TRAFFIC REPORT FOR THE COMMUNITY OF GLEN WILLIAMS

Prepared for the Glen Williams Community Association by

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Introduction

This report has been almost three years in the making. It began with a simple premise: to create a document that captures the traffic issues and possible responses most important to Glen Williams residents. The premise was simple enough, but the creation of it has been more complicated.

During this time, COVID came, which interfered with in-person meetings, but individual conversations carried on, and residents continued to keep the Glen Williams Community Association informed of their ideas. Several volunteered to collect their own data about their observations in front of their house. The Town began its Confederation Street Calming Project, which generated a great deal of resident interest and resulted in a plan for traffic calming on some of the more well-used streets. The Town also approved its Traffic Calming Implementation Policy.
(https://www.haltonhills.ca/en/residents/resources/Documents/TOHH%20Traffic%20Calming%20Implementation%20Protocol.pdf)

And changes did come to the Glen. In the summer of 2023, speed humps went in on Main Street and Wildwood Road, with additional humps on Confederation Street. The Town has recently designated Main Street near the Glen Williams School as a Community Safety Zone.

This report on traffic, prepared for the GWCA, includes a resident survey, the identified issues, the town's responses, and potential solutions. But it is not the end, nor even the beginning of the end. It is one step to better understanding how Glen Williams as a whole is impacted, not just by high volume or speeding cars and trucks, but by all the repercussions those cars and trucks and motorcycles bring into this community – danger, congestion, noise, and a reduced ability of many residents to live in an environment they can enjoy.

The solutions to these issues will be complex and our hamlet will not look like it did 50 or even five years ago. Given the growth in the area, that is to be expected. But the presence of the river and the hills that everyone appreciates must keep us

diligent to ensure that it remains our hamlet and our home, and not a suburban thoroughfare. As one resident pointed out in the resident survey: we must *ensure that whatever measures are employed to address the issues, they … augment the countryside nature of the hamlet.*

Executive Summary

The safety of residents and the need to address traffic issues is of the utmost importance to our community. This has been made clear to the GWCA over the years through community meetings and individual feedback.

The four most important issues identified by residents are speeding, noise, lack of enforcement on traffic violations, and parking and congestion in the historic core.

There have always been small pockets of areas in the Glen working to ensure the Town looked after their concerns on their streets. Petitions have been circulated and sometimes, most recently in 2021, spirited advocacy resulted in the Confederation Street Traffic Calming Project and the installation of speed humps throughout the main arteries of the Glen.

While the GWCA supports these isolated advocacy attempts, the GWCA board determined that a fuller evaluation report should be created to use for on-going discussions and advocacy with the Town of Halton Hills. It would be a report that encompasses all areas of the Glen and is meant to be representative of the entire community. It would be based on primary research, as well as secondary evidence and subjective data. The intent is to create a report that can lead to a long-term and comprehensive solution to deal with traffic growth and ensure the safety of all residents.

A three-point plan was developed:

1. Gauge the full extent of what Glen residents are thinking about increased traffic and noise by conducting a **resident survey**.

- Although the results would be subjective, the information would be invaluable to determine possible solutions and the way forward.

2. Review **primary data** from the Town; identify what traffic studies have been completed and what did they show.
    - The Town was unable to provide recent data or traffic studies for all areas of the Glen. 2022 data was provided for Confederation Street, Main Street and 22nd Sideroad. Wildwood Road data dates from 2019. What was provided by the Town is included in this report.

3. Review traffic control **best practices** that may be applicable to Glen Williams – if not immediately, then in the future.

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1. Survey Results:

The 2021 **resident survey** showed broad consensus that there are specific things residents are looking for, despite there being not as much agreement on what the solutions should be.

It was clear from the 272 respondents, representing almost 50 per cent of Glen Williams households, (and from all areas of the Glen,) that traffic concerns involve the whole of the hamlet, not just particular pockets where resident complaints emerge about whatever is going on outside of their house. The general issues identified by the survey were no surprise: vehicle speed was first, noise was

second, failure to obey traffic signs was third and last was traffic congestion and parking issues in the historical 'core' of the hamlet.

164 respondents provided comments, most were very much in favour of traffic calming measures such as speed humps and cameras, some were not. Solutions ranged from better enforcement to closing off streets.

2. **Information from the Town:**

The **collection of primary data** – how many cars are there, what are their speeds, and where are these cars going to and coming from? What is the **evidence** to show this is a true problem, other than people's perceptions. This information can only come from the Town.

A deeper dive into the limited data provided by the Town shows that Confederation Street, north of Wildwood and Main Street, had fewer cars and a lower average speed than other major roads, yet this was the first location for speed humps, presumably because of the lack of sidewalks and the strong advocacy work done by local residents.

Once the survey issues were identified, discussions began with the town via email, telephone and in person to share information and learn how the town responds in general and more specifically to identified concerns. The obvious response from the Town was that there was limited funding to provide all the solutions requested by the residents of the Glen. They also confirmed that there was no concerted plan for the entirety of the Glen and that they were primarily 'complaint driven' and the rationale is always to start with the least impactful solution to see if that works before trying something else.

This was useful information.

Two Residents Give the Range of Survey Views

As we all know, traffic is a main concern and problem affecting the residents in the Glen and the enjoyment of their homes. Whether it is excessive speed or noise the problem is out of control and our representatives need to devise a strategic solution which may have to be multi-dimensional. We all need to work together to get it done sooner rather than later before someone is hurt or killed.

VS

Traffic calming speed bumps and islands at stop signs are not required. 40 kms per hours is too slow. Look at the traffic accident history; we've had zero incidences so why all the fuss? Seems we're putting in solutions to problems that have no statistical validity.

3. Best practices

A literary review of Canadian and International traffic calming measures was done, with most of the review focused on North America. European countries offer innovative solutions that may not be applicable to North America for various reasons. In particular, other Ontario municipalities efforts were reviewed. The bulk of these best practices, or promising practices, are included in either the body of the report or its appendices.

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The three separate pieces of this report link together to show the need for a long-term and comprehensive solution to deal with growth in the hamlet as well as the use of the Glen as a cut-through access to elsewhere that impacts both major roads and smaller side streets.

