



1593 Four Mile Creek Road  
P.O. BOX 100, Virgil, ON L0S 1T0  
905-468-3266 • FAX: 905-468-2959

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# The Corporation of the Town of Niagara-on-the-Lake Information Report to Council

**SUBJECT:** Traffic Data Collection and Speed Minders Program Results –  
August, September, and October 2023

**DATE:** 2023-12-05

**REPORT #:** OPS-23-064

**PREPARED BY:** Khas Selvarajah

**DEPARTMENT:** Operations Services

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## BACKGROUND INFORMATION

The purpose of this report is to inform the Town Council of the data collected during August, September, and October 2023 as part of the Town’s annual traffic data collection (volume, speed, and classification) and speed minder program. Data collection began on April 3, 2023, along various roads throughout the municipality’s road network, focusing on collector roads and other local roads where Town Staff has received referrals from residents or Council, with concerns of speeding being a potential issue. The armadillo traffic data collector units were installed for a one-week period at the locations identified below.

### Armadillo Data Collection Locations: August - October 2023

#### Notes:

- All speeds are in km/hr
- Annual Average Daily Traffic (AADT)
- 85<sup>th</sup> Percentile Speed or Operating Speed – refers to the speed of vehicles when traffic volumes are low, and drivers are free to choose the speed at which they travel. This speed indicates the speed that most motorists on the road consider safe and reasonable under ideal conditions and is a good guideline for the appropriate speed limit for that road. It is a guideline which is used by most jurisdictions across North America. Alternatively, the 85<sup>th</sup> percentile can be viewed as the speed at or below which 85 percent of all vehicles are observed to travel under free-flowing conditions along a street or road past a monitored point.
- A yellow highlight in the tables below indicates when the 85<sup>th</sup> percentile speed exceeds the posted speed limit by more than 10km/hr.

**Week 18: July 31 – August 7**

	Location	Speed Limit	85 <sup>th</sup> % Speed	Average Speed	AADT
1	<b>Church Road</b> From Stewart Road to McNab Road	60	<b>77</b>	62	744
2	<b>Princess Street</b> From Walnut Street to Highlander Street	50	40	30	89
3	<b>Townline Road</b> From Line 3 Road to Carlton Street	80	85	74	1381
4	<b>Queen Street</b> From Mississauga Street to Simcoe Street	50	46	37	5773

**Week 19: August 8 – August 14**

	Location	Speed Limit	85 <sup>th</sup> % Speed	Average Speed	AADT
1	<b>Line 2 Road</b> From Four Mile Creek Road to Hope Road	50	59	51	2025
2	<b>Concession 6 Road</b> From Line 6 Road to Line 7 Road	80	<b>95</b>	84	1922
3	<b>Line 1 Road</b> From Casselman Boulevard to Niagara Stone Road	50	<b>63</b>	49	1302
4	<b>Line 3 Road</b> From Concession 6 Road to Four Mile Creek Road	80	85	75	3433

**Week 20: August 14 – August 21**

	Location	Speed Limit	85 <sup>th</sup> % Speed	Average Speed	AADT
1	<b>Johnson Street</b> From Nassau Street to Dorchester Street	50	46	37	339
2	<b>Church Road</b> From Townline Road to Irvine Road	60	<b>84</b>	70	734
3	<b>Scott Street</b> From Townline Road to Irvine Road	80	<b>90</b>	74	512
4	<b>Concession 4 Road</b> From East and West Line to Niagara Stone Road	80	63	53	624

**Week 21: August 21 – August 28**

	Location	Speed Limit	85 <sup>th</sup> % Speed	Average Speed	AADT
1	<b>Rye Street</b> From Flynn Street to Cottage Street	50	43	32	159
2	<b>Line 1 Road</b> From Homestead Drive to Concession 6 Road	50	<b>66</b>	56	1299

3	<b>Dumfries Street</b> From Queenston Street to Princess Street	50	40	34	478
4	<b>Line 2 Road</b> From Concession 3 Road to Concession 4 Road	80	77	63	1062

