

APPENDIX J

Speed Management Corridors Review



WELLINGTON
COUNTY

Road Master Action Plan



Memo



To: Don Kudo, County of Wellington
From: Tim Kooistra, Dillon Consulting Limited (Dillon)
cc: Dennis Kar, Paul Bumstead, Dillon
Date: August 10, 2021
Subject: Wellington County RMAP – Speed Management Corridor Reviews
Our File: 20-3297

1.0

Introduction

The following memo presents the results of a speed management review of 16 corridors in Wellington County. The corridors reviewed were based on input from County staff and councillors on locations where there were known speeding concerns. A total of 27 segments, representing the 16 corridors (identified below), were assessed. The purpose of the review was to propose possible speed management measures to be implemented, including if posted speed limits should be adjusted and/or if any further speed mitigation such as physical or design matters needs to be planned, considered and/or implemented along these identified corridors.

The review was guided by the draft Speed Management Guidelines for Wellington County, produced by Dillon Consulting Limited as a component of the Road Master Action Plan (RMAP).

Each of the corridors was identified by the County of Wellington. The full list of the corridors reviewed are summarized below:

1. Wellington Road 124 from 6th Line to 10th Line (through both Brisbane and Erin)¹
2. Wellington Road 7 from Side Road 11 to First Line
3. Wellington Road 86 from Eight Line to 5697 Wellington Road 86
4. Wellington Road 19 from Wellington Road 16 to 8746 Wellington Road 19
5. Wellington Road 26 from Wellington Road 19 to Side Road 9
6. Wellington Road 50 from Highway 7 to Wellington Road 24
7. Wellington Road 124 from Guelph to Watson Parkway
8. Wellington Road 29 from Side Road 10 to 300 metres north of Wellington Road 124
9. Wellington Road 42 from Trafalgar Road (Wellington Road 24) to Winston Churchill Boulevard
10. Wellington Road 24 from Wellington Road 22 to Side Road 27 through Hillsburgh

¹ This corridor was originally identified as two different segments, although some sections of this corridor were overlapping with one another. For the purposes of this analysis, these two segments were combined.

11. Wellington Road 41 from City of Guelph Boundary to Wellington Road 37 (Arkell Road)
12. Wellington Road 36 from Highway 6 to Ochs Drive
13. Wellington Road 32 from Wellington Road 33 to Concession 2
14. Wellington Road 18 from Highway 6 to Scotland Avenue
15. Wellington Road 6 from Grey County Limit to Highway 6
16. Wellington Road 11 from Wellington Road 8 to Concession Road 8.

The location of these corridors is illustrated in **Figure 1**.

