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ORANGEVILLE • FERGUS • GRAVENHURST • HARRISTON

June 24, 2022

Town of Orangeville
87 Broadway
ORANGEVILLE, Ontario
L9W 1K1

Attention: Mr. John Lackey, P.Eng.
Manager of Operations and Development

RE: INTERSECTION ANALYSIS
Alder Street/Sherwood Street
Town of Orangeville
Our File: I4752A

Dear Mr. Lackey:

Triton Engineering Services Limited undertook a traffic count at the intersection Alder Street and Sherwood Street, for the purpose of determining whether an all-way stop was warranted. The count was undertaken on Tuesday, June 21, 2022, from 7:00 am to 9:00 am, from 11:00 am to 2:00 pm, and from 3:00 pm to 6:00 pm. A summary of the vehicle and pedestrian movements is attached, broken down into 15-minute intervals.

The warrant for an all-way stop is determined from Book 5 of the Ontario Traffic Manual. The latest version was released in 2021 and contains updated warrants, including different warrants for urban arterial roads, collector and rural arterial roads, and local roads. Alder Street is considered a minor collector and Sherwood Street is considered a local road. For a collector road, the warrant is:

- 375 vehicles per hour for each of any eight hours in a day;
- combined vehicular and pedestrian volume on the minor street wishing to enter the intersection exceeding 150 units per hour for the same eight hours, or combined vehicular and pedestrian volume on the minor street wishing to enter the intersection exceeding 120 units per hour for the same eight hours with an average delay to all minor street traffic of 30s or more; and,
- a volume split that does not exceed 70/30 as measured over the entire eight hour count, with the major street volume only including vehicles and the minor street volume including vehicles and pedestrians wishing to cross the major street (for a three-legged intersection, a 75/25 split is permissible).

The highest hourly volume recorded was 231 vehicles from 5:00 pm to 6:00 pm, the highest combined vehicular and pedestrian volume on the minor street was 48 vehicles and pedestrians from 3:00 pm to 4:00 pm, and the split during the eight hour count was 89/11. The intersection traffic volumes do not exceed the minimum volumes for any single hour of the day, the minor street vehicle and pedestrian volumes do not exceed 120 units for any single hour of the day, and the minor street traffic is less than 30% of total intersection traffic; therefore an all-way stop is not warranted for a collector road.

For a local road, the warrant is:

- 200 vehicles per hour for each of any four hours in a day;
- combined vehicular and pedestrian volume on the minor street wishing to enter the intersection exceeding 75 units per hour for the same four hours; and,
- a volume split that does not exceed 70/30 as measured over the entire eight hour count, with the major street volume only including vehicles and the minor street volume including vehicles and pedestrians wishing to cross the major street (for a three-legged intersection, a 75/25 split is permissible).

The highest hourly volume recorded was 231 vehicles from 5:00 pm to 6:00 pm, but this was the only hour that exceeded 200 vehicles. The highest combined vehicular and pedestrian volume on the minor street was 48 vehicles and pedestrians from 3:00 pm to 4:00 pm and the split during the eight hour count was 89/11. The intersection traffic volumes do not exceed the minimum volumes for all four highest counted hours of the day, the minor street vehicle and pedestrian volumes do not exceed 75 units for any single hour of the day, and the minor street traffic is less than 30% of total intersection traffic; therefore an all-way stop is not warranted for a local road.

We trust that this is the information you require, and please call if we can be of further assistance.

Yours very truly,

TRITON ENGINEERING SERVICES LIMITED

A handwritten signature in black ink, appearing to read 'Taylor Kramp', is positioned above the printed name.

Taylor Kramp, P. Eng.

cc Howard Wray, P.Eng.

Vehicle and Pedestrian Movements
Alder Street and Sherwood Street

Traffic Counts

Date of Count: June 21, 2022

Weekday AM Traffic Count Summary - Alder Street & Sherwood Street

Time	Total Vehicles							Pedestrians Crossing	
	NB on Sherwood		WB on Alder		EB on Alder		SUM	Sherwood	Alder
	left	right	left	through	through	right			
7:00 am to 7:15 am	1	1	1	6	6	0	15	4	0
7:15 am to 7:30 am	2	1	3	13	14	0	33	1	1
7:30 am to 7:45 am	0	5	1	5	8	0	19	0	0
7:45 am to 8:00 am	1	4	1	12	17	0	35	0	0
8:00 am to 8:15 am	1	2	2	8	9	2	24	1	0
8:15 am to 8:30 am	1	4	4	13	21	3	46	4	0
8:30 am to 8:45 am	2	5	7	8	36	1	59	6	3
8:45 am to 9:00 am	0	10	4	19	34	0	67	6	0
11:00 am to 11:15 am	3	3	1	8	10	0	25	7	2
11:15 am to 11:30 am	0	2	3	18	11	0	34	1	0
11:30 am to 11:45 am	1	0	8	20	9	4	42	3	0
11:45 am to 12:00 pm	2	2	0	10	14	1	29	1	0
Totals	14	39	35	140	189	11	428	34	6

Date of Count: June 21, 2022

Weekday PM Traffic Count Summary - Alder Street & Sherwood Street

Time	Total Vehicles							Pedestrians Crossing	
	NB on Sherwood		WB on Alder		EB on Alder		SUM	Sherwood	Alder
	left	right	left	through	through	right			
12:00 pm to 12:15 pm	0	3	4	19	15	0	41	4	0
12:15 pm to 12:30 pm	1	2	4	16	15	0	38	0	0
12:30 pm to 12:45 pm	2	2	3	25	8	0	40	4	0
12:45 pm to 1:00 pm	1	3	5	20	13	1	43	4	0
1:00 pm to 1:15 pm	2	0	4	10	8	2	26	3	0
1:15 pm to 1:30 pm	1	1	1	11	12	0	26	0	0
1:30 pm to 1:45 pm	0	0	0	11	10	1	22	0	0
1:45 pm to 2:00 pm	0	3	1	13	12	1	30	1	0
3:00 pm to 3:15pm	1	5	3	8	20	0	37	9	0
3:15 pm to 3:30pm	0	4	5	14	11	0	34	5	3
3:30 pm to 3:45 pm	1	2	4	16	10	1	34	4	1
3:45 pm to 4:00 pm	0	4	5	16	19	2	46	7	2
4:00 pm to 4:15 pm	0	3	4	20	10	1	38	3	1
4:15 pm to 4:30 pm	3	5	4	27	11	0	50	5	0
4:30 pm to 4:45 pm	1	0	3	19	20	0	43	3	4
4:45 pm to 5:00 pm	0	2	3	24	18	2	49	2	0
5:00 pm to 5:15 pm	0	2	3	26	19	1	51	0	0
5:15 pm to 5:30 pm	1	3	5	42	24	1	76	0	0
5:30 pm to 5:45 pm	3	2	3	22	22	0	52	0	1
5:45 pm to 6:00 pm	2	5	5	14	26	0	52	0	0
Totals	19	51	69	373	303	13	828	54	12