

**To: Warden and Members of County Council**

**From: Director of Public Works**

## **Evaluation of Traffic Calming Measures and Post Monitoring Speed Reviews in Drumbo, Plattsville, Bright and Harrington**

### **RECOMMENDATIONS**

---

- 1. That County Council endorse the implementation of additional traffic calming measures in Drumbo (Oxford Road 3, Oxford Road 29), Plattsville (Oxford Road 8), Bright (Oxford Road 8, Oxford Road 22) and Harrington (Oxford Road 28) as described in Report No. PW 2023-17;**
- 2. And further, that a by-law be presented to County Council at the April 12, 2023 Council meeting to amend By-law No. 5725-2015 to designate and modify speed zone limits as outlined in Report No. PW 2023-17;**
- 3. And further, that County Council authorize staff to modify the existing median island configuration on Oxford Road 8 in Plattsville as an additional traffic calming measure for pilot evaluation.**

### **REPORT HIGHLIGHTS**

---

- The purpose of this report is to seek County Council endorsement to implement additional traffic calming measures in Drumbo, Plattsville, Bright, and Harrington as per the findings and recommendations of the post monitoring speed reviews recently undertaken in these communities.
- Previously implemented traffic calming measures in Drumbo, Plattsville, Bright and Harrington have had minimal impact on vehicle operating speeds and, therefore, additional measures are being recommended. Additional traffic calming measures generally include, but are not limited to, adjustments to speed zones to align with the limits of built up areas, installation of electronic speed feedback signs and street light extensions.
- Staff are also recommending modifications to the existing median island on Oxford Road 8 in Plattsville based on a review of additional engineered traffic calming measures that were undertaken by staff.

## **Implementation Points**

Road safety measures identified for immediate implementation will proceed following Council authorization and enactment of by-law amendments. A number of additional measures will be considered for future implementation pending the findings of ongoing monitoring and overall effectiveness of the immediate measures.

Proposed modifications to the existing median island on Oxford Road 8 in Plattsville will be completed as part of the 2024 Business Plan and Budget, subject to County Council approval.

## **Financial Impact**

Funding for implementation of the proposed traffic calming measures for Drumbo, Plattsville, Bright and Harrington is available in the 2023 Business Plan and Budget with the exception of modifications to the median island in Plattsville, which will be planned for completion in 2024, subject to Council approval.

## **Communications**

Staff liaised with respective Area Municipality staff representatives and Ontario Provincial Police (OPP) throughout the establishment of work plans and the outcomes (findings and recommendations) of the post monitoring speed reviews noted above. Staff presented the review findings and recommendations to the respective Area Municipality Councils on the following dates:

- Drumbo, Plattsville and Bright were presented to Township of Blandford-Blenheim Council on Wednesday, February 15, 2023; and
- Harrington was presented to the Township of Zorra Council on Wednesday, February 15, 2023.







Community consultation and engagement efforts for the proposed speed management and road safety implementation measures in the subject areas included information posted on [Speak up, Oxford \(SUO\)](#), social media and direct resident mail-outs in the area of the proposed changes.

Information was posted on SUO on February 16, 2023 and the link was shared with the Township of Blandford-Blenheim and Township of Zorra staff for posting on their respective websites. Notices were mailed on February 16, 2023 which advised residents of additional road safety measures in the subject areas and information on how they could request a delegation and/or submit written comments to be received by County Council at the March 22, 2023 Council meeting.

Following County Council's adoption of By-law No. 5725-2015 amendments on April 12, 2023, Public Works will work with the communications team to develop proactive communications that clarify these speed management and road safety measures. This may include social media, direct mailing, advertising and/or other approaches.

Report No. PW 2023-17, along with any potential amendments, will be circulated to the Township of Zorra, Township of Blandford-Blenheim and Ontario Provincial Police (OPP) for information.

