



The Corporation of the Town of Tecumseh

Public Works & Engineering Services

To: Mayor and Members of Council

From: Phil Bartnik, Director Public Works & Engineering Services

Date to Council: January 25, 2022

Report Number: PWES-2022-04

Subject: Traffic Analysis 2021 Radar Speed Surveys

Recommendations

It is recommended:

That the Public Works & Engineering Services Report No. PWES-2022-04 Traffic Analysis – 2021 Radar Speed Surveys, **be received.**

Background

The Town has two mobile speed display boards (mounted on trailers) and two Black Cats, non-intrusive, inconspicuous roadside radar detectors (affixed to hydro poles) that are deployed throughout Tecumseh in response to concerns from residents respecting vehicular speeding.

The speed display boards present the real-time speeds of the approaching vehicle on the board and flashes when the operating speed is higher than the posted speed limit. The speed display boards raise awareness of travel speeds and communicate to slow down as necessary.

While the Black Cats do not display the travel speeds of approaching vehicles, these devices, like the speed display boards, collect vehicular traffic data and generate traffic statistics such as vehicle speed and traffic volume and other data to perform analysis and develop comprehensive reports. These radar speed devices are deployed at a given location for a minimum of one week. Information collected through these devices

is also shared with the OPP for enforcement purposes and used to respond to Council and citizen inquiries and complaints.

Comments

Speed Analysis

The recommended posted speed limits for various road classes within Tecumseh are identified in the Official Plan, as amended, as well as the Transportation Master Plan, as updated, and are as follows:

Road Class	Urban Commercial Main Street	Urban Minor Arterial	Urban Collector	Urban Local Road	Rural Minor Arterial	Rural Collector	Rural Local
Posted Speed	40-50 km/h	50-70 km/h	50-60 km/h	40-50 km/h	50-70 km/h	60-80 km/h	50-70 km/h

The above-noted speed limits were established using traffic engineering standards that set the regulatory speed limit for a street facility using the 85th percentile speed, which is defined as the speed at or below which 85 percent of all vehicles are observed to travel under free-flowing conditions.

Setting the speed limit to the 85th percentile speed maintains the uniformity of speeds thereby increasing safety and reducing the risk for vehicle collisions. Selection of the most appropriate speed limit is important for driver compliance, allowing effective enforcement, and reducing accident incidence.

In 2021, the Town's speed display boards and Black Cats were deployed at 23 locations on 18 streets. Attachment 1 lists the locations where the radar speed devices were deployed, the recorded average speed and the recorded 85th percentile speed.

The data indicates that motorists were generally found to be traveling at speeds that are **not considered excessive** as indicative of the **Average Speeds** outlined in Attachment 1.

According to the **85th percentile speed** recorded, motorists **were travelling at speeds in excess of 10km/hr greater than the posted speed limit**, which is an indicator to increase enforcement activities, at the following nine locations (also highlighted in Attachment 1):

- 12th Concession Rd.

- Arlington Blvd.
- Lesperance Rd. @ Oliver
- McNorton St.
- North Talbot Rd. @ Weston Park (April 2021)
- North Talbot Rd. @ Weston Park (June 2021)
- North Talbot Rd. @ Weston Park (July 2021)
- Riverside Drive @ Montessori School (April 2021)
- Riverside Drive @ Montessori School (May 2021)

Speeding is enforced by the Ontario Provincial Police (OPP) under the Highway Traffic Act. The OPP were notified of the above-noted areas of concern for further enforcement and followed up accordingly.

In spring 2021, Public Works installed temporary flexible in-road signs in the centre of the road at targeted locations where regular speeding complaints are received from the public. These in-road signs are used as a traffic calming measure by creating a narrowing effect on the roadway which can give motorists the perception of the need to slow down. These visual cues remind motorists to drive according to the posted speed limit.

The in-road traffic calming signs were installed along six roadways: Riverside Drive (at the Montessori School), North Talbot Road (at Weston Park), St. Gregory's Street (at L'Essor High School), Southfield Drive (at Southfield Park), Oldcastle Road (at Piccadilly Avenue) and McNorton Street (at Tecumseh Center Park). To assess the effectiveness of the traffic calming signs on driver behaviour, speed radar devices were placed along two locations prior to and following the traffic calming sign installations, those locations being North Talbot Road and Riverside Drive.

The in-road traffic calming signs affected a change in driver behaviour on North Talbot Road and Riverside Drive. The recorded speed decreased to some extent at both locations following the installation of the in-road traffic calming signs. Refer to Table 1 below.