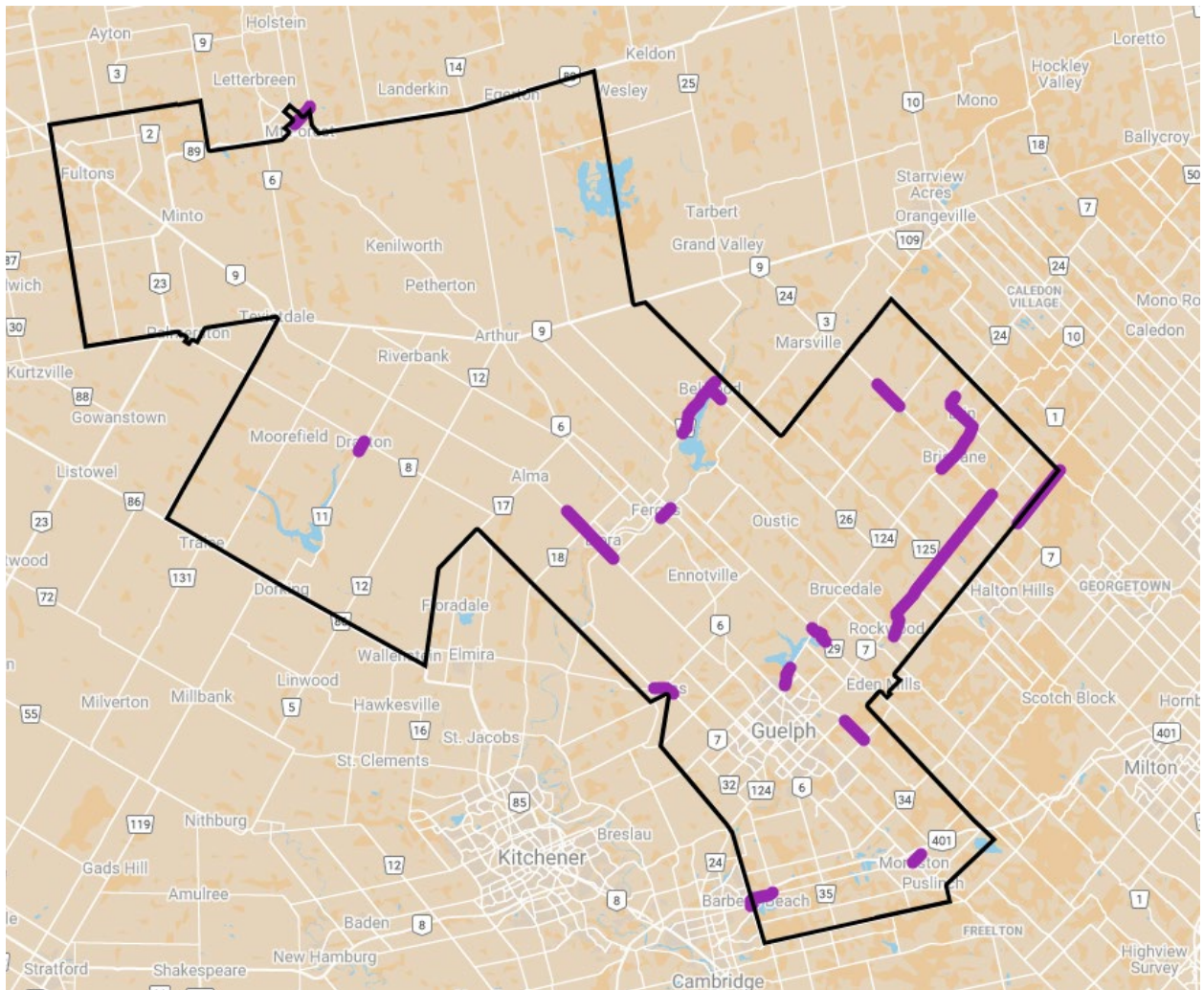


Figure 1: Context Map of Corridors Assessed

Feedback provided by the public on these specific corridors through the Social Pinpoint exercise was also collected and documented.

Following approval of the Speed Management Guidelines and overall approval of these case studies and technical recommendations, the next step in the RMAP will be to calculate higher-magnitude costs for each and prioritize implementation over five, 10 and 20-year horizon periods.

1.1

Case Study Assessments

In the below case study assessments, each corridor was initially assessed to confirm the appropriate posted speed in consideration of the role and function, the adjacent environment, and the prevailing road design. Technical conclusions related to posted speed limit changes and other solutions were brought forward that could be considered along each of the subject corridors. A range of speed management options can be considered for future implementation as follows:

- Regulatory Modifications
- Geometric Modifications
- Education / Enforcement
- Any combination of any two or more of these measures
- Do Nothing.

In all case studies, specific recommendations to review and potentially modify posted speed limits are identified, as well as any physical modifications required to address the identified speed issue. These recommendations reflect a technically preferred approach to addressing specific issues. The next step in the process is to bring the options and technical findings to decision-makers to determine the best solutions moving forward.

It is noted that there may be local sensitivities to regulatory changes, particularly where observed/measured speeds are higher than currently posted speed limits but those observed speeds align closely with the technically preferred posted speed limit (as determined using industry-standard techniques, i.e. Transportation Association of Canada (TAC)). In these cases, the potential solution may need to focus more on physical modifications to align the design of the road with the desired speed (such as urbanizing the full limits of the corridor) and/or increasing educational or enforcement measures that encourage conformance to the posted speed in the corridor.

Summary of Potential Solutions

Section 3.0 provides a detailed review of available information and identifies the technically preferred solutions for the subject corridors and segments.

Summary Chart

Table 1 provides a summary of the recommended solutions identified along each of the segments identified by Wellington County.