**Strategic Plan (2020-2022)**

					
<b>WORKS WELL TOGETHER</b>	<b>WELL CONNECTED</b>	<b>SHAPES THE FUTURE</b>	<b>INFORMS &amp; ENGAGES</b>	<b>PERFORMS &amp; DELIVERS</b>	<b>POSITIVE IMPACT</b>
1.ii.	2.i.		4.ii.	5.ii.	

**DISCUSSION**

---

**Background**

The County-wide approach for speed management and traffic calming was adopted by County Council through Report No. PW 2019-14, and identifies the following key principles that can be applied consistently across the County-wide road network for the development of recommended speed management and traffic calming implementation measures:

- Adoption of posted speeds and speed zone limits which are consistent with the driving environment in accordance with *Canadian Guidelines for Establishing Posted Speed Limits – Transportation Association of Canada (TAC) - 2009*;
- Regular/ongoing speed monitoring in communities and settlement areas;
- Information sharing/collaboration with Police, municipalities and community members;
- Identifying and prioritizing implementation of traffic calming measures;
- Consideration of speed management, traffic calming and road safety measures as part of road design/geometry for planned future road rehabilitation/land development; and
- Ongoing monitoring to evaluate effectiveness of speed reduction, traffic calming and road safety measures following implementation.

As part of the County-wide approach, post monitoring speed reviews were recently completed within the following study areas to evaluate the effectiveness of previously implemented traffic calming measures:

- Oxford Road 8 and Oxford Road 22, (**Bright**);
- Oxford Road 3 and Oxford Road 29 (**Drumbo**);
- Oxford Road 8 (**Plattsville**); and
- Oxford Road 28 (**Harrington**).

In 2019, traffic calming measures were implemented in **Bright** and **Drumbo** as a result of the findings and recommendations of speed management and road safety reviews that were undertaken in each respective community. The recommended implementation measures, as summarized below, were endorsed by County Council through Report No. PW 2019-14.

In **Drumbo**, the 80-60-50km/hr transition zone beyond the south village limits on Oxford Road 3 (Wilmot Street) was adjusted to more closely align with the limits of the built up area. Pedestrian studies were also recommended and subsequently undertaken on Oxford Road 29 (Oxford Street) which resulted in the implementation of controlled pedestrian crossings (PXOs) at Henry Street and Mechanic Street.

Similarly in **Bright**, the 60km/hr zones east and west of the village limits on Oxford Road 8 (John Street) were adjusted to more closely align with the limits of the built up area and additional 50km/hr posted speed signs were erected on Oxford Road 22 (Baird Street South).

Also in 2019, electronic speed feedback signs (SFS) were installed at the east and west limits of **Harrington** on Oxford Road 28. Although no formal study/review was completed, SFSs were installed based on speeding concerns raised by residents and from historical speed data that showed excessive operating speeds through Harrington.

In 2016, a third party study was undertaken in **Plattsville** on Oxford Road 8 (Albert Street) that identified excessive vehicle operating speeds (85<sup>th</sup> percentile) at the east end of the village. Recommendations for the installation of a median island and lane narrowing combined with a lateral lane shift to reduce incoming /outgoing speeds was approved by Council (Report No. [PW 2016-46](#)) and subsequently constructed in 2016.

### Post Monitoring Speed Reviews – Drumbo, Plattsville, Bright, and Harrington

Speed data (24hrs/7 days) was collected in Drumbo, Plattsville, Bright and Harrington to assess the effectiveness of the various traffic calming implementation measures previously implemented as noted above.

Within the study areas, post monitoring speed data showed that previously implemented traffic calming measures were having little to no effect in reducing vehicle operating speeds (85<sup>th</sup> percentile) and that historical speed reduction zones at community approaches were ineffective in reducing vehicle speeds.

Vehicle operating speeds remained excessive at the approaches and within the community in Drumbo on Oxford Road 29 (Oxford Street) and Oxford Road 3 (Wilmot Street), and in Bright on Oxford Road 8 (John Street) and Oxford Road 22 (Baird Street).