**Week 22: August 28 – September 5**

	Location	Speed Limit	85 <sup>th</sup> % Speed	Average Speed	AADT
1	<b>Niven Road</b> From Niagara Stone Road to Village Road	50	59	50	795
2	<b>Line 2 Road</b> From Concession 1 Road to Concession 2 Road	80	80	62	385
3	<b>Line 2 Road</b> From Concession 7 Road to Townline Road	80	88	77	664
4	<b>Line 2 Road</b> From Concession 6 Road to Concession 7 Road	80	86	74	691

**Week 23: September 5 – September 11**

	Location	Speed Limit	85 <sup>th</sup> % Speed	Average Speed	AADT
1	<b>Line 1 Road</b> From Concession 3 Road to Concession 4 Road	80	80	66	228
2	<b>Line 3 Road</b> From Concession 1 Road to Concession 2 Road	80	82	70	775
3	<b>Warner Road</b> From Four Mile Creek Road to Tanbark Road	50	58	50	756
4	<b>Queen Street</b> From Mississauga Street to Butler Street	50	55	46	1521

**Week 24: September 11 – September 18**

	Location	Speed Limit	85 <sup>th</sup> % Speed	Average Speed	AADT
1	<b>Bordeaux Drive</b> From Tuscany Court to Seyval Place	50	47	39	562
2	<b>Homestead Drive</b> From Line 1 Road to Harvest Drive	50	49	39	734
3	<b>Andres Street</b> From Line 2 Road to Henry Street	50	50	42	698
4	<b>Henry Street</b> From Cherry Street to Pine Street	50	53	45	622

**Week 25: September 18 – September 25**

	Location	Speed Limit	85 <sup>th</sup> % Speed	Average Speed	AADT
1	<b>Simcoe Street</b> From Johnson Street to Queen Street	50	39	32	324
2	<b>Highlander Street</b> From Niagara River Parkway to Queenston Street	50	49	39	104
3	<b>Dumfries Street</b> From Niagara River Parkway to Queenston Street	50	42	35	340
4	<b>Gate Street</b> From Queen Street to Johnson Street	50	34	26	383

**Week 26: September 25 – October 2**

	Location	Speed Limit	85 <sup>th</sup> % Speed	Average Speed	AADT
1	<b>Queenston Street</b> From Walnut Street to Highlander Street	50	55	46	1464
2	<b>Hunter Road</b> From Concession 4 Road to Four Mile Creek Road	50	<b>69</b>	56	326
3	<b>Queen Street</b> From Dorchester Street to Nassau Street	50	49	37	482
4	<b>Niagara Boulevard</b> From Lakeview Street to Lansdowne Street	50	42	35	640

**Week 27: October 2 – October 10**

	Location	Speed Limit	85 <sup>th</sup> % Speed	Average Speed	AADT
1	<b>Garrison Village Drive</b> From Colonel Butler Crescent to Lakeshore Road	50	39	31	929
2	<b>Garrison Village Drive</b> From Colonel Butler Crescent to Westgate Drive	50	51	38	1657
3	<b>Four Mile Creek Road</b> From Niagara Stone Road to Field Street	50	58	47	3963
4	<b>Shakespeare Avenue</b> From Addison Avenue to Lakeshore Road	50	57	45	4934

**Week 28: October 10 – October 16**

	Location	Speed Limit	85 <sup>th</sup> % Speed	Average Speed	AADT
1	<b>William Street</b> From Nassau Street to Dorchester Street	50	51	41	350
2	<b>Queen Street</b> From Nassau Street to Dorchester Street	50	54	44	1504
3	<b>Niagara Boulevard</b> From Lakeview Street to Lansdowne Street	50	53	41	2196
4	<b>Warner Road</b> From Four Mile Creek Road to Tanbark Road	50	55	43	2830

**Week 29: October 16 – October 23**

	Location	Speed Limit	85 <sup>th</sup> % Speed	Average Speed	AADT
1	<b>Line 2 Road</b> From Bordeaux Drive to Andres Street	50	55	46	1044
2	<b>Shakespeare Avenue</b> From Addison Avenue to Lakeshore Road	50	45	37	793
3	<b>Line 1 Road</b> From Concession 7 Road to Townline Road	60	<b>87</b>	74	761
4	<b>Hunter Road</b> From Concession 4 Road to Four Mile Creek Road	50	<b>65</b>	54	272

