



*The TOWNSHIP of*  
**NORTH DUMFRIES**

## MEMORANDUM

**To:** Mayor Foxtan & Members of Council

**Copy to:** Andrew McNeely, Chief Administrative Officer,  
Shelley Stedall, Treasurer/ Director of Corporate Services  
Ashley Sage, Clerk

**From:** Cynthia Hislop, Deputy Clerk

**Re:** **Addendum to the Committee of the Whole Agenda for August 12, 2019**

**Date:** August 8, 2019

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CAO Report No. 35-2019 Item 4.3.5 requires an amendment to properly identify the correct street name.

- Word “Sheffield” is replaced with the word “Shellard”
- Attachments to the report have been updated to view Shellard Road



**COMMUNITY SERVICES COMMITTEE**  
**August 12<sup>th</sup>, 2019**

**CAO Report No. 35-2019**

**VEHICULAR SPEED & TRAFFIC CALMING:  
MORRISON ROAD, BETWEEN STUDIMAN ROAD AND SHELLARD ROAD**

**RECOMMENDATION**

The Chief Administrative Officer recommends:

- 1. THAT Council receive CAO Report No. 35-2019;**
- 2. AND THAT Staff be directed to undertake the following interim measures with respect to speeding traffic on Morrison Road, between Studiman Road and Shellard Road, as follows:**
  - i) Continue to liaise with the Waterloo Regional Police Service seeking spot traffic enforcement;**
  - ii) Install line pavement markings in the form of a centreline and edge of pavement to establish a defined lane width equivalent to 3 metres;**
  - iii) Install the centreline removable bollards (April to November);**
  - iv) Retain a traffic consultant to conduct a Speed Study Analysis with recommendations for this portion of Morrison Road; and,**
  - v) Monitor speed and traffic volumes after Items 2 ii) and iii) are installed.**
- 3. AND THAT Staff return with a Traffic Calming Report & draft Policy for the consideration of Council at the October 15<sup>th</sup>, 2019 Meeting. This Report will also include a Public Education & Outreach element that is designed to raise the profile of speeding and its impact upon the community;**

- 4. AND THAT as part of the 2020 Budget deliberations, Council consider the purchase of four (4) traffic / speed mobile signs for utilization throughout the Township for the purposes of public education and establishing baseline traffic data.**

## **1. PURPOSE**

The purpose of this Report is to advise Council of an issue of vehicular traffic speeding on a portion of Morrison Road, and, the framework of next steps to introduce corrective measures.

## **2. BACKGROUND**

### **2.1 Origin**

An area resident that resides on Morrison Road, between Studiman Road and Shellard Road, raised the concern of vehicles travelling at excessive speeds along this stretch of road. The concerns revolved around speed and the safety for cyclists, vehicles entering / exiting driveways, pedestrians and children. The original correspondence was initially received through the Office of the Mayor and Ward 4 Councillor Pam Gillespie in the last week of May 2019.

Staff have been in liaison with the area resident about the stated concerns since the complaint was first received. In the intervening period of time Staff requested the attendance of the Waterloo Regional Police Service to conduct spot traffic enforcement, and, the Township's mobile traffic sign was installed for an approximate 4 week period to measure vehicle trips and the speed of vehicles.

This Report has been prepared to respond to the area resident's stated concerns and the disturbing data that has been attained through the Township's mobile traffic sign.

### **2.2 Morrison Road, Between Studiman Rd and Shellard Rd.**

The posted speed for Morrison Road at this location is 50 km/hour. The distance between the intersections along Morrison Road is approximately 800 m (2,624 ft)

Attachment No. 1 to this Report is a street shot of Morrison Road, between the intersections of Studiman Road and Shellard Road. Morrison Road has a rural cross section and is a paved road at this location. There are no sidewalks or streetlights. The paved road surface width varies but is generally between 7 m to 7.5 m (23 ft to 24.5 ft) in width.

Attachment No. 2 is an aerial photo of Morrison Road. As can be seen from the aerial photo, the area represents a mix of rural residences, agricultural landholdings, and, naturalized areas / woodlots.

### **2.3 Traffic Data: June 7<sup>th</sup>, 2019 to July 10<sup>th</sup>, 2019**

Over the approximate one (1) month time period the Township installed a mobile traffic sign that is designed to record traffic volume (ie: number of vehicle trips) and vehicle speed. Included as Attachment No. 3 to this Report are the summary tables (east and west bound) generated by the Township's mobile traffic sign.