In Plattsville on Oxford Road 8 (Albert Street), the existing median island has been ineffective in reducing vehicle operating speeds; however, staff believe, based on visible wheel paths, that vehicles are driving onto the paved shoulder/bike lane before and after navigating through the island in order to avoid slowing down to make a lateral lane shift.

In Harrington on Oxford Road 28, the electronic SFSs are effective in reducing vehicle operating speeds at the approaches (at or below posted speed of 80km/hr) but vehicle speeds are not reducing further (and in some cases are increasing) as vehicles travel through Harrington in the 60km/hr zone.

## Review of Engineered Traffic Calming Measures

At the November 21, 2021 County Council meeting, correspondence was received from the Mayors of East Zorra-Tavistock (EZT), Ingersoll, Norwich and South-West Oxford (SWOX) to consider additional engineered traffic calming measures. In response, Council directed staff to report on the merits and concerns for a variety of traffic calming methods that could be implemented on County roads.

Accordingly, staff has completed a review of additional traffic calming measures for potential implementation while maintaining the intended functionality of the County road network, based on recommended guidelines published by the Transportation Association of Canada (TAC).

The County's arterial road network serves similar primary functions in rural and urban areas to provide mobility, as well as, access and goods movement in both small/medium sized urban and rural areas of the County. The arterial road network provides for movement for all vehicle types (car, truck freight, bus, farm machinery, emergency response, intercommunity transportation, local transit, etc.) and supports all road users (motorists, cyclists, pedestrians, horse and buggy, motorcyclists, etc.).

Between 2019 and 2022, speed management and road safety reviews have been completed at 21 locations throughout the County road network resulting in implementation of the following various traffic calming measures, associated traffic studies, and pedestrian facilities.

- Electronic SFSs;
- Speed zone adjustments to align with built up areas and TAC guidelines;
- Pavement markings (sharks teeth, transverse bars, edge lines);
- Gateway features (community signs, street lighting, future plantings);
- Pilot study of centreline flexible delineators;
- AODA sidewalk modifications (ramps, tactile plates);
- Pedestrian studies/PXO implementation;
- All-way stop, traffic signal warrant analysis;
- School zone implementation; and
- Community Safety Zone (CSZ) evaluation (Report No. [PW 2023-05](#), as amended).

Traffic calming measures and road safety features have been incorporated into recent road rehabilitation projects. Road diets, where traditional multi-lane roads are reduced to include single travel lanes with shared left turn lane, have been implemented in Woodstock on Oxford Road 54 (Huron St), Oxford Road 12 (Mill St), Oxford Road 35 (Devonshire Ave), and in Tillsonburg on Oxford Road 51 (Simcoe Street).

## Comments

The findings and proposed recommendations of the post monitoring speed reviews completed in Drumbo, Plattsville, Bright (Township of Blandford-Blenheim) and Harrington (Township of Zorra) are detailed in Attachment 1 and 2, respectively. Area Municipality representatives are in support of the proposed immediate and future speed management and traffic calming recommendations.

## Recommendations for Immediate Implementation

The main speed management and traffic calming recommendations for immediate near term implementation in 2023 are as follows:

### **Drumbo (Oxford Road 3 and Oxford Road 29)**

- Elimination of the 60km/hr speed transition zone at north and south approaches on Oxford Road 3 and east and west approaches on Oxford Road 29;
- Adjustment of 50km/hr speed zone limit at north approach on Oxford Road 3 to align with limit of built up area;
- Installation of electronic SFSs (4) at north/south and east/west limits of 50km/hr zone on Oxford Road 3 and Oxford Road 29, respectively;
- Introduction of CSZ on Oxford Road 3 (from Oxford Road 29 to south limit of 50km/h zone) and on Oxford Road 29 (entirety of 50km/hr zone);
- Installation of PXO at existing school crossing in front of Blenheim District Public School on Oxford Road 3;
- Change existing 40km/hr zone on Oxford Road 3 to school zone with flashing amber lights (flashing school zone lights activated during prescribed times); and
- Extension of street lights to the west, east and south village limits.