It is also clear that continued advocacy is required by Glen Williams residents to ensure the Town recognizes **evidence** as the primary mover for decisions on solutions and that there are equitable solutions for all residents. For this to happen, Glen residents must understand other residents issues and that we communicate with and advocate for each other. This is hopefully the next step from this report.

The **RECOMMENDATIONS** of this report include:

1. Create a traffic plan for the entirety of Glen Williams encompassing the primary four issues identified by residents and current data

2. Improve collection and distribution of data collection from various sources i.e., Halton Regional Police, Bylaw Enforcement and community traffic studies

3. Ensure all actions taken in response to traffic issues are based on evidence, promising practices and not only complaints

4. Evaluate traffic noise issues using an acoustic consultant

5. Revise Town of Halton Hills bylaws to include traffic noise

6. Determine to what extent other areas of the Glen are being used as 'cut-through', side streets, 8th line, etc.

7. Evaluate existing signage in Glen Williams for effectiveness and to determine changes and improvements

8. Consider traffic calming improvements when new construction or development is planned

9. Promote collective advocacy in Glen Williams to the Town and the representatives

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TRAFFIC REPORT FOR THE COMMUNITY OF GLEN WILLIAMS

Survey: Resident Views

The first part of the GWCA three-point plan was to survey residents for their views on traffic issues. In 2021, the Glen Williams Traffic Survey (See Appendix A) was conducted electronically and in hard copy by the Glen Williams Community Association through its newsletter, website and individual handouts. It generated 272 responses representing almost 50 per cent of households in Glen Williams (567 households, 2016 Census Data).

Although no personal information was asked for, the survey asked for the area of the Glen respondents lived in. From this information, it was determined that some respondents considered other parts of the Glen in their ranking of issues and not just their particular area.

Glen Williams streets of most concern by survey respondents*

Main Street	28%
Confederation Street	25%
Wildwood Road	14%
Main Street and Confederation Street Area	7%
Eighth Line	6%
Other	9%

**All numbers rounded up*

The ranking of issues by respondents was straightforward and not surprising. Most residents identified vehicle speed as the top traffic concern. Noise from both cars and motorcycles ranked second, failure to observe traffic stop signs was

close behind and the traffic congestion and its resulting issues around the school and historic core was ranked last.

Identified traffic concerns by survey respondents*

Vehicle Speed	87%
Noise of Motorcycles	60%
Noise of Cars	57%
Failure to stop at stop signs	55%
Traffic congestion, parking difficulties at Main and Prince Street area	37%
Traffic congestion, parking difficulties at Glen Williams School	25%

**All numbers rounded up*

One hundred and sixty-four residents contributed comments to the survey, ranging from their own personal observations and issues to suggested solutions for the Glen as a whole. Only two respondents noted that they were satisfied with traffic in the Glen and had no real concerns, especially when compared to other communities.

The need for speedbumps were noted by 120 respondents. Four residents said NO to speedbumps.

One hundred and ten respondents noted the need for increased police enforcement for traffic infractions, including the possible use of photo radar cameras to fine speeding drivers. Only one resident said no to cameras.

A sampling of other comments included:

- *Major concerns with the large dump trucks and long-transport trucks coming up and down Wildwood. They are not allowed on this road, yet they continue to use it and it is increasing.*

- *Can we look into the cost of speed cameras? Holding people financially responsible for their speeding in my opinion is the only method that will work.*

- *Any proposed countermeasure to speeding needs to be proactive in its approach. Speed cameras and the like actively penalize offenders. Flashing slow signs or speed bumps which encourage drag racing between bumps are passive measures are either fully ineffective or penalize every single driver on the road.*

- *Business expansions should not be allowed if parking cannot be maintained or increased.*

- *Although Beaver Street was not on your list, the speeding that takes place is very regular and dangerous. There are many young children on the street. Delivery trucks and vehicles speed incessantly…I yell at speeding cars to slow down.*

- *Speeding on the main roads in Glen Williams has been longer than my 20 years in the Glen. I have heard of various studies being conducted but no meaningful change or improvements as a result…I believe there should be a robust plan to address the needs and safety for our village. Designate the heart of the Glen as a Community Safety Zone where the school and the businesses are.*

- *Confederation Street is so dangerous to walk on without sidewalks. Main Street is also very scary to walk on as drivers speed carelessly between the mills. Prince Street is also unwalkable. Pedestrians are forced to walk in the ditches. Could more parking be made available? Often there is no parking at the Williams Mill and it isn't even open? Our roads are unsuited for huge trucks.*

- *People should not be able to park in front of the community mailboxes for more than two minutes.*

- *The stop sign at Mountain and Main is treacherous. I've lost count how many times I've seen someone blast through it. I have even seen someone overtake through it.*

Information from the Town of Halton Hills

The second part of the three-point plan was to obtain primary data from the town. For example:

> *How many cars are there using the Glen? How does this compare to how many cars would be expected to be used by Glen Williams residents? Just how much of problem is a result of 'cut-through' traffic, people using the Glen streets to get somewhere else?*
>
> *Other primary data sought was the speed vehicles were going. How much was speeding really an issue? Or was the real issue the community's perception of speeding? How does the data compare to other 'ruralish' communities?*
>
> *What traffic studies have been done? What kind of deep dive into the complaints of residents over the years has been completed?*

The GWCA asked the Town for all its data over the years related to Glen Williams. Limited data was received. The reason for virtually no historical data was that the information stored on computer files was inaccessible.

The information below was sent to the GWCA via email prior to a meeting with Town staff in August 2022.

The table below shows the most recent data that was collected and utilized when determining the types of measures that will best suit the study area of the Confederation Street Neighbourhood [Glen Williams] Traffic Calming Project.

Street	Location	Date Collected	Annual Average Daily Traffic	Posted Speed Limit km/h	85th Percentile (%) km/h	Average Speed km/h
Confederation Street	Near #98	April, 2022	1622	50	60	51
Confederation Street	Between Mountain Road and Glen Crescent Drive	April, 2022	1497	50	63	54
Confederation Street	Near #149	April, 2022	1264	50	65	56
Confederation Street	Near Bishop Court	April, 2022	1097	50	66	52
Main Street	Near #573	April, 2022	1848	50	55	46
22 Side Road	Near #15583	April, 2022	1719	50	69	61
Main Street	Between Forster Street and Joseph Street	June, 2022	2594	50	57	50

The following information from the Town is derived from an untitled and unsourced document given to the GWCA in August 2022 at an in-person meeting with staff from the Town of Halton Hills. GWCA comments in response to this information are written in bold blue italics below.