The data generated through the Township's mobile traffic sign reveals some very disturbing information:

- i) Traffic Violations: 91% of westbound and 94% of eastbound vehicle trips exceeded the posted speed limit of 50 km/hour;
- ii) The 85<sup>th</sup> percentile benchmark of all vehicle trips averaged 75 km/hour; and,
- iii) One vehicle was tracked at a travelled speed of 143 km/hour

### **2.4 Traffic Enforcement**

As mentioned previously, Township Staff requested the intervention of the Waterloo Regional Police Service (WRPS) upon notification of the area resident's concerns with respect to speeding on this portion of Morrison Road. Upon downloading the data Staff then transferred the information through to the WRPS to reinforce the message that speeding is a problem at this location.

In the preparation of this Report, Staff requested input from the WRPS on the issue of speeding at this location. From the Executive:

*The Waterloo Regional Police Service is committed to road safety and educating motorists on Highway Traffic Act offences. We continue to monitor issues that arise on Morrison Road between Studiman Road and Shellard Road, and conduct traffic enforcement accordingly. We are dedicated to serving the community and we have identified this area to be a viable Selective Traffic Enforcement Program (STEP) location.*

*We would like to remind motorists to slow down and drive according to road conditions. Road safety is a shared responsibility and it's important that all road users understand that their actions affect not only themselves, but everyone on the road.*

*We will continue our traffic enforcement efforts in the area and strive to ensure that North Dumfries Township remains a safe community.*

Superintendent Haffner, South Command, further advised that:

*Our data indicates that we have 4 separate incidents of officers spending time at/or between this location, laying charges in 2019. I do not have the specifics of each incident or more importantly the speeds of the infraction notice. This continues to be encouraged by South Division and our Traffic Services Unit which concentrates specifically on enforcement.*

### **3. OPTIONS AND ANALYSIS**

#### **3.1 85<sup>th</sup> Percentile – Travelled Speed**

Morrison Road, between Studiman Road and Shellard Road, is posted as a 50 km/hour speed zone.

For vehicle speeds, it is not prudent to consider the highest speed at which motorists travel. Rather, it is accepted industry practice to focus on the 85<sup>th</sup> percentile speed. This benchmark speed is at which 85 percent of the total traffic volume on a road is travelling at or below.

In the case of the data gleaned for the time period of June 7<sup>th</sup> to July 10<sup>th</sup>, 2019 for this portion of Morrison Road, the 85<sup>th</sup> percentile speed has been plotted at 75 km/hour.

When considering the 85<sup>th</sup> percentile speed for a posted speed limit of 50 km/hour, it is generally accepted that the target should be 61 km/hour or lower.

#### **3.2 Posted Speed – 50 km/hour**

The origin of establishing the 50 km/hour speed limit at this location of Morrison Road is unknown. It would be prudent to retain a traffic consultant to assess this portion of Morrison Road and to conduct a Speed Study with recommendations.

This analysis will assist in confirming what the posted speed limit for this stretch of road should be based upon road conditions (i.e., road profile and geometry, lighting, etc.), the adjacent built and natural environment, and, the design purpose of the road. The Study will assist in the consideration of possible traffic calming measures that could be incorporated into the road on a permanent basis.

### 3.3 Traffic Calming – Interim Measures

In parallel with the preparation of a Speed Study, Staff are recommending interim measures that are designed to modify speed behaviour as follows:

- i) **Lane Narrowing Through Pavement Markings:** This measure narrows the travel lanes to a minimum width of 3 metres through the use of pavement markings (centreline and edge lines). Reduced lane widths provide a feeling of constraint and should cause drivers to reduce their travel speed. Any remaining road width would represent part of the roadside shoulder.
- ii) **Centreline Removeable Bollards:** This measure is the incorporation of a reflective bollard(s) with posted speed limit that is affixed to the centreline of the road. Strategically placed along the corridor, the bollards represent an effective reinforcement of the posted speed limit. The bollards are installed during the April to November time period and are removed during the winter season so as not to interfere with winter maintenance practices. The installation of three (3) centreline bollards is recommended.
- iii) **Continued Speed Monitoring:** Upon the installation of Items i) and ii) above, re-initiate the utilization of the Township's mobile traffic sign to determine what, if any, improvements may be realized with the interim measures. This data would be utilized to assist in whether further traffic calming measures are warranted in the future such as speed tables or other similar design measures.