Table 1: Speed Management Corridor Review - Summary

Corridor	Problem Statements	Technical Finding – Posted Speed Limit Review	Potential Mitigation				Summary of Recommendations
			Regulatory Modification	Physical Modification	Education / Enforcement	Do Nothing	
Wellington Road 124 from 6 th Line to 10 th Line (through Brisbane and Erin, including Main Street)	<ul style="list-style-type: none">Average and 85th percentile speeds are found to be well above the posted speed limitsLimits of urban cross-sections do not adequately match some of the surrounding land-uses in some areasThe posted speed limit changes at locations and in ways that do not always match where either the surrounding land uses or road cross-sections change.	Decrease / Retain / Increase	X	X	-	-	<ul style="list-style-type: none">Several changes to posted speed limits (increases, decreases and transition adjustments)Introduce a flashing 60 km/h school zone fronting Brisbane Public SchoolConsiderations for additional PXOs within ErinIntroduction of traffic calming (curb extensions) through ErinUrbanization of some sections of the corridor both north and south of Erin.
Wellington Road 7 from Side Road 11 to First Line	<ul style="list-style-type: none">Southbound traffic on Wellington Road 7 approaching Wellington Road 18 enters the more developed (urban areas) on a downgradeThe majority of the Wellington Road 7 corridor features a more rural cross-section (gravel shoulders and no sidewalks) but is largely urban on the east side of the corridorGenerally, both the average speed and 85th percentile speed are noted to be well above the posted 50 km/h speed limit.	Increase	X	X	X	-	<ul style="list-style-type: none">Changes to posted speed limit along the entire corridor (50 km/h to 60 km/h)Speed reader signs facing traffic entering the recommended 60 km/h zone from both the north and southUrbanization of the entire corridor within the recommended 60 km/h zoneContinued enforcement from the Wellington County OPP.
Wellington Road 86 from Eight Line to 5697 Wellington Road 86	<ul style="list-style-type: none">High speeds on the corridor with the corridor constructed to a high design standardA small pocket of large single-family homes on both sides of the corridor to the southeast of Wellington Road 51.	Retain	-	-	X	X	<ul style="list-style-type: none">Retain the existing posted speed limit (80 km/h)Continued enforcement from the Wellington County OPP.
Wellington Road 19 from Wellington Road 16 to 8746 Wellington Road 19	<ul style="list-style-type: none">Both the average and 85th percentile speeds are measured to be higher than the posted speed both within and outside of BelwoodThere may be some demand for active transportation (walking, cycling) along the Wellington Road 19 corridor due to the presence of the retirement community and campgrounds near 5th Line.	Retain / Increase	X	X	-	-	<ul style="list-style-type: none">Changes to posted speed limits (50 km/h to 60 km/h) through BelwoodSpeed reader signs facing traffic entering BelwoodUrbanization of corridor through BelwoodConsideration for a multi-use pathway near campgrounds.
Wellington Road 26 (North/South Broadway Street) from Wellington Road 19 to Side Road 9	<ul style="list-style-type: none">High speeds measured well above the posted speed limitsRelatively steep downgrades approaching the Grand River from both sidesPosted speed limit change occurs in the vicinity of Side Road 9. However, the road cross-section and adjacent environment remain the sameLimited urban context along the cross-section, such as curbs, sidewalks, etc.	Retain / Increase	X	X	X	-	<ul style="list-style-type: none">Changes to posted speed limit south of Grand River (50 km/h to 60 km/h)Retain the existing posted speed limit (50 km/h) from Grand River to Wellington Road 19Add a second speed display sign facing northbound trafficConsider urbanizing the full limits of the corridor.