### **Plattsville (Oxford Road 8, Albert St.)**

- Extension of the limit of 50km/hr speed zone to east of Hoffstetter Road and elimination of 60km/hr speed transition zone;
- Installation of electronic SFSs (2) between Platt Street North and Walter Street for eastbound traffic and east of Hoffstetter Road (50km/h speed zone limit) for westbound traffic;
- Pedestrian study data for evaluation of a CSZ from Duoro Street to the east leg of Fennel Street; and
- Consideration of further lane narrowing measures at median island.

### **Bright (Oxford Road 8 and Oxford Road 22)**

- Extension of east and west limits of 50km/hr zone on Oxford Road 8 and elimination of 60km/hr speed transition zones;
- Adjustment of north limit of 50km/hr speed zone on Oxford Road 22 to align with limit of built up area;
- Installation of electronic SFSs (4) at north/south and east/west limits of 50km/hr zone on Oxford Road 22 and Oxford Road 8, respectively;
- Introduction of CSZ on Oxford Road 8 (Oxford Road 22 to east limit of 50km/hr zone);
- Extension of street lights to the south end of the village; and
- Installation of gateway signage on north and south approaches.

### **Harrington (Oxford Road 28)**

- Extension of east limit of 60km/hr speed zone east of 33<sup>rd</sup> Line, including relocation of existing SFS, to align with limit of built up area;
- Installation of additional electronic SFSs (2) at Albert Street for westbound traffic, and between Albert Street and 33<sup>rd</sup> Line for eastbound traffic; and
- Introduction of CSZ on Oxford Road 28 (from 31<sup>st</sup> Line to Albert Street).

## Evaluation of Traffic Calming Measures

A review of various traffic calming measures for potential implementation within the County's transportation network was undertaken using the TAC *Canadian Guide to Traffic Calming Second Edition – 2018* as a reference document. Traffic calming measures and recommended applications are summarized in Attachment 3 including, but not limited to:

- Horizontal and vertical deflection features;
- Roadway narrowing pavement markings; and
- Other features (SFSs, gateway features, community watch programs, etc.).

The traffic calming measures identified in the TAC guideline have varying degrees of effect in reducing 85<sup>th</sup> percentile speeds ranging from 3km/hr to 15km/hr.

### Roadway/lane Narrowing

Road diet, median island, bump outs and flexible delineator applications are identified in TAC as a potential traffic calming option for urban/rural arterial roads. Such applications are generally cost effective and have been considered within planned County road rehabilitation projects.

For example, a raised median island was installed on Oxford Road 8 in Plattsville (2016) but was deemed to have minimal effect in reducing vehicle operating speeds following post installation monitoring review since vehicles were able to maintain their operating speed by driving onto the paved shoulder/bike lanes.

As well, centre median flexible delineators were installed in Embro to create a road narrowing effect and has been shown to be effective in reducing 85<sup>th</sup> percentile speeds (approximately 8 – 11 km/hr for outgoing traffic). However, this application was considered cost prohibitive at this particular location due to high frequency of delineator damage from large vehicles (trucks, farm equipment). The use of centre median delineators may be applicable in other areas based on unique roadway features and other conditions.

Roadway narrowing is less aggressive and may be less impactful than horizontal/vertical roadway deflection features described next.

### Horizontal/Vertical Road Deflection

Generally, most vertical and horizontal deflection features have a more significant impact to reducing overall vehicle speeds but can negatively impact emergency response, snow plow operations, agricultural equipment, and drainage in some cases, and therefore are not recommended on arterial roads. However, horizontal/vertical features such as curb radius reduction, lateral lane shift and traffic circle/button/mini-roundabout are considered as potential viable options under certain conditions.

