map of the study area.

Staff have investigated the intersection of Owen Street and Wellington Street East 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 (2) classes of Minimum Volume Warrants identified in the OTM; each class is based on the classifications of roadways; Minor Roadways (Local Roadways) and Major Roadways (Collector and Arterial Roadways). A road classification is determined by using the City of Barrie Official Plan, Schedule D – Road Plan.

Based on the classification of Wellington Street East being an arterial, the Major 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 500 vehicles per hour for the highest 8 hours recorded, combined with 200 vehicles/pedestrians entering the minor street per hour for the same 8 hours recorded.
- **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.
- **Stopping Sight Distance** - The distance required for a driver to see ahead in order to stop if necessary.



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A traffic count was used for the purpose of completing and All-Way Stop warrant. The count was completed on March 4, 2021. The results of the investigation are summarized below:

Description	All-Way Warrant	Recorded Data	Satisfied All-Way Warrant	
			Yes	No
<b>Part 1a – Total Volume</b> Hourly Traffic Volume	500 vehicles every hour for the busiest 8 hours	558 vehicles in the peak hour – 448 average vehicles over 8 hours		
<b>Part 1b – Side Street Volume</b> Volume of Traffic on Owen Street (Minor Street)	Greater than 200 vehicles/ pedestrians every hour over the busiest 8 hours	45 vehicles/ pedestrians in the peak hour – 41 vehicles/pedestrians over 8 hours		X
<b>Part 2 – Collisions</b> Intersection Collision History	Average 4 per year over 3 years	2 collisions over a 3-year period		X
<b>Part 3 – Visibility</b> Stopping Sight Distance from Owen Street	Less than 105m	No restrictions measured in field 110m SB Owen Street looking East		X

*\*A 2% Growth Factor has been applied to all Traffic Volumes.*

An All-Way Stop questionnaire survey was prepared and mailed to 27 property owners on Owen Street and Wellington Street East. See table below for results of the survey.

Owen Street and Wellington Street East All-Way Stop Survey	Response Received	Percentage of Responses
<b>Option A</b> - Leave as is (traffic along Owen Street stops at Wellington Street East)	2	100%
<b>Option B</b> – Install an All-Way Stop at Owen Street and Wellington Street East.	0	0%
<b>TOTAL</b> (Out of 27)	<b>2</b>	<b>7%</b>

Property owners felt that there were no issues with the existing stop control at the intersection of Owen Street and Wellington Street East. Owners also noted concerns with an All-Way Stop installation that there could be a potential increase in collisions during winter months as the intersection is on a slight hill on Wellington Street East.

Staff measured sight lines at the intersection to ensure that the stopping sight distance values were adequate. The shortest distance measured was 110m when stopped southbound on Owen Street - looking east onto Wellington Street East. This distance is greater than the minimum stopping sight distance for the OTM warrant. Therefore, Staff have determined that there are no issues with sight lines.

Staff have reviewed the intersection of Owen Street and Wellington Street East. Based on the results of the investigation, the installation of an All-Way Stop is not warranted at this time as the intersection does not satisfy the OTM warrants. Unwarranted All-Way Stops create operational and safety concerns for both pedestrians and vehicles entering the intersection. The unwarranted All-Way Stop makes drivers feel the stop is unnecessary and some motorists do not comply with the stop control. Staff will continue to monitor traffic operations at the intersection.



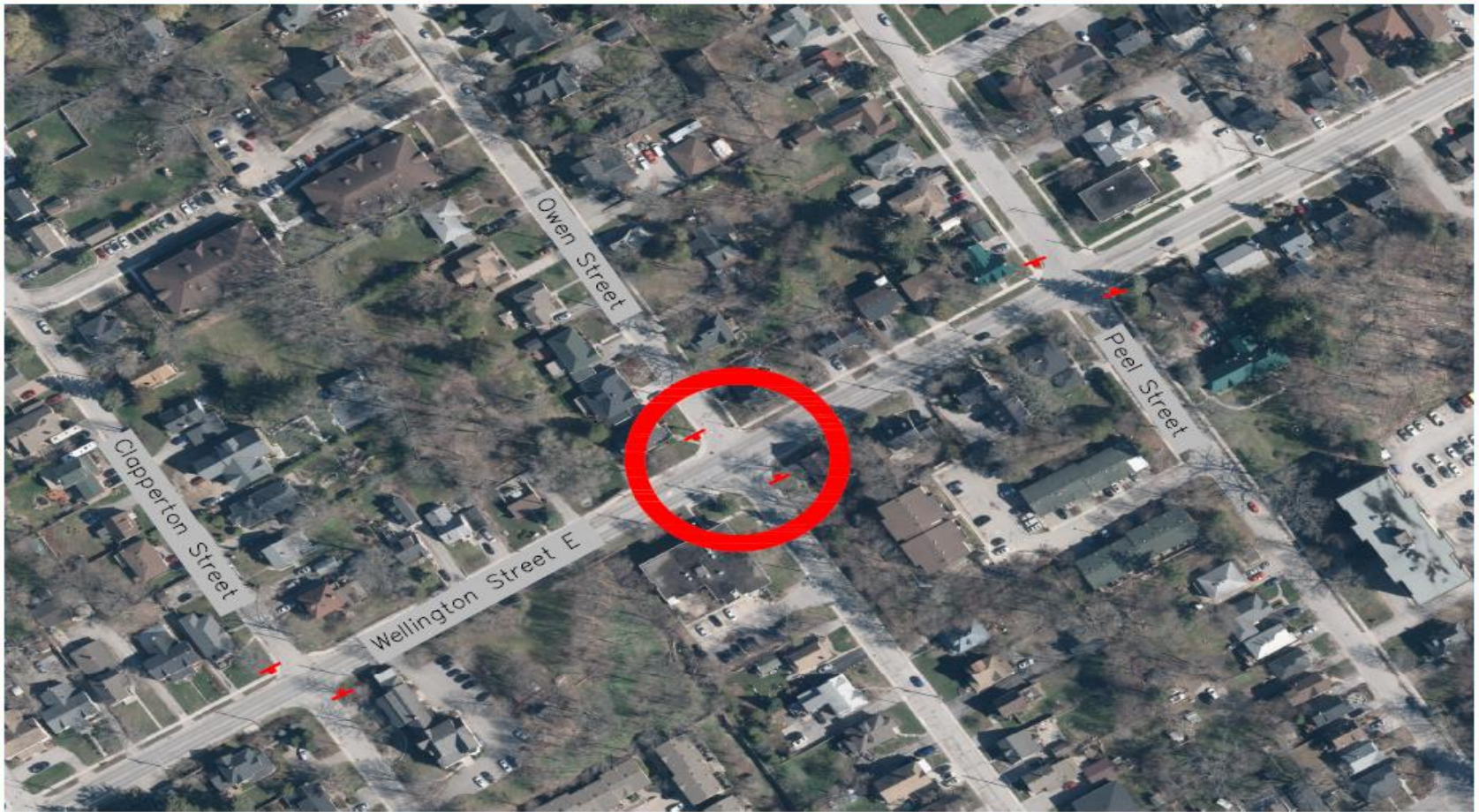
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In accordance with the Council approved All-Way Stop Policy, the following memorandum is provided to advise the results of Staff's investigations. An All-Way Stop is not recommended at Owen Street and Wellington Street East at this time.

APPENDIX "A"



Owen Street and Wellington Street  
East All-Way Stop Investigation

LEGEND:

- Study Area
- ➔ Existing Stop Signs

DATE:

Feb 2021

SCALE:

NTS