Wellington Road 50 from Highway 7 (Main Street South) to Wellington Road 24 (Trafalgar Road)	<ul style="list-style-type: none"> Where the posted speed limit presently changes from 80 km/h to 50 km/h to the east of Rockwood, the cross-section and surrounding land use remain the same On Wellington Road 50 between 3rd Line and 5th Line, the posted speed limit is lower (70 km/h), while the surrounding blocks in terms of context, cross-section and surrounding land uses are nearly identical and have a posted speed limit of 80 km/h. 	Decrease / Retain / Increase	X	-	-	X	<ul style="list-style-type: none"> Retention of existing posted speed limit within Rockwood (50 km/h) Changes to posted speed limit east of railway (50 km/h and 80 km/h to 70 km/h) Changes to posted speed limit between 3rd Line and 5th Line (70 km/h to 80 km/h) Review advisory speed sign tabs at horizontal curves east of the railway crossing.
Wellington Road 124 from City of Guelph boundary to Watson Road North	<ul style="list-style-type: none"> Average and 85th Percentile speeds are measured well above the posted speed limit of 50 km/h Once within the City of Guelph boundaries, the surrounding context becomes urban (both cross-section and surrounding land use found on both sides of the corridor). 	Increase	X	X	-	-	<ul style="list-style-type: none"> Changes to the posted speed limit (50 km/h to 70 km/h) Consider urbanizing limits of the corridor.
Wellington Road 29 from Side Road 10 to 300 metres north of Wellington Road 124	<ul style="list-style-type: none"> Average and 85th percentile speeds are notably higher than the posted speed limit of 60 km/h A small number of residential properties along Wellington Road 29 both north and south of Wellington Road 124 Relatively tight horizontal curves along Wellington Road 29 to the south of Wellington Road 124. 	Increase	X	-	X	-	<ul style="list-style-type: none"> Changes to the posted speed limit (60 km/h to 70 km/h) Add speed display signs facing horizontal curves Review advisory speed sign tabs on horizontal curves.
Wellington Road 42 from Wellington Road 24 (Trafalgar Road) to Wellington Road 25 (Winston Churchill Boulevard)	<ul style="list-style-type: none"> At both locations where speed and volume data were collected, the average and 85th percentile speeds are measured to be much higher than the posted speed limit Within Ballinfad, the Wellington Road 42 corridor is constructed to a rural cross-section, even though there are urban land uses (single-family residential homes) on either side of the corridor. 	Increase	X	X	X	-	<ul style="list-style-type: none"> Changes to the posted speed limit (50 km/h to 60 km/h) within Ballinfad Consider urbanizing some portions of the corridor.
Wellington Road 24 (Trafalgar Road) from Wellington Road 22 to Side Road 27 through Hillsburgh	<ul style="list-style-type: none"> Relatively steep grade entering Hillsburgh from the north Average and 85th percentile speeds are measured well above the posted speed limit of 40 km/h Presence of Ross R. MacKay Public School along Wellington Road 24. 	Increase	X	-	X	-	<ul style="list-style-type: none"> Changes to the posted speed limit (40 km/h to 50 km/h) within Hillsburgh Changes to the posted speed limit (40 km/h to 60 km/h) north of Hillsburgh Introduction of a flashing 40 km/h school zone fronting Ross. R. MacKay Public School Introduce CSZ through downtown Hillsburgh Introduce ASE focusing on southbound traffic entering downtown Hillsburgh from the north Add PXO near Ross. R. MacKay Public School Review opportunities for a PXO in downtown Hillsburgh.
Wellington Road 41 (Watson Road South) from City of Guelph Boundary to Wellington Road 37 (Arkell Road)	<ul style="list-style-type: none"> Wellington Road 41 has some vertical curves when travelling north At the northern limits, the corridor enters a partially built-out neighbourhood with large single-family residential properties found on both sides of the corridor Relatively high demand for on-street parking (paved shoulder) on the east side of Wellington Road 41 fronting the Smith Property Loop Hiking Trail. 	Decrease / Retain / Increase	X	X	-		<ul style="list-style-type: none"> Increases to the posted speed limit (50 km/h to 60 km/h) closer to the city of Guelph boundary Reductions to the posted speed limit (80 km/h to 70 km/h) to the north of Arkell Retention of the existing posted speed limit (50 km /h) within Arkell Modification of road cross-section between Eramosa Rive and Guelph boundary.

