



Report to Council

Department: Infrastructure Services
Division: Capital Works and Asset Management
Date: November 17, 2025
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Report Number: Capital Works and Asset Management-2025-23
Subject: 2025 Annual Speed Monitoring Program
Number of Pages: 8

Recommendation(s)

That Capital Works and Asset Management 2025-23 entitled, “2025 Annual Speed Monitoring Program” prepared by Erica Tilley, Assistant Manager, Capital Works and Asset Management dated November 17, 2025 be received.

Purpose

This report has been prepared to share with Council the findings from the 2025 Annual Speed Monitoring Program.

Background and Discussion

The Town of Essex own’s three different types of devices to monitor traffic speed. These devices are:

Black CAT: discrete radar data collection device.



Digital Radar Sign: visually displays the traveling speed of the vehicle passing by and can be programmed to display messages such as “slow down”.



Speed Trailer: similar to the digital radar sign but mounted onto a moveable trailer, the speed trailer is operated by the Ontario Provincial Police (OPP).

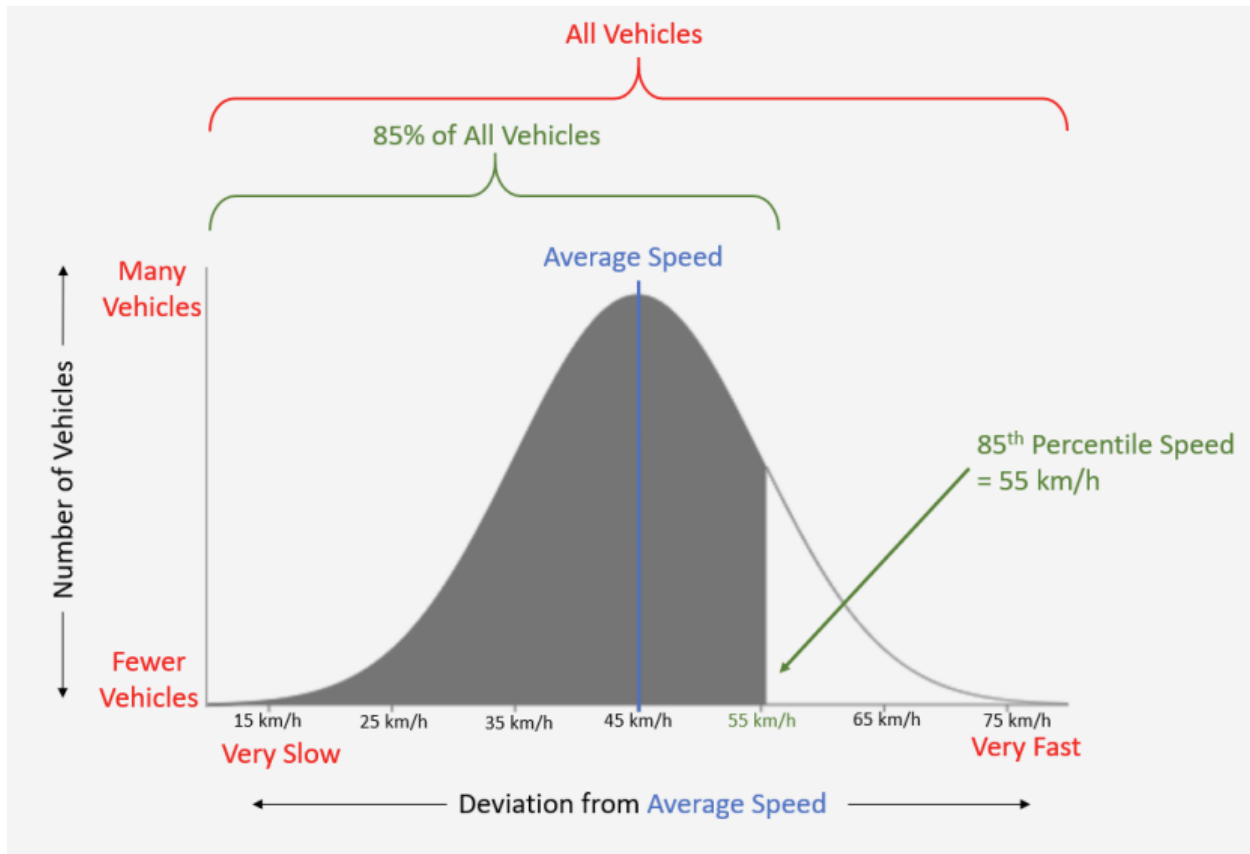


These devices are programmed to capture and collect speed information of each vehicle that passes the device. The data collected is used to create a speed data analysis report that summarizes the information collected. Data can then be compared to the posted speed limit.

The information collected is shared with the OPP and can be used as a source for the OPP to implement enforcement in a certain location based on the results. The information is also analyzed internally and can be used a tool to determine if the posted speed limit on a roadway is appropriate. The digital radar signs are used as a traffic calming measure and enforcement tool to help educate the public on speeding by displaying a real time message that reflects current driving behaviour.

From May 1st to October 31st the devices are utilized to continuously collect data by rotating the devices after a data collection period. The attached table and corresponding maps show a summary of the data collected throughout the reporting period and displays to Council the volume of vehicles collected, the average speed observed, and the 85th percentile speed.

The most useful data for Administration and Council from the table is the 85th percentile speed. As displayed below, the 85th percentile speed is the speed at which 85 percent of drivers are observed to travel at under free flowing conditions past a monitored point. It is typically the speed that most drivers feel comfortable driving at and can be the indicator of if the posted speed limit is an appropriate limit for that section of roadway.