Table 1: In-Road Traffic Calming Signage

Location	Posted Speed Limit (km/h)	Average Speed (km/h)	85th Percentile Speed (km/hr)
North Talbot Rd. (eastbound)	50	59	68
North Talbot Rd. (eastbound and westbound)	50	61	69
North Talbot Rd. (eastbound and westbound) with traffic calming flexible signage	50	55	63

Location	Posted Speed Limit (km/h)	Average Speed (km/h)	85th Percentile Speed (km/hr)
Riverside Dr. (@ Montessori School) (eastbound and westbound)	40	52	60
Riverside Dr. (@ Montessori School) (eastbound and westbound) with traffic calming flexible signage	40	49	56

While these in-road traffic calming signs are designed to flex upon impact should a vehicle come into contact, many of the signs were damaged beyond repair. A few of the signs also went missing.

PWES will continue to:

1. conduct radar speed surveys in response to speeding complaints on a complaint-driven basis;
2. roll out the flexible in-road traffic calming signage at key locations with the desired effect of modifying driver behaviour to comply with the posted speed limits; and
3. provide traffic data to the OPP to assist with enforcement.

Consultations

Ontario Provincial Police

Financial Implications

The in-road traffic calming signs are approximately \$260 per sign, which is funded from the Public Works Operating Budget. Public Works will replace six signs in 2022 for a total cost of \$1,560.

Link to Strategic Priorities

Applicable	2019-22 Strategic Priorities
<input type="checkbox"/>	Make the Town of Tecumseh an even better place to live, work and invest through a shared vision for our residents and newcomers.
<input type="checkbox"/>	Ensure that Tecumseh's current and future growth is built upon the principles of sustainability and strategic decision-making.
<input type="checkbox"/>	Integrate the principles of health and wellness into all of Tecumseh's plans and priorities.
<input checked="" type="checkbox"/>	Steward the Town's "continuous improvement" approach to municipal service delivery to residents and businesses.
<input type="checkbox"/>	Demonstrate the Town's leadership role in the community by promoting good governance and community engagement, by bringing together organizations serving the Town and the region to pursue common goals.

Communications

Not applicable

Website

Social Media

News Release

Local Newspaper

This report has been reviewed by Senior Administration as indicated below and recommended for submission by the Chief Administrative Officer.

Prepared by:

Cheryl Curran, BES
Project Technician

Reviewed by:

Kirby McArdle, P.Eng.
Manager Public Works & Transportation

Reviewed by:

Phil Bartnik, P.Eng.
Director Public Works & Engineering Services

Recommended by:

Margaret Misek-Evans, MCIP, RPP
Chief Administrative Officer

Attachment Number	Attachment Name
1	2021 Radar Speed Locations

Attachment 1: Speed Radar Locations

Location	Posted Speed Limit (km/h)	Average Speed (km/h)	85th Percentile Speed (km/hr)
12 th Conc. Road (southbound)	50	57	68
Arbour St. (northbound & southbound)	50	43	51
Arlington St. (southbound)	40	44	53
Centennial Dr. (eastbound)	40	43	50
Cranbrook Cresc. (westbound)	50	31	41
Edgewater Blvd. (southbound)	50	45	54
Hayes Ave. (westbound)	50	37	46
Gauthier Dr. (northbound and southbound)	40	37	47
Grace Rd. (@ 174 Grace) (northbound)	40	42	50
Grace Rd. (@ 370 Grace) (southbound)	40	39	48
Grant St. (northbound)	40	40	48
Green Valley Dr. (southbound)	40	40	48
Lanoue St. (westbound)	50	45	53

Location	Posted Speed Limit (km/h)	Average Speed (km/h)	85th Percentile Speed (km/hr)
Lesperance Rd. (@ Oliver) (northbound and southbound)	50	56	63
Lesperance Rd. (between Docherty & Shields) (southbound)	50	53	60
McNorton St. (eastbound and westbound)	40	47	53
North Talbot Rd. (eastbound)	50	59	68
North Talbot Rd. (eastbound and westbound)	50	61	69
North Talbot Rd. (eastbound and westbound) with traffic calming flexible signage	50	55	63
Riverside Dr. (@ Montessori School) (eastbound and westbound)	40	52	60
Riverside Dr. (@ Montessori School) (eastbound and westbound) with traffic calming flexible signage	40	49	56
Shawnee Rd. (southbound)	40	42	49
St. Jacques St. (westbound)	50	32	39