April 2022 Annual Average Daily Traffic

Confederation Street

- 1622 cars on Confederation Street between Main Street and Mountain
    - Average speed 8 km per hour over the posted speed limit

- 1497 cars on Confederation Street between Mountain and Glen Crescent Drive
    - Average speeds 4 km over posted speed limit

- ***These two data items indicate 100 of those cars on Confederation are turning off before reaching Glen Crescent Drive. They do not all live on Mountain Street.***

- ***No data provided for Confederation Street from Mullen Place to Wildwood/Main Street, despite it being a straight, flat and well-maintained road, which seems more likely to invite speeding.***

Main Street

- 4322 cars on Main Street between Confederation and Prince Street
    - Average speeds five kms over posted limits

- 2569 cars on Main Street between Prince and Mountain Street

- Average speed of 10 km over the posted speed limit

- ***Almost 2000 of those cars are heading up Prince Street to get to Mayfield Road, the 410 and other points east.***

Wildwood Road (2019 data)

- 4251 cars travel between Chelton Street and Park Street West
  - Average speed of 15 km over the posted speed limit

Concerns with Town Response to date:

There are several data gaps related to the information received from the town.

- Lack of current data about Wildwood Road
- No data about Confederation Street from Mullen Place to Main/Wildwood
- No data on parking violations
- No data from Halton Regional Police about enforcement of speeding
- No data on complaints from residents
- No data on the surrounding rural roads, e.g., 8th line, 22nd Sideroad

During an in-person meeting with Town of Halton Hills staff with two GWCA board members in August 2022, a comment was made which explained much of the issues facing the Glen. *The Town reacts to complaints.* **This is what must change. It must react to evidence and best practices and effectively communicate the rationale for making changes in advance of those changes being made.**

The comment about only reacting to complaints explains how some parking spaces have disappeared, while parking is allowed in other places that seem much

more dangerous to pedestrians and cars. For example, Mountain Street has lost on-street parking, while on-street parking on Main Street beyond Joseph Street to the Beaumont Mill is tolerated.

It explains why some residents get preferential treatment while others do not. For example, driveways in the historic core are prone to have parked cars blocking them, yet only a few residences and a business have obvious lines to indicate no parking. The other residents must resort to using their own vigilance to keep their driveways clear on a busy weekend or Saturday night.[1]

It explains why there are 32 traffic and information signs on a very short section of Main Street, from the stop signs at Main/Wildwood and Confederation Streets to the intersection of Prince and Main. Various people at various times complained, so instead of addressing the entire issue adequately, a sign went up. (This number of 32 does not include street name or commercial signs.)

It explains why stop signs installations are not consistently implemented and have therefore popped up in odd places, such as in the Credit/Beaver/Erin Street area, yet not in others.

It also explains why Confederation Street, north of Wildwood and Main, was first to have speed humps installed, despite the higher number of cars on Wildwood Road and the speed they were travelling was substantially higher above the posted speed limit. It is also unclear how three speed humps on Confederation Street placed between Mountain Street and Bishop Court will ensure the safety of pedestrians with no sidewalk when the speed limit remains 50 km per hour. It

[1] The response by the Town when this inequity was pointed out was that the residents who do not have the parking lines painted should provide photos of the blocked driveways, make an official complaint and ask the Town that parking lines be painted.

also explains why only one strip of Confederation was considered or has been evaluated.

All of the above items that do not seem consistent or make a great deal of sense appear to be the result of a response the Town made to an individual complaint.

Noise Issues and the Town Response

With increased traffic, there are bound to be repercussions. Noise is just one. But it is more than just background traffic noise. Older homes in Glen Williams are close to the road. Some front doors are less than 10 feet from the road.

Stop signs cause the noise of brakes immediately followed by the loud rumbles from the acceleration of cars, trucks and motorcycles.

It is also an issue when there is little traffic. At night, the Glen and its curving roads and hills, no traffic lights and a lessened chance of meeting a police car, is prone to racing and joyriding, usually with enhanced cars to show off the noise they can make. Every household in Glen Williams can tell how they have been disturbed at night from this type of noise.

> *The issue with Harleys/cruisers with open pipes is that they can be heard for miles. Open pipes are illegal, but it seems like every weekend, there is a parade of these things. We seem to promote these people who do these illegal modifications and let them get away with it by ignoring them.*

When the discussion of noise has occurred with the Town, responsibility for bylaw enforcement was denied. Town of Halton Hills by-laws do not cover traffic noise, despite their ability to do so through the Ontario Municipal Act. “Municipalities can prohibit noise that is likely to disturb the peace, rest and quiet living spaces of

residents. Municipalities have the authority to create and enforce bylaws that control or prevent noise disturbances."[2]

But enforcement is needed from a variety of sources – not just police to identify and penalize illegally modified motorcycles or cars.

Municipalities may refer to the provincial noise guidelines and the Model Municipal Noise Control By-Law documents for assistance in drafting noise bylaws

The Province of Ontario issues guidelines for the proper control of sources of noise emissions to the environment and prevention of potential adverse effects. The guidelines include noise limits for different situations including, indoor and outdoor, daytime and nighttime, urban, semi-urban and rural zones.

Residents Weigh in On Noise

From one resident in the historic core:

- *The noise is so intense we can't have our windows open and carry on a conversation with anyone. The integrity of our village is compromised by this type of traffic and all attempts should be made to divert traffic around the village.*

From two other residents:

- *I would like to see a comprehensive plan for traffic and noise quieting for the hamlet of Glen Williams.*
- *Signs and reduced speed limits alone do very little to address the constant speeding and noise issues. The only measures that work are those that either harm the vehicle and/or the wallet. If there is any serious intention to address these issues then speed bumps, effective traffic calming barriers,*

[2] Government of Ontario, "Noise in our environment." July 29, 2021. https://www.ontario.ca/page/noise-our-environment

and/or speed cameras need to be installed. Greater police enforcement of noise violations would also be helpful. Anything less won't work.