### 3.4 Continuation of Traffic Enforcement – WRPS

Through the identification of this area by the WRPS as a *Selective Traffic Enforcement Program (STEP)* location, the Township should continue to promote and ensure that spot traffic enforcement continues.

### 3.5 Traffic Calming Report & draft Policy

Council as set out in the adopted Corporate Strategic Plan (2019 – 2022) established in Pillar #1 Community Growth & Economic Prosperity, Goal 4, Objective f) the need to “incorporate traffic calming measures into emerging residential neighbourhoods, and assess where practical, the opportunity to establish new traffic calming measures within established neighbourhoods.

Staff acknowledge that traffic enforcement unto itself is not the solution to modify or lower travelled speeds. Public education and outreach, traffic enforcement and road design and profile are all elements that in combination will assist in reducing excessive speeds on the community's roads.

The Township is on a more frequent basis experiencing complaints from residents about the travelled speed on local roads ... the issue is being raised in urban Ayr, the rural settlements (ie: Branchton, Clyde & Roseville), and, the network across the rural areas. Each referenced area has its unique dynamics and a uniform solution will not properly respond to the matter of vehicle speeds.

Staff is recommending that a Traffic Calming Report and draft Policy be prepared and presented to Council for review / discussion. This Report and associated Policy would evaluate how to better assess on a consistent basis the issue of speeding traffic, and, how to progress through the review / solution phase to respond to the identified issue. Information derived through the adoption of the Policy will assist in the development of annual Operating and Capital Budgets in terms of funding to respond to the issue of traffic calming.

### **3.6 Mobile Traffic Sign**

At present the Township has one (1) mobile traffic sign. Staff utilize this device to measure traffic volumes and speeds to inform operational practices. On a more frequent basis, however, the mobile traffic sign is used to respond to resident's complaints about speeding traffic or "cut-through" commuter traffic.

To ensure a balance between operational needs and neighbourhood activity, Staff are recommending the purchase of four (4) additional mobile traffic signs as part of the 2020 Budget. The purchase of the additional units equates to one mobile sign for each Ward.

## **4. FINANCIAL IMPLICATIONS**

Staff have made a series of Recommendations, both interim and longer term, in this Report as it relates to the issue of speeding on Morrison Road, between Studiman Road and Shellard Road.

The Recommendations that affect the 2019 Budget are as follows:

- i) Retaining a traffic consultant to conduct a Speed Study will be at an expense of approximately \$ 3,500 to \$ 4,500. This expenditure would be funded from the Public Work's Division – Engineering Expense account in the Operating

- Budget. This account is funded in the amount of \$ 22,500 with expenditures to the end of June in the amount of \$ 2,742. Based upon other engineering projects underway, there should be sufficient funds in the account to cover the Speed Study review;
- ii) Line pavement markings have an estimated cost of \$ 1,200 to \$ 2,000 per kilometre. This expenditure would be funded from the Public Work's Division – Line Painting account in the Operating Budget. This account is funded in the amount of \$15,000 with expenditures to the end of June in the amount of \$ 1,870. The line pavement program is scheduled to rollout across the Township in August / September and the full Budget allowance has been committed. The completion of line pavement markings on this portion of Morrison Road will exceed the Operating Budget account by approximately \$ 1,000
  - iii) The purchase of the centreline removable bollards is equivalent to \$ 250 per unit. For this portion of Morrison Road, Staff would recommend the seasonal installation of three reflective centreline bollards. This expenditure would be funded from the Public Work's Division – Safety Devices Materials and Supplies account. This account is funded in the amount of \$ 12,000 with expenditures to the end of June in the amount of \$ 6,712. Based upon historic expenditures, the purchase of the three bollard units at a total expenditure of \$ 750 could be achieved within the budget allowance.

The consideration of the purchase of the four (4) mobile traffic signs as part of the 2020 Budget deliberations is equivalent to approximately \$ 4,500 per unit.

Further traffic calming measures, if warranted through the completion of the recommended Speed Study, would be presented and incorporated into the draft 2020 Budget.