In accordance with the Transportation Association of Canada, setting a speed limit in accordance with the 85th percentile speed is premised on safety research that concluded travelling at or around the 85th percentile yields the lowest crash risk for drivers. Therefore, a speed limit coincident with the 85th percentile speed encourages motorists to travel at the safest speed. This method is also attractive because it reflects the collective judgement of motorists as to a reasonable speed limit for a roadway. Assuming that the majority of motorists are acting reasonably, this also aligns with the legislative objective that laws (i.e. Speed limits) should not make people acting reasonably into lawbreakers. Furthermore, the use of 85th percentile as the primary criterion for selecting a suitable speed limit also satisfies the legal concept that a law cannot be effectively enforced

without the consent and voluntary compliance of the public majority. The OPP also utilizes the speed trailer on County roads, those results are shared with the County but not included in the summary as they are not Town owned roads.

Enforcement ratings are determined by comparing the travelled speed to the tolerable speed (enforcement tolerance). Enforcement tolerance is set based on the current posted speed limit. For the purposes of this monitoring program, roads that have a posted speed limit of **60km/h or lower** have an enforcement tolerance of 10km/h over the posted speed limit. Similarly, roads that have a posted speed limit of **over 60km/h** have an enforcement tolerance of 15km/h over the posted speed limit. Any speed above the enforcement tolerance is considered an enforceable violation. The enforcement rating is subjective and not part of the Ontario Traffic Manual, therefore, the values have been set by Administration using the following scale:

- **Low** is less than or equal to 10% ($\leq 10\%$)
- **Medium** is above 10% and less than or equal to 20% ($10\% < \text{tolerance} \leq 20\%$)
- **High** is greater than 20% ($> 20\%$)

The following locations were flagged by Administration to have a high enforcement rating:

- 3rd Concession Road (60km/h zone)
- 4th Concession Road (60km/h zone)
- 11th Concession Road (50km/h zone)

- 13th Concession Road (50km/h zone)
- Gore Road (50km/h zone)
- Dunn Road (60 km/h zone)
- Fairview Avenue West (40 km/h zone)

In April of 2025 Administration brought a report to Council with the recommendation to increase the speed limits on the 3rd Concession Road and 4th Concession Road from 60km/h to 80km/h. The motion from this report noted “**That** Council direct Administration to postpone the motion to repeal By-Law 1454 and amend Schedule “A” to By-Law 1061 being a by-law to regulate rates of speed on highways to change the speed limit on the 4th Concession from County Road 11 to County Road 23 from 60km/h to 80km/h and the motion to amend Schedule “A” of By-Law 1061 being a by-law to regulate rates of speed on highways to change the speed limit on the 3rd Concession from County Road 11 (Queen Street) to 100 meters west of Drummond Road from 60km/h to 80km/h to allow for a more in-depth review of the traffic flow on the 3rd and 4th Concession including the rate of speed on the north and southbound lanes of McCormick.” This recommendation is currently still under review with more detailed analysis underway.

Data collected on the 11th Concession Road and 13th Concession Road was in the location where the speed limit transitions from 80km/h to 50km/h. It is likely that drivers previously travelling at 80km/h continue at their speed rather than adjust to the lower speed limit as the road design and perceived safe speed limit of the roadway is the same both sections.

Similarly, as above, the section of Gore Road that was flagged to have a high enforcement rating was in the location where the speed limit drops from 80km/h to 50km/h.

The speeding issue on Dunn Road is likely mainly due to the residential development on the east side of the road and agricultural property on the west creating a feeling of openness. In addition, the bike lanes may also be creating the effect that the travelled portion of the road is wider than it really is. Therefore, Administration is reviewing the feasibility of painting a double white line along the bike lane stretch of Dunn Road to improve driver perception and adjust the travelled portion of the road to be more in line with the current posted speed limit.

The section of Fairview Avenue flagged with a high enforcement rating is within the community safety zone of 40km/h. Signage in this area will be reviewed to ensure that the community safety zone is sufficiently displayed.

Speed data is collected in partnership with the OPP. Results collected by the Town are compiled and shared to inform the OPP of areas that may require additional enforcement. Likewise, information collected by the OPP via the speed trailer is shared to the Town. All data collected for the 2025 Speed Monitoring Program is summarized in the attachments, "2025 Speed Data Analysis" and associating maps, "Speed Monitoring Device Locations".

Financial Impact

There is no financial impact as a result of this report.

Consultations

There were no consultations for this report.

Link to Strategic Priorities

- Embrace asset management best practices to build, maintain, and continuously improve our municipally owned infrastructure.
- Leverage our Town's competitive advantages to promote jobs and economic investment.
- Take care of our natural environment and strengthen the sense of belonging to everyone who makes Essex "home".
- Deliver friendly customer service in an efficient, effective, and transparent manner while providing an exceptional working environment for our employees.
- Build corporate-level and community-level climate resilience through community engagement and partnership and corporate objectives.

Report Approval Details

Document Title:	2025 Speed Monitoring Program - Capital Works and Asset Management-2025-23.docx
Attachments:	- Speed Monitoring Device Locations.pdf - 2025 Speed Data Analysis.pdf
Final Approval Date:	Nov 13, 2025

This report and all of its attachments were approved and signed as outlined below:

David McBeth, Manager, Capital Works & Asset Management - Nov 13, 2025 - 8:12 AM



Kevin Girard, Director, Infrastructure Services - Nov 13, 2025 - 10:08 AM



Kate Giurissevich, Chief Administrative Officer - Nov 13, 2025 - 11:27 AM