Potential horizontal/vertical deflection features that require reduced vehicle speeds for safe navigation without significantly disrupting the flow of traffic were further considered and assessed for potential implementation on the County road network as follows:

- Chicane – This concept provides a horizontal lane deflection requiring vehicles to navigate through at the posted/design speed (refer to typical chicane layout in Attachment 4). Although a chicane is not recommended for use on a high traffic volume arterial road according to TAC, staff considered various layout options that may be viable for consideration in Oxford County’s rural and smaller urban road networks.

Of note, a typical chicane may not be appropriate for all different types of road users. For example, the wheel path of a tractor-trailer through the chicane can encroach the centreline creating a potential conflict with opposing vehicles as shown in Attachment 4. While the length of the chicane may be further extended to allow for the safe movement of such large vehicles (trucks, farm equipment) without encroachment, the longer length then also problematically permits other smaller vehicles to navigate through the chicane at undesired higher operating speeds.

- Raised Median Island / Curb Extensions – This concept provides a horizontal deflection in combination with lane narrowing. A raised median island (i.e. Plattsville) is recommended for use by TAC on rural and urban arterial roads but is most effective when combined with curb extensions (bump outs) before and/or after the island (refer to Attachment 5) to deter vehicles from driving on the paved shoulder/bike lanes and force drivers to reduce their operating speed.

Implementation in an urban setting needs to consider existing driveway entrances and potential conflicts with cyclists and pedestrians.

In summary, most horizontal/vertical road deflection features (e.g. speed humps, traditional chicanes) would negatively affect the flow of traffic and the ability to accommodate various vehicle types that utilize the County’s arterial road network.

However, staff are recommending chicane-like modifications of the existing raised median island in Plattsville on Oxford Road 8 in conjunction with the addition of curb bump outs, as shown on Attachment 5, to further evaluate the effectiveness as an additional traffic calming feature for potential County-wide implementation.

#### Other Features

To date, Oxford County has implemented several other traffic calming measures (SFSs, gateway features, pavement markings) which are similarly recommended for use by TAC on rural and urban arterial roads. These measures are generally cost effective, have minimal impact on the intended function of the County road network and are meant to reduce vehicle operating speeds (85th percentile) through visual cues to Drivers.

Unfortunately, these measures typically do not alter excessive speeding behaviour by those who consciously disobey the rules of the road.



## **Conclusions**

Ongoing monitoring following the implementation of traffic calming measures, as one of the key principles of the County-wide traffic calming approach, has identified the need for additional measures in Drumbo, Bright, Plattsville and Harrington. Post speed monitoring has also revealed design limitations with the existing median island that was installed in 2016 on Oxford Road 8 in Plattsville. Staff is recommending retrofitting the existing median island in Plattsville with curb extensions to evaluate the effectiveness in reducing overall vehicle speeds and potential broader application across the County.

Staff will continue to collaborate with Area Municipalities, stakeholder agencies, Police and community members to monitor vehicle operating speeds and evaluate the effectiveness of traffic calming measures and make further incremental changes as necessary.

## **SIGNATURES**

---

### **Report Author:**

Original signed by:

---

Frank Gross, C. Tech  
Manager of Transportation and Waste Management Services

### **Departmental Approval:**

Original signed by:

---

David Simpson, P.Eng., PMP  
Director of Public Works

### **Approved for submission:**

Original signed by:

---

Benjamin R. Addley  
Chief Administrative Officer

## **ATTACHMENTS**

---

- Attachment 1: Post Monitoring Findings & Recommendations for Plattsville, Drumbo & Bright
- Attachment 2: Post Monitoring Findings & Recommendations for Harrington
- Attachment 3: TAC Traffic Calming Measures
- Attachment 4: Chicane Conceptual Layout
- Attachment 5: Raised Median Island with Curb Extensions Conceptual Layout