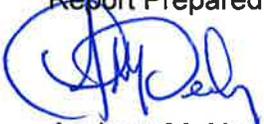
## 5. ATTACHMENTS

1. Street Shot (from Google streetview), Morrison Rd, between Studiman & Shellard Roads
2. Aerial Photo, Morrison Road, between Studiman & Shellard Roads
3. Summary Traffic / Speed Counts, June 7/19 to July 10/19, Morrison Road, between Studiman & Shellard Roads

Community Services Committee  
CAO Report No. 35-2019  
August 12<sup>th</sup>, 2019

**For further information on the contents of this Report, please contact Andrew McNeely, Chief Administrative Officer, at (519) 632-8800 ext. 121 or via email at [amcneely@northdumfries.ca](mailto:amcneely@northdumfries.ca)**

Report Prepared By & Respectfully Submitted,



Andrew McNeely,  
Chief Administrative Officer

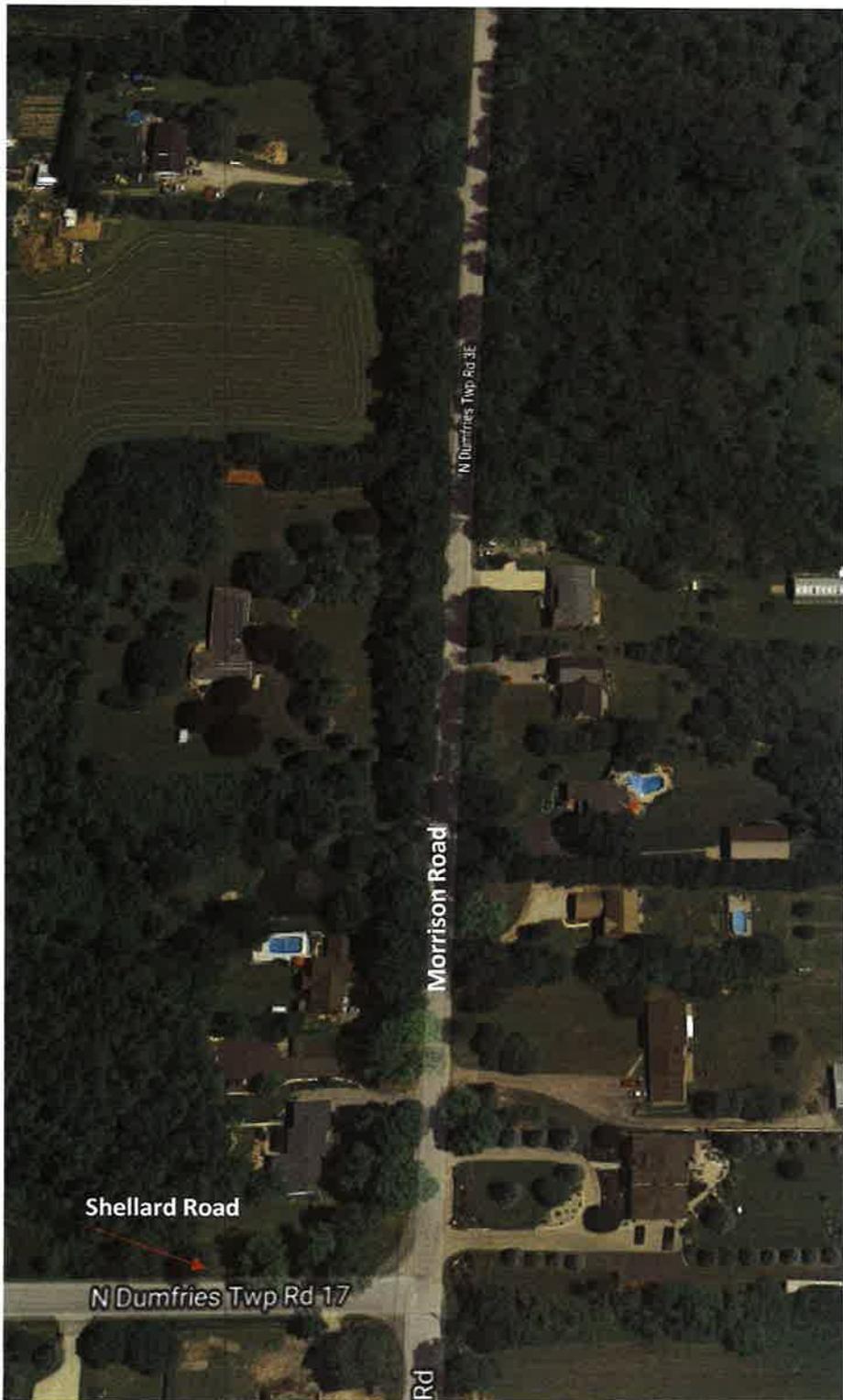
**STREET SHOTS (from Google Streetview) MORRISON ROAD, BETWEEN STUIDMAN ROAD AND SHELLARD ROADS**