Some residents did more than comment. Over five days in 2022, in three separate months (August, September and November), residents volunteered their personal cell phones and used the NIOSH Sound Level Meter app to record noise levels.[3] They completed eighteen brief recording periods ranging from 30 seconds to 15 minutes standing approximately 20 feet from the road.

The results were:

- 8 instances of peak recordings over 100 decibels
  - The highest recording was on November 5th registering 122 decibels. The peak level indicates impulse noise, which is more damaging to hearing, and according to NIOSH, "a professional investigation is warranted should it reach 130 decibels."
- 7 instances of average recordings during the period over 79.5 decibels
  - Below 70 decibels is usually considered 'normal'
- The LAeq reading only once resulted in a reading of 80 – meaning there was minimal risk of hearing loss, but hearing protection should be considered.

Recognizing that this was a very limited gathering of data, without sophisticated equipment, this data should not be considered as exhaustive or statistically significant. But they do point to a need for additional study, to be completed in a controlled and consistent way by a professional acoustical consultant to determine how much noise pollution and damage is being caused by impulse noises and general background traffic noise. Also, a professional study will

[3] The National Institute for Occupational Safety and Health (NIOSH). From the NIOSH website: "The NIOSH Sound Level Meter app can measure workplace noise to determine if workers may experience hazardous noise exposure." https://www.cdc.gov/niosh/topics/noise/app.html.

determine to what extent this is a public health issue and not just a nuisance disturbance.

Other communities have dealt with this – noise meters with cameras attached to determine which vehicle is creating the noise. They operate similar to photo radar cameras. Elkhart, Indiana, with a population of 52,000, has collected $1.6 million in noise fines.[4]

Traffic Congestion and the Town Response

The resident survey clearly pointed out that the historic 'core' of the hamlet is congested. Cars must slow down for the school. Parking for three restaurants and the Glen Williams Mill is minimal. Patrons driving to the Main Street Market must park on the road creating a dangerous situation for the patrons and other drivers. Cars are parked illegally, impeding traffic. And there is a great deal of traffic, with much of it heading out of the Glen – heading towards Prince Street and other cars to continue along Main Street.

The Glen Williams School presents its own issues, particularly since parents are now unable to drive into the driveway to drop their children off. It closed approximately three years ago and the difference in congestion during drop off and pick up time is striking.

Residents and businesses are impacted by parents parking their cars, often illegally or in spaces meant for customers, and then crossing the street with their children.

One resident summed up not only the parking congestion issue, but also, and more importantly, the risk to students.

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[4] "Vehicle noise cameras: quietly on their way to a $1bn market." May 2022. https://www.generalnoise.co.uk/post/vehicle-noise-cameras-quietly-on-their-way-to-a-1bn-market.

- *Closing the school parking lot for drop-off/pick-up seems to actually increase the risk to kids. A better idea might be to reconfigure the parking lot to better suit the needs rather than force parents and kids to park on the street/across the street and thus have to interface with traffic directly.*

When the GWCA met with the Town about this situation in the summer of 2022, Halton Hills staff were concerned about this fairly new arrangement. While the school may have solved its problem of liability of accidents within their parking/drive-in area, it has in effect, put this liability on to the Town.

In early 2023, the Town wrote the following update to the GWCA, apparently forgetting the process that had been agreed to at the summer meeting:

> *In terms of Glen Williams School, staff met with the principal at the end of last year to have an in-depth conversation in regards to safety. [The Principal] was kind enough to explain the multiple times she had tried talking to the parents to deter them from crossing Main Street directly in front of the school but to no avail.*
>
> *It would appear that the parents with children that choose to cross away from the crossing guard have total disregard for safety…*
>
> *At this time [Town] staff is planning to address the safety concerns through our School Zone Traffic Calming Program and the potential installation of a speed hump in front of the school. Unfortunately, this will not deter the negative pedestrian activity, but will further reduce vehicular speeds and driver awareness.*[5]

[5] Instead, the school area on Main Street will become a Community Safety Zone, with an increase in fines for speeding.

The GWCA wrote the following in response and to remind the Town of the agreed upon process to address the situation.

> *The real issue is not about crossing the street safely; we know some will and some won't. Nor is the real issue about speed. (Although a child is less likely to be killed at 20 kms than 40, it is the accident itself that all wish to avoid.)*
>
> *The real issue is attaining a safe place to unload children from cars. This is the resolution we discussed when we met outside the school last summer. We agreed on the process to start the ball rolling on this. The Town has conducted the first parts of the process we all agreed to, i.e., observing that the school driveway was not accessible to parents, parents/children were not crossing in a safe manner and finally having a discussion with the principal about the situation. …*
>
> *The next part of the process, as we recall it, is to escalate the situation to look for a resolution from the school board. ([The GWCA] also recalls Mr. Andrews saying that likely a physical reconstruction of the front of the school would allow for safer unloading facilities. That would be several residents' observations as well.)*
>
> *Because the school has [passed] the issue to the Town by restricting cars on its property, it is up to the town to [find] a joint resolution. It is this that the GWCA is willing to assist with – a small working group to consider realistic solutions and then advocacy for those solutions.*

Long-term residents can scarcely believe that **parking has become an issue** in the Glen. Yet, the success of the attractions in the Glen has meant parking adds to the general congestion. At a Town of Halton Hills Council meeting in June 2022, the local regional councilor commented on the parking issues in the Glen resulting from successful new businesses and the appeal of Glen Williams as a tourist destination. The time might come that an official parking lot – other than the ballpark – will need to be considered.

Parking is not a topic the Town was able to shed much light on. New ‘No Parking’ signs have gone up in various places. How many spaces have been lost? Have any been replaced? A parking inventory and analysis of needed number of spaces is required.

Clearly the existing ‘no parking signs’ on just one of the Main Street community mailboxes, are not working and residents are unable to easily pick up their mail because of parked cars.

The library area in Georgetown, where parking is at a premium, has painted lines and the two community mailboxes on Main Street should as well.

Pictures are worth a thousand words:


Figure 1: Georgetown Library Mailbox


Figure 2: Main Street Community Mailbox


Figure 3: Main Street Community Mailbox

This is the stop sign at Main and Mountain that seems to cause the most concern from residents.