Wellington Road 36 (Badenoch Street) from Highway 6 to Ochs Drive	<ul style="list-style-type: none"> Average and 85th percentile speeds are measured to be much higher than the posted speed limit of 50 km/h The portion of Wellington Road 36 between Back Street and Ochs Drive features large single-family residential properties on both sides of the roadway but features a rural cross-section. 	Retain / Increase	X	X	-	-	<ul style="list-style-type: none"> Retain the existing posted speed limit (50 km/h) between Highway 6 and 40 metres east of Back Street Changes to the posted speed limit (50 km/h to 60 km/h) from 40 metres east of Back Street to 150 metres east of Ochs Drive Adjustment of the posted speed limit transition between the recommended 60 km/h and the existing 80 km/h should be located 150 metres east of Ochs Drive Urbanization of the corridor between Back Street and Ochs Drive.
Wellington Road 32 (Lake Road) from Wellington Road 33 (Townline Road) to Concession 2	<ul style="list-style-type: none"> Average and 85th Percentile speeds are measured to be much higher than the posted speed limit of 50 km/h No amenities for pedestrians. 	Increase	X	X	-	-	<ul style="list-style-type: none"> Changes to the posted speed limit (50 km/h to 70 km/h) on the west portion of Wellington Road 32 Changes to the posted speed limit (50 km/h to 60 km/h) on the east portion of Wellington Road 32 Review opportunities for a PXO at McClintock Drive / Butler Avenue Urbanization of the east portion of the corridor.
Wellington Road 18 (Belsyde Avenue East) from Highway 6 (Tower Street South) to Wellington Road 43 (Scotland Avenue)	<ul style="list-style-type: none"> Busy urban corridor within Fergus, with it being likely that there are a higher number of trucks found on the corridor given its arterial nature Several schools (one elementary, one secondary) along the corridor. 	Retain	X	-	X	X	<ul style="list-style-type: none"> Retain the existing posted speed limit (50 km/h) Introduce a 40 km/h when flashing school zone Introduce ASE within the 40 km/h when flashing school zone.
Wellington Road 6 (Sligo Road) from Grey County Limit to Highway 6 (Main Street North)	<ul style="list-style-type: none"> Based on the available data, 85th percentile speeds are measured to be well over the posted speed limit of 50 km/h Varying degrees of urbanization along the corridor with levels of urban cross-sections provided along the corridor Rural cross-section of corridor found directly in front of Wellington Heights High School. 	Retain / Increase	X	X	-	-	<ul style="list-style-type: none"> Retain posted speed limit (50 km/h) from Highway 6 east to across from the high school Changes to the posted speed limit (50 km/h and 60 km/h to 70 km/h) from the high school to the Wellington County /- Grey County boundary Urbanize the portion of the corridor in front of the high school Add signage (chevrons, speed advisory signage) at the horizontal curve found near the county line.
Wellington Road 11 (Wellington Street South) from Wellington Road 8 (Main Street) to Concession Road 8	<ul style="list-style-type: none"> Operating speeds measured above the posted speed limit A long stretch of downhill when travelling north towards downtown Drayton Presence of Drayton Heights Public School along the corridor. 	Retain	X	X	X	-	<ul style="list-style-type: none"> Adjust the transition point between the existing 50 km/h and 80 km/h zones so it occurs closer to the urban/rural split Replace the existing 40 km/h with a 40 km/h when flashing school zone Introduce speed display boards facing northbound traffic to the north of Drayton Heights Public School Introduce ASE within the recommended 40 km/h when flashing school zone Consider the need for a PXO at Andrews Drive Modify the road cross-section to “tighten” the travel lanes and road up.

Corridor Analysis

Wellington Road 124 from 6th Line to 10th Line (through Brisbane and Erin, including Main Street)

Corridor Context

The following describes the characteristics of each section of the corridor.

Between 6th Line to just west of Wellington Road 52 (Main Street)

- Partially rural especially on the south side. The north side has some large residential properties abutting the corridor, including several low-density subdivisions connecting to the corridor
- A relatively high number of driveway accesses
- Brisbane Public School is located on the north side of the corridor and is found east of Wellington Road 24. No formalized School Zone is in place
- Traffic signals at Wellington Road 124 and Wellington Road 52 (Main Street) and also at Wellington Road 124 and Wellington Road 24 (Trafalgar Road)
- From west to east, the posted speed limit on Wellington Road 124 from 6th Line to Wellington Road 52 is:
 - 80 km/h from 6th Line
 - Dropping to 60 km/h approximately 330 metres west of Wellington Road 24
 - 60 km/h for approximately 1.0 kilometres (including in front of Brisbane Public School)
 - Increases to 80 km/h for approximately 825 metres
 - Drops to 60 km/h for an additional 875 metres as it enters the urbanized section
 - Drops to 40 km/h to Wellington Road 52.