**Week 30: October 23 – October 30**

	Location	Speed Limit	85 <sup>th</sup> % Speed	Average Speed	AADT
1	<b>Niagara-on-the-Green Boulevard</b> From Robertson Road to Stevens Drive	50	45	38	1226
2	<b>Queenston Street</b> From Dumfries Street to Partition Street	50	44	34	258
3	<b>Bianca Drive</b> From Diana Drive to Loretta Drive	50	41	33	260
4	<b>Grange Crescent</b> From Grange Crescent to Grange Crescent	50	43	40	84

**Speed Minder Locations for August, September, and October 2023**

The following are locations where Speed Minder Boards were installed to mitigate speeding, as determined through the previously conducted armadillo traffic data investigations noted above.

Speed Minders are considered warranted as a next step to mitigate a speeding issue if the 85<sup>th</sup> percentile exceeds 10 km/hr over the posted speed limit. As per a previous recommendation to Council by Staff, Speed Minders are to be installed for a total two-week period at a given location to educate motorists with the intent of having them adjust their driving behaviour.

- Line 1 Road – Concession 7 Road to Townline Road (Eastbound & Westbound)
- Niven Road – Lakeshore Road to Village Road (Eastbound & Westbound)
- John Street – Charlotte Street to Niagara River Parkway (Eastbound & Westbound)
- Concession 1 Road – Line 3 Road to Line 4 Road (Southbound & Northbound)
- Niagara Street – East and West Line to Charlotte Street (Southbound & Northbound)
- Concession 4 Road – Paradise Grove to Sorensen Court (Southbound & Northbound)
- Line 1 Road – Casselman Boulevard to Niagara Stone Road (Eastbound & Westbound)
- Queenston Road – Concession 7 Road to Townline Road (Eastbound & Westbound)
- Church Road – Townline Road to Irvine Road (Eastbound & Westbound)
- Line 1 Road – Homestead Drive to Concession 6 Road (Eastbound & Westbound)
- Concession 6 Road – Line 6 Road to Line 7 Road (Southbound & Northbound)
- Church Road – Stewart Road to McNab Road (Eastbound & Westbound)
- Townline Road – York Road to Queenston Road (Southbound & Northbound)
- Concession 6 Road – Line 6 Road to Line 7 Road (Southbound & Northbound)
- Hunter Road – Concession 4 Road to Four Mile Creek Road (Eastbound & Westbound)
- Line 8 Road – Concession 1 Road to Niagara River Parkway (Eastbound & Westbound)
- Concession 2 Road – Line 7 Road to Line 8 Road (Southbound & Northbound)
- Queenston Road – Concession 7 Road to Townline Road (Eastbound & Westbound)
- Line 1 Road – Townline Road to Concession 7 Road (Eastbound & Westbound)
- Hunter Road – Concession 4 Road to Four Mile Creek Road (Eastbound & Westbound)

Town Staff will forward the above-noted locations where it has been determined that a speeding issue exists and which further warrants mitigation efforts through Speed Minders' use by our Community Policing Officer contact at Niagara Regional Police Service (NRPS) for potential police enforcement at their discretion.

### **FINANCIAL IMPLICATIONS**

Financial implications related to enacting an annual traffic data collection program include Staff time required to install and relocate the traffic collection devices and Speed Minders, downloading and analyzing the data captured and reporting the relevant information back to the inquirer and Council.

### **NEXT STEP / CONCLUSION**

The Operations Department has concluded its traffic data collection program for 2023 and will advise original enquirers (if any) of the results of the investigations. Details will include the 85<sup>th</sup> percentile speed, a concise statement explaining what the 85<sup>th</sup> percentile speed means, and whether further action will be taken.

The Operations Department will resume the traffic data collection program in the spring of 2024 and communicate the results of those investigations to the Town Council through similar Information Reports.