There is a solution:

Figure 4: The 'No-Stop' Stop sign at Main and Mountain

Smart midblock crosswalks provide ways for pedestrians and bicyclists to cross busy streets, while slowing traffic only when required. These crosswalks cost an average of $2,500 to implement and have very high rates of compliance.

(National Association of City Transportation Officials. https://nacto.org/publication/urban-street-design-guide/intersection-design-elements/crosswalks-and-crossings/midblock-crosswalks/)

For more information on how and where all way stops should be located, please see Appendix 4 **Information about the correct placement of Stop Signs Ontario Traffic Manual Book 5 - Regulatory Signs, published by the Ministry of Transportation of Ontario.**

Figures 5 and 6 : The core corner in old Glen Williams with 11 signs at the intersection – not including street or commercial signs.

There are a total of 32 information, traffic and school signs from Confederation Street to Prince Street, not including street or commercial signs. How many it is possible to read in such a short distance?

Figure 7: Entrance to the core area going east. Four stop signs and five more signs going over the Confederation Bridge. The blank square sign behind the 40 Maximum sign is a flashing light. There are an additional three more signs before getting to the Copper Kettle, where there will be 11 signs in the intersection itself.

Traffic Issues Best Practices

The third part of the report relates to practices or actions that other jurisdictions have taken to address traffic issues. There are volumes written about what to do about traffic issues from enforcement to physical reconstructions. The following includes only a very few that may be relevant to Glen Williams and/or explains the reasons and the evidence for the recommendations.

Automated Speed Enforcement (ASE)

Many respondents to the traffic survey mentioned the need for speed cameras. ASE is an automated system that uses a camera and a speed measurement device to help enforce speed limits in school zones and community safety zones.

If a vehicle exceeds the posted speed limit in an ASE-enforced area, the ASE system captures an image that is stored and reviewed by a provincial offences officer. The ticket, which contains a digitized copy of the image and an enlargement of the plate portion, is mailed to the registered plate holder. Upon conviction, the only penalty is a fine – no demerit points are applied.

In 2017, Ontario authorized the use of ASE in municipalities to address ongoing issues with speeding in school zones and community safety zones. With municipalities collecting local data that indicates where speed is a factor, this data will now be used as evidence to pinpoint where ASE can be implemented in their communities to help make a difference.

Speed limits are not guidelines – they are the law. ASE is the reminder we ALL need to slow down to keep our communities safe.

Cut-Through Reduction Measures

Cut-through traffic occurs when vehicles use a residential neighborhood as a shortcut to reach a destination not in the residential area. This can create problems for residential neighborhoods where roadways are not designed to accommodate through traffic. To prevent this, it is recommended to start with speed reduction methods in order to prevent the roadway from being viewed as a more attractive option than the nearby arterial.

When these measures fail, routing restrictions can be utilized, and are designed to limit vehicle movements and roadway use on residential streets overrun by through traffic.

Three routing restriction measures include:

1. Diagonal Diverters
Diagonal diverters are barriers placed diagonally across four-way intersections, blocking through traffic but leaving space for pedestrians and bicyclists to cross. This measure reduces speed, as motorists are forced to turn, and eliminates the possibility of cut-through traffic. This measure may be used in sets to preserve traffic flow through neighborhoods, but is usually only implemented when other measures fail, as it creates potential issues for emergency and residential access. Appropriate signage should be implemented to warn motorists ahead of the diverter.

Figure 8: Diagonal diverter blocking through traffic to a residential street. Source: ITE and PennDOT

2. Half Closures

Half closures create one-way streets by blocking travel in only one direction for a short section of the roadway. Half closures do not eliminate a travel lane but may prevent traffic on the arterial from entering a residential street. Half closures may be used in sets throughout a neighborhood but are also generally only implemented when other measures have failed. Possible impacts, such as emergency access and inadvertently increasing traffic on other residential roadways, must be considered. Appropriate signage is necessary to warn drivers.

Figure 9: Half-closure blocking motorist access to a roadway. Source: Reliance Foundry

3. Median Barriers/Turn Islands

Median barriers and turn islands are raised islands or diverters along the centre of an intersection or at the stop bar that force motorists to turn by blocking the through lane. These barriers are placed on arterials and major roads to restrict motor access to residential roadways, though bicyclists and pedestrians can still cross. When installing a median barrier or turn island, it is important to consider potential impact to traffic volumes on other nearby streets, as well as residential and emergency access.

Figure 10: Median barriers restricting motor vehicle access.

Additional information about cut-through traffic comes from Community & Environmental Defense Services:

- Congested roads and rising neighborhood cut-thru traffic are a result of poorly managed growth.

- Table 1, below, is from a Texas Transportation Institute report and shows that local roads/streets in urban areas have the highest crash

(accident) rate. In an urban setting, most of these local roads would be residential or neighborhood streets.

TABLE 1 Comparison of crash rates by roadway classification in urban areas (*1*)

Roadway Classification	Fatal Crashes	Vehicle-Miles Traveled (millions)	Crash Rate (crashes per 100 million vehicle-miles)
Interstate	1,791	285,325	0.6
Other Freeway	1,619	128,242	1.3
Minor Arterial	5,081	338,987	1.5
Major Collector	3,171	240,402	1.3
Collector	1,149	107,272	1.1
Local Roads/Streets	**2,928**	**188,365**	**1.6**
Unknown	27	--	--
Total	15,766	1,288,593	1.2

Table 1 **shows that neighborhood streets are our most dangerous.**

- Research has determined that those using neighborhood streets to avoid main road congestion tend to drive at a higher speed. The combined effect of cut-thru traffic increased speed and volume makes a neighborhood street even more dangerous.

- It is generally true that as traffic volume increases, the value of homes along a street declines. This is especially true for those living on courts and other cul-de-sac streets where homes can sell for up to 20% more than those located on through streets.

How Much Traffic Is Too Much for a Neighborhood Street

While every through-street will carry traffic from one main road to another, neighborhood quality of life suffers when the volume crosses a certain threshold. Where is that threshold?

The table below is from a paper that appeared in the Institute for Transportation Engineers Journal. The term “environment” in the table is defined as:

"one where residents can live, work and move about in freedom from the hazards of motor traffic."

