

Presented To:	Operations Committee
Presented:	Monday, Feb 10, 2020
Report Date	Thursday, Jan 23, 2020
Type:	Managers' Reports

## For Information Only

### All Way Stop Control - Countryside Drive at Countryside Drive

#### Resolution

For Information Only

#### Relationship to the Strategic Plan / Health Impact Assessment

This report refers to operational matters.

#### Report Summary

Transportation and Innovation Services staff received a request for an all-way stop at the intersection of Countryside Drive and Countryside Drive. The report provides information regarding traffic control at the intersection.

#### Financial Implications

This report has no financial implications.

#### Signed By

**Report Prepared By**

Ryan Purdy  
Traffic and Transportation Engineering  
Analyst  
*Digitally Signed Jan 23, 20*

**Manager Review**

Joe Rocca  
Traffic and Asset Management  
Supervisor  
*Digitally Signed Jan 23, 20*

**Division Review**

David Shelsted  
Director of Infrastructure Capital  
Planning Services  
*Digitally Signed Jan 23, 20*

**Financial Implications**

Apryl Lukezic  
Co-ordinator of Budgets  
*Digitally Signed Jan 23, 20*

**Recommended by the Department**

Tony Cecutti  
General Manager of Growth and  
Infrastructure  
*Digitally Signed Jan 27, 20*

**Recommended by the C.A.O.**

Ed Archer  
Chief Administrative Officer  
*Digitally Signed Jan 28, 20*

## **All-Way Stop Control Countryside Drive at Countryside Drive, Sudbury**

Transportation and Innovation Services staff received direction at the November Operations Committee meeting to review the intersection of Countryside Drive at Countryside Drive for an all-way stop. The intersection forms a four-leg intersection controlled with two stop signs facing southeast bound traffic on Countryside Drive and northeast bound traffic from the Gerry McCrory Countryside Sports Complex.



In 2008, City Council adopted an all-way stop policy for the City of Greater Sudbury. The policy is based on a jurisdictional scan of Ontario municipalities and reduces the requirements to have all-way stops installed. Staff conducted a turning movement count on August 7, 2019 at this intersection and applied the data to the City's minimum

volume warrant. Based on the average annual daily traffic volumes on Countryside Drive, this intersection would be classified as Minor Collector. As shown in Exhibit A, the total volume meets 68% of the volume requirements.

A review of the City's collision information from 2015 to 2019 year to date revealed that there were no collisions during this period. For a minor collector roadway, the collision warrant requires a minimum of three collisions per year over three-year period.

Based on approved future development, Staff also reviewed how a veterinary clinic and dog park would impact the results of the all-way stop warrant. The veterinary clinic is proposed to be constructed within the cul-de-sac portion of Countryside Drive and the dog park will be constructed northwest of the arena with access being provided from the arena driveway.

The Institute of Transportation Engineers Trip Generation Handbook estimates the number of trips for a veterinary clinic based on building area. These estimates are based on historical traffic studies conducted throughout North America and submitted to the ITE. The size of the proposed veterinary clinic is approximately 730 square metres or approximately 7,858 square feet. Based on this size, the clinic is estimated to generate 37 trips in the afternoon peak hour.

Since the ITE Trip Generation Handbook does not have studies for a dog park, staff used the Second Avenue dog park as a comparative location. The counts collected indicate there were 14 trips in the afternoon peak hour.

Staff used a conservative approach and added these estimated trips to all four peak hours for the all-way stop warrant. As shown in Exhibit B, the total volume meets 82% of the volume requirements.

Based on the current and projected traffic volume and collision history, staff does not recommend installing an all-way stop at the intersection of Countryside Drive and Countryside Drive. With the ongoing development in the area, staff will continue to monitor the traffic volumes to the intersection to determine if an all-way stop will be warranted.

# EXHIBIT A



## CITY OF GREATER SUDBURY ALL-WAY STOP WARRANTS

Location:	Countryside Dr at Countryside Dr	Date:	January 14, 2020
Date of TM Count:	January 14, 2020	Analyst:	RP
Type of Intersection:	Cross		
Roadway Type	Minor Collector		
AADT of Main Road:	2086		

### All-Way Stop Warrant Summary

Warrant #1	Minimum Vehicle Volume	68	%
Warrant #2	Collision History	0	%
Warrant #3	Traffic Control Signals	No	Y/N

**All-Way Stop Warranted?** **No** Y/N

### Warrant #1 - Minimum Vehicle Volume

Roadway Type	Arterial/Major Collector	Minor Collector	Local	Vehicles per hour	Percent Compliance
AADT	> 5000	1000 - 5000	< 1000		
Count Period	7 hours	4 peak hours	4 peak hours		
Total vehicle volume from all approaches is ≥	500/hr	350/hr	250/hr	236	68%
Veh + Pedestrian volume from side street is ≥	200/hr	140/hr	N/A	101	72%
Traffic Split	70/30	70/30	70/30	58/42	100%

### Warrant #2 - Collision History

Roadway Type	Arterial/Major Collector	Minor Collector	Local	Total Number of Collisions	Percent Compliance
Total Collisions over a 3 year period	12*	9*	6*	0	0%

**Warrant #3** **Traffic Control Signals are warranted and urgently needed, signs to be used as interim measures.** **No** Y/N

\* Only those collisions susceptible to relief through multi-way stop control must be considered (i.e. right angle and turning types).

- If the intersection meets warrant # 1, then the all-way stop is recommended regardless of the remaining warrants.
- If the intersection does not meet warrant #1 and does not meet warrant #2, then the all-way stop is not recommended.
- If the intersection does not meet warrant #1 and does meet warrant #2, then the all-way stop is recommended.

# EXHIBIT B



## CITY OF GREATER SUDBURY ALL-WAY STOP WARRANTS

Location:	Countryside Dr at Countryside Dr	Date:	January 14, 2020
Date of TM Count:	January 14, 2020	Analyst:	RP
Type of Intersection:	Cross	Note:	Includes trips generated by proposed veterinary clinic and dog park.
Roadway Type	Minor Collector		
AADT of Main Road:	2086		

### All-Way Stop Warrant Summary

Warrant #1	Minimum Vehicle Volume	82	%
Warrant #2	Collision History	0	%
Warrant #3	Traffic Control Signals	No	Y/N

**All-Way Stop Warranted?** **No** Y/N

### Warrant #1 - Minimum Vehicle Volume

Roadway Type	Arterial/Major Collector	Minor Collector	Local	Vehicles per hour	Percent Compliance
AADT	> 5000	1000 - 5000	< 1000		
Count Period	7 hours	4 peak hours	4 peak hours		
Total vehicle volume from all approaches is ≥	500/hr	350/hr	250/hr	287	82%
Veh + Pedestrian volume from side street is ≥	200/hr	140/hr	N/A	115	82%
Traffic Split	70/30	70/30	70/30	58/42	100%

### Warrant #2 - Collision History

Roadway Type	Arterial/Major Collector	Minor Collector	Local	Total Number of Collisions	Percent Compliance
Total Collisions over a 3 year period	12*	9*	6*	0	0%

**Warrant #3** **Traffic Control Signals are warranted and urgently needed, signs to be used as interim measures.** **No** Y/N

\* Only those collisions susceptible to relief through multi-way stop control must be considered (i.e. right angle and turning types).

- If the intersection meets warrant # 1, then the all-way stop is recommended regardless of the remaining warrants.
- If the intersection does not meet warrant #1 and does not meet warrant #2, then the all-way stop is not recommended.
- If the intersection does not meet warrant #1 and does meet warrant #2, then the all-way stop is recommended.