**Street Shot – Morrison Road & Studiman Road**



Street Shot – Morrison Road & Shellard Road



**AERIAL PHOTO, MORRISON ROAD, BETWEEN STUDIMAN ROAD & SHELLARD ROADS**



# My Custom Report

**Location:** 1858 Morrison Road - heading w/b  
**Address:** 1858 Morrison Road, Township of North Dumfries, Ontario, Canada  
**Speed Limit:** From schedule 50 km/h

**Report Period:** 06/07/2019 to 07/03/2019  
**Total Vehicle Count:** 6618

Date/Time	Total Vehicles Count	# of Speed Violations	% of Speed Violations	Average Speed (KM/H)	Maximum Speed (KM/H)	Minimum Speed (KM/H)	85th Percentile Speed (KM/H)
2019-06-07	340	310	91 %	64	92	6	75
2019-06-08	450	402	89 %	64	95	14	76
2019-06-09	462	408	88 %	62	104	9	73
2019-06-10	584	520	89 %	63	106	11	74
2019-06-11	582	526	90 %	64	94	16	75
2019-06-12	598	521	87 %	63	103	17	74
2019-06-13	281	255	91 %	64	94	6	74
2019-06-14	642	609	<b>H 95 %</b>	66	105	17	76
2019-06-15	469	429	91 %	64	102	23	74
2019-06-16	448	407	91 %	64	<b>H 143</b>	29	74
2019-06-17	629	581	92 %	65	101	18	75
2019-06-18	<b>H 684</b>	<b>H 648</b>	<b>H 95 %</b>	65	116	33	74
2019-06-19	6	5	83 %	66	77	<b>H 42</b>	76
2019-07-03	443	421	<b>H 95 %</b>	<b>H 68</b>	107	33	<b>H 77</b>
Summary	Sum:6618	Sum:6042	Avg:91 %	Avg:64 km/h			Avg:75 km/h

\* **H** - highest value in the column, **bolded H** is highest H value in report

\*\* "n/a" - means the sign did not collect any data at the time stipulated in the report. "n/a" values are NOT included in calculations.

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APPENDIX No. 3

# My Custom Report

**Location:** 1904 Morrison Road - eastbound traffic  
**Address:** 1904 Morrison Road, Township of North Dumfries, Ontario, Canada  
**Speed Limit:** From schedule 50 km/h

**Report Period:** 07/04/2019 to 07/10/2019  
**Total Vehicle Count:** 3123

Date/Time	Total Vehicles Count	# of Speed Violations	% of Speed Violations	Average Speed (KM/H)	Maximum Speed (KM/H)	Minimum Speed (KM/H)	85th Percentile Speed (KM/H)
2019-07-04	370	359	<b>H 97 %</b>	<b>H 67</b>	95	<b>H 40</b>	<b>H 76</b>
2019-07-05	577	528	92 %	64	108	6	75
2019-07-06	437	406	93 %	64	113	6	74
2019-07-07	389	369	95 %	66	<b>H 114</b>	29	<b>H 76</b>
2019-07-08	603	573	95 %	65	113	19	74
2019-07-09	<b>H 617</b>	<b>H 590</b>	96 %	66	101	17	75
2019-07-10	130	120	92 %	65	102	15	<b>H 76</b>
Summary	Sum:3123	Sum:2945	Avg:94 %	Avg:65 km/h			Avg:75 km/h

\* **H** - highest value in the column, **bolded H** is highest H value in report

\*\* "**n/a**" - means the sign did not collect any data at the time stipulated in the report. "**n/a**" values are NOT included in calculations.

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