Environment	Vehicles Per Minute	Vehicles Per Day
Excellent	0.5	300
Good	0.5-1.0	300-600
Acceptable	1.0-2.0	600-1200
Poor	>2.0	>1200

To put these numbers in perspective, each single-family detached home generates one peak-hour trip and ten trips per day. This includes not just the cars and SUVs driven by residents but delivery trucks and all other traffic entering-exiting a neighborhood. One would anticipate that those who live on a residential street prefer that traffic volume remain in the good to excellent range, or fewer than 600 vehicles per day. In other words, land use decisions should not cause traffic volume to exceed 600 vehicles per day on a neighbourhood street.

Effectiveness of Neighborhood Traffic Management Techniques

This table appeared as Table 5 in Comprehensive Engineering Approach to Achieving Safe Neighborhoods

Category	Technique	Primary Measure of Effectiveness	Percent Reduction In…		
			Volume	Speed	Collisions
Route Modification Devices	Full closures (1 to 4 blocks away)	Volume reduction	44%		
	Half closures (1 to 4 blocks away)	Volume reduction	42%	19%	
	Diagonal diverters	Volume reduction	35%	4%	
Traffic Calming Devices	Speed humps	Speed reduction	18% to 22%	23%	13% to 40%
	Speed tables	Speed reduction	12%	18%	45%
	Raised intersections	Speed reduction		1%	
	Traffic circles	Speed reduction	5%	11%	28%
	Roadway narrowing	Volume reduction	10%	4%	
	Chokers	Volume reduction	20%	14%	
Regulatory Measures	Speed trailers	Speed reduction	9%	7%	10%
	Speed limit signs and markings	Speed reduction	4%	7%	3%
	Increased enforcement	Speed reduction	8%	28%	28%

Source: Texas Transportation Institute.
https://static.tti.tamu.edu/swutc.tamu.edu/publications/technicalreports/167707-1.pdf

Ensuring Measures Really Do Calm Cut-Thru Traffic

Many transportation agencies face a conflict when it comes to traffic calming measures. On the one hand, no one would argue that calming measures make neighborhood streets safer by discouraging cut-thru traffic. On the other hand, traffic agencies rely upon cut-thru traffic to reduce main road congestion.

This conflict can result in the design of calming measures that serve more as a pacifier rather than achieving the goal of making neighborhood streets safer. For example, one study showed a substantial difference in the effectiveness of speed humps with an entrance ramp slope of less than 5%. This same study documented that speed humps spaced 82 feet achieved a 25% lower speed compared to a spacing of 1300 feet. Combined, a slope of >5% and spacing of 82 feet slowed traffic by an average of 5 miles per hour more compared to speed humps with <5% slope and 1300-foot spacing.

Figure 11: Speed bump

It is not uncommon for residents to say that while their neighborhood streets have speed humps or other calming measures, they do not seem to have much effect on cut-thru traffic volume or speed. We suspect the poor performance is mostly due to poor design. **In other words, the measures may have been**

designed more as pacifiers than to achieve a significant improvement in neighborhood street safety. [Emphasis added]

The recommended spacing for speed humps is every 260 to 500 feet. A typical speed hump:

- Extends from edge of street pavement to edge of pavement,
- Has a length of 12 feet, which
- Means it must be at least 3.6-inches high to achieve a 5% entrance ramp slope.

If speed humps on a street do not meet these specifications, then they may be less than fully effective.

The Town of Innisfil

Innisfil's Traffic Calming Policy is mentioned in much of the literature related to traffic calming in smaller towns in Ontario.

The Town of Innisfil developed its Traffic Calming Policy to address speeding, volumes concerns, safety, and security for its residents and to maintain the roadway functions. What is most relevant is their four key themes and process for deciding what measures should be implemented.

The four key themes are liveability, access and mobility, safety, and aesthetics.

The eligible roadways are local and rural collector, urban collector, urban and rural arterial roadways.

Implementation of traffic calming is available in three ways: retrofitting existing roadways, in new developments, or as part of the draft plan review of subdivisions and consider traffic calming within the municipal road allowance.

The Town of Caledon

Our immediate neighbours point out the following in their traffic calming protocol.

> Their protocol refers to the extensive research found in , 'A Manual for Local Rural Road Owners', completed in 2012 by the U.S. Department of Transportation Federal Highway Administration (FHWA), regarding traffic calming on main roads through rural communities (e.g., villages and hamlets in the context of the Town of Caledon.) This report identified that these type of roads presents both an enforcement challenge for the community and a perceived safety issue for the general public.
>
> **The Manual indicates that trying to solve an identified speeding problem along this type of rural corridor through law enforcement alone generally leads to an increase in compliance with the posted speed followed by a quick return to the speeding behaviour after enforcement is terminated.** (Emphasis added)
>
> Acknowledging that this type of roadway not only serves local traffic, but also provides connectivity to the rest of the community at a relatively higher speed, the Manual discuss the use of the following set of measures:
>
> - Installation of traffic control devices to reduce speed: advisory speed signs including pavement marking and speed activated signs.
> - Changes on road design: lane narrowing, road diet.
> - Road rehabilitation or reconstruction: horizontal deflections, vertical deflections, gateways.
> - Enforcement: traditional and **automated enforcement**; and
> - Education: public information and educational campaigns.
> - Traffic calming awareness materials including information handout cards, webpage content and social media messaging

- Provide information and educate the public about what traffic calming is, why it's important, what techniques are used to address concerns, and where to get more information.
- A traffic concern reporting form for consistent reporting of traffic concerns, including identifying the type of behaviour, the time of day, the behaviour witnessed, and the location.

The Township of King

The Township of King has also developed a Traffic Calming Strategy to provide a clear, consistent, and transparent process, as well as solutions, to meet the needs and expectations of its community. One idea generated is Ghost Cars.

"Ghost cars is a program by York Regional Police that uses a decommissioned police vehicle that is strategically parked around the municipality to discourage speeding and other traffic infractions. Motorists think that there might be a police officer doing speed enforcement."

Conclusion

Despite the extended length of time this report has taken to complete, many of the identified issues remain. The Town of Halton Hills has taken several actions to address a few of the concerns, namely speed humps have been installed, a reduced speed limit on some roads has been implemented, additional 'no parking' lines have been painted for additional residents. Only time will tell how effective these actions will be.

Feedback from residents will be sought to help determine the effectiveness, but it is also expected that hard data will be produced to provide evidence on the impact or lack thereof. A perception of improvement is meaningless if it cannot be measured.

But there remain other issues to resolve that are complex and time consuming and likely costly to obtain the resolutions residents are seeking. But to preserve the Glen as we all know it, this is necessary.

Next steps will require partnership building with residents and the Town of Halton Hills representatives, school board officials, and Town Staff. What is important is that all parties have the same vision – that to resolve these issues as residents have identified them, even though complex and costly, is required.

To provide comments about this report, please email glenwilliamsca@gmail.com

Appendix 1

Traffic Survey

Glen Williams Community Association Traffic Survey
September 2021

If you have already completed this survey on-line, please do not fill this out again.

1. Please share your traffic concerns for all of Glen Williams, not just your street. Please check all that apply.

- [ ] Vehicle speeding
- [ ] Noise of cars
- [ ] Noise of motorcycles
- [ ] Failure to stop at stop signs
- [ ] Illegal parking
- [ ] Traffic congestion and parking difficulties at businesses in the main part of the hamlet
- [ ] Traffic congestion at the Glen Williams Public School
- [ ] Lack of parking near Glen Williams Public School
- [ ] None of the above

2. Please check the traffic area of the Glen that concerns you most.

- ○ Prince Street
- ○ Confederation Street
- ○ Wildwood Road
- ○ Main Street
- ○ Intersection of Main and Confederation
- ○ Eighth Line
- ○ Other (please specify)

3. What road do you live on or what is the nearest intersection?

4. Is there anything you'd like to comment on or ideas or solutions that you would like to share.

Appendix 2

Environmental Noise Guideline – Stationery and Transportation Sources

From the Government of Ontario:

"Background sound level" means the sound level that is present in the environment, produced by noise sources other than the source under impact assessment. For the purposes of noise assessments related to stationary sources, the background sound level is expressed in terms of the One-Hour Equivalent Sound Level (Leq). The background sound level is determined by means of measurement according to References 16, 28, 29 and 30 and/or prediction according to References 17, 24, 33 and 34 or by other methods/models that are acceptable to the MOE, unless the exclusion limit values are adopted.

The background sound level is typically caused by road traffic, except in areas well removed from the activities of people. Sound from existing adjacent stationary sources may be included in the determination of the background One-Hour Equivalent Sound Level (Leq) if such stationary sources have the appropriate approvals and are not under consideration for noise abatement by the municipality or the MOE.

Sound Levels due to Road Traffic

Depending on the application, the One Hour Equivalent Sound Level (Leq) of road traffic shall be obtained either by measurement or by calculation. The following procedures shall be used for complaint investigation and for the approval of stationary sources:

Complaint Investigation of Stationary Sources (1)

The One Hour Equivalent Sound Level (Leq) of road traffic may be measured or calculated. Measurements of the One Hour Equivalent Sound Level (Leq) of road traffic shall be carried out using instrumentation described in Reference [2],

following procedures for the measurement of varying sound described in Reference [3].

The results of the road traffic Leq measurements must not be affected by the sound due to other noise sources; the measurements should be performed when the stationary source under impact assessment is not operating. The time interval between the road traffic Leq measurements and the measurement of the sound level produced by the stationary source under impact assessment should be minimized as much as possible. Preferably, the two measurements should be carried out within one hour of each other.

The calculation of the One Hour Equivalent Sound Level (Leq) of road traffic shall be based on the traffic flows observed on the contributing road(s), from which traffic noise is audible at the point of reception, within one hour of the period when the sound from the stationary source is measured. The calculation procedure is described in Reference [11].

References

Reference is made to the following publications:

[1] NPC-101 -Technical Definitions

[2] NPC-102 - Instrumentation

[3] NPC-103 - Procedures

[5] NPC-205 - Sound Level Limits for Stationary Sources in Class 1 & 2 Areas (Urban)

[11] Ornament, Ontario Road Noise Analysis Method for Environment and Transportation, Technical Document, Ontario Ministry of the Environment, ISBN 0-7729-6376, 1989

References [1] to [3] can be found in the Model Municipal Noise Control By-Law, Ontario Ministry of the Environment, Final Report, August 1978.

Appendix 3

Adapted from SMATS Traffic

What is Traffic Calming?

Calming Measures for Neighborhood Streets

Traffic calming is a system that utilizes design strategy and physical adjustments to reduce traffic speeds for the sake of safety and accessibility. Environmental adjustments, such as physical barriers and speed humps, force motorists to pay attention to their surroundings and alter their driving behaviors, resulting in lower speeds and safer driving. Traffic calming aims to prevent high-speed, rushed driving by 'calming' motorists through increased sensory awareness. This is particularly important in areas, such as residential neighborhoods, with increased pedestrian and bicycle traffic, where high-speed, unfocused driving can be fatal. Benefits of Traffic Calming

Traffic calming has a range of proven benefits, including: speed reduction, lower fatality rates, decrease in injury severity, reduced traffic noise, better conditions for non-motorists, and improved street aesthetics. The primary benefit of traffic calming is increased safety and better-quality travel conditions for pedestrians and bicyclists. This is essential for residential neighborhoods, which unlike urban centres and major arterials, may have a high density of children and vulnerable roadway users who are not expecting sudden, high-speed vehicles. A study by The American Journal of Public Health found that children who lived within a block of a speed hump, a popular traffic calming method, had significantly reduced odds of being hit by a vehicle.

Residential neighborhoods have two primary concerns regarding traffic calming: reducing traffic speeds and cut-throughs. There are a variety of traffic calming measures that can be utilized, individually or together, to combat both of these issues:

Speed Reduction Measures

Traffic speeds can be reduced through measures such as horizontal and vertical deflections, and street width reductions. Deflections force motorists to slow down, either by preventing their ability to drive in a straight path, or by changing the height of the roadway. Street width reductions narrow the roadway, causing drivers to slow down to maintain safety, and create smaller distances for pedestrian crossings. 5 common speed reduction measures include:

1. Speed Humps

Speed humps are rounded, raised areas of pavement that require drivers to reduce their speed in order to maintain comfort and prevent vehicle damage. Speed humps are not to be confused with speed bumps, which are taller and less wide, making bumps more jarring for drivers. Humps work best on roads with slower speed limits, and require multiple humps placed in a series, making them ideal for residential neighborhoods. They should have accompanying signage or pavement markings to warn drivers in advance. Speed humps can reduce the average speed by 20-25% between humps, with an average crash rate reduction of 13%. Cheaper than other measures, speed humps are a highly effective way to reduce speeds in residential neighborhoods.

Figure A-1: Speed hump on a single lane road

2. Chicanes

Chicanes are sidewalk extensions that create a zigzag pattern with alternating curves to disturb the straight path of the roadway. This requires motorists to steer back and forth in order to navigate the road, causing speed reductions and more cautious driving. Chicanes work best on low volume roadways with lower speed limits, making them ideal for residential neighborhoods. Curb and sidewalk extensions, parking spots, or garden boxes can be used to create chicanes, providing both neighborhood functionality and safety.

Figure A-2: Chicane on a residential street. Source: NACTO

3. Traffic Circles

Traffic circles are raised islands at the centre of one lane, unsignalized intersections, where traffic circulates around the island in order to cross. Small traffic circles, also called 'mini roundabouts' can be implemented in areas with lower traffic volumes to create a steady flow of traffic with minimal diversion. These circles require drivers to slow down and pay attention to their surroundings in order to maneuver around them. Traffic circles create pedestrian crossing and landscaping opportunities, making them ideal for busier residential roads with traffic cut-through and higher speeds.

Figure A-3: Mini roundabout in a residential neighborhood. Source: City of Vancouver

4. Chokers

A choker, also known as a corner extension or bulb-out, is a horizontal extension of the sidewalk meant to narrow the roadway for a section of the street, rather than the whole street. Chokers can be used near entry points or for mid-block locations in residential neighborhoods to discourage cut-through and reduce speeds. Cut-throughs are discouraged through the creation of a temporary one-way road, which requires motorists to take turns passing through. Signage should be utilized to warn motorists of the extension, particularly in residential areas with minimal street lighting.

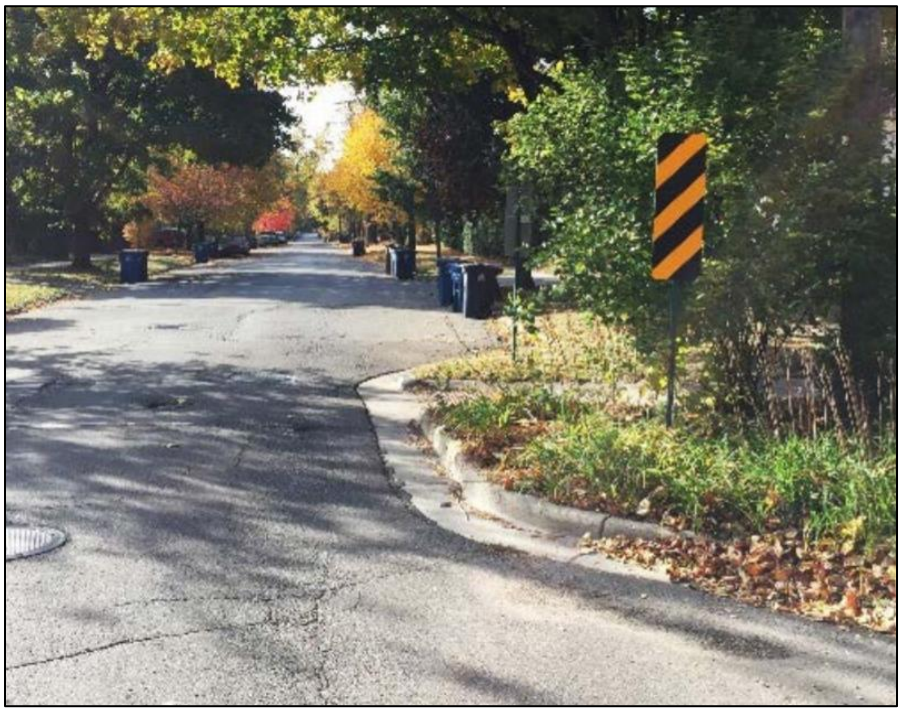

Figure A-4: Choker in a residential neighborhood. Source: City of Ann Arbor, Michigan

5. Lane Narrowing

Lane narrowing, also known as a road diet, is the narrowing of travel lanes. Lane narrowing can be accomplished through widening of sidewalks, creating bicycle lanes, landscaping, or inserting raised medians in the centre of the roadway. Narrow lanes encourage driver alertness, and cause motorists to slow down in order to increase driving comfort. The use of raised medians can reduce speeds and also prevent cut-through traffic by blocking residential roadway entries. Narrowed lanes also contribute to residential areas by providing more room for pedestrian activity and greener streets.

Figure A-5: Bicycle lane and median narrowing the roadway

Appendix 4

Information about the correct placement of Stop Signs Ontario Traffic Manual Book 5- Regulatory Signs, published by the Ministry of Transportation of Ontario.

Motorists expect stop-controlled devices when approaching an intersection. In neighbourhoods, it is typical to see stop signs and yield signs at local intersections.

The provincial warrant for All-way Stop Controls is based on the traffic volumes of the major and minor road and **past collision history of the intersection:**

1. Minimum Volume Warrant (Minor Roads): An all-way stop control may be considered on minor roads where the following conditions are met:
    a. Total vehicle volume on all intersection approaches exceeds 350 for the highest hour recorded;
    b. and b. Volume split does not exceed 75/25 for a three-way control or 65/35 for a fourway control. Volume is defined as vehicles only.

2. Collision Warrant: **For an all-way stop control, a high accident frequency is an average of four collisions per year over a three-year period.**

Only those accidents susceptible to relief through multi-way stop control must be considered (i.e., right angle and turning type collisions).

It is important to note that unwarranted All-way Stop Control devices should only be used in conjunction with other traffic calming treatments, rather than a sole measure in the area for traffic calming intentions.

The intersection locations should meet the following requirements:

1. Not be within 250 m of a controlled intersection, significant curve (smaller than 100 degrees), or vertical traffic calming device.
2. Not within 400m of another unwarranted stop sign.
3. Not at locations considered inappropriate due to grade, visibility or speed limit.