Between Wellington Road 52 (Main Street) to Wellington Road 23 (Shamrock Road)

- Largely urban with an urban cross-section from Wellington Road 52 north to the Elora-Cataract Trailway. North of the Trailway, the corridor transitions to a rural cross-section with paved/gravel shoulders, although a multi-use pathway has been constructed on the east side of the corridor up to Tim Hortons
- Several traffic signals along the corridor, including at Wellington Road 52, East Church Street/Church Boulevard, Dundas Street, Wellington Road 23 (Shamrock Road)
- Town Core/ Downtown Context between East Church Street and Millwood
- Balance of corridor more suburban to the north and south of the town core
- No schools or parks are found adjacent to the corridor, although the Erin Agricultural Society (Fairgrounds) are present for a short portion on the west side of the corridor

- From Wellington Road 52 north through downtown Erin to just north of the Trailway, the posted speed limit is 40 km/h. For a short distance south of Wellington Road 23, the posted speed limit increases to 50 km/h.

Between Wellington Road 23 (Shamrock Road) to 10 Line

- Largely rural cross-section along this road segment
- A limited number of driveway accesses
- From Wellington Road 23 to just east of Erin Park Drive, the posted speed limit is 50 km/h, but increases to 80 km/h about 120 metres east of Erin Park Drive.

Note: Wellington Road 124 is noted to be east-west, with the exception along Main Street, where it is noted to be north-south.

3.1.2 Public Feedback

Through the Social Pinpoint exercise, we received the following feedback from the public:

- *“Speed radar. School zone! Too many in/out traffic at school”*
- *“Main Street is poorly designed, multiple manhole covers right in the tire tracks of northbound traffic. All have sunk several inches with excessive noise from trucks bouncing through them hours a day”*
- *“Make this a no truck route”*
- *“Numerous speeding complaints through Erin”*
- *“Traffic travelling far too fast - no one obeys the speed limit - this is also a residential area! Can be terrifying - truck traffic is too fast to stop in case of emergency”*
- *“Transport trucks travelling at double the posted speed. We need traffic calming speed humps”.*

3.1.3 Traffic Data

The following traffic data was collected and used as part of the speed management analysis:

Wellington Road 124 just east of 6th Line:

- Data Collection Dates: 2019-05-30
- Collection By: Wellington County
- 8,889 vehicles
- Posted Speed Limit = 80 km/h
- Average Speed = 89 km/h
- 85th Percentile = 99 km/h
- 95th Percentile = 105 km/h.

Wellington Road 124 at Wellington Road 24 in Brisbane:

- Data Collection Dates: 2020-12-10 to 2020-12-14
- Collection By: OPP
- 18,046 vehicles recorded over four days (average 4,512 vehicles per day)
- Posted Speed Limit = 60 km/h
- Average Speed = 65 km/h
- 85th Percentile = 72 km/h
- 95th Percentile = 79 km/h
- Nine collisions in the last 10 years, one collision in the last three years.

Wellington Road 124 fronting Brisbane Public School:

- Data Collection Dates: 2019-05-30
- Collection By: Wellington County
- 8,337 vehicles
- Posted Speed Limit = 60 km/h
- Average Speed = 72 km/h
- 85th Percentile = 81 km/h
- 95th Percentile = 88 km/h.

Wellington Road 124 (Main Street) between Dundas Street and English Street in Erin:

- Data Collection Dates: 2019-05-30
- Collection By: Wellington County
- 9,864 vehicles
- Posted Speed Limit = 40 km/h
- Average Speed = 46 km/h
- 85th Percentile = 54 km/h
- 95th Percentile = 59 km/h.

3.1.4 Problem Statements

- Average and 85th percentile speeds are found to be well above the posted speed limits
- Limits of urban cross-sections do not adequately match some of the surrounding land-uses in some areas
- The posted speed limit changes at locations and in ways that do not always match where either the surrounding land uses or road cross-sections change.

3.1.5 Posted Speed Limit Review

The TAC Canadian Guidelines for Establishing Posted Speed Limits was used to conduct a speed management review on each corridor segment. The following were the results.

Wellington Road 124 between 6th Line to just west of Wellington Road 52 (Main Street):

- Consider as a Major Rural Arterial Road with one lane per direction
 - Horizontal Geometry = Lower Risk
 - Vertical Geometry = Lower Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Lower Risk
 - Pedestrian Exposure = Medium Risk
 - Cyclist Exposure = Higher Risk
 - Pavement Surface = Lower Risk
 - Two signalized Intersections
 - Four side-street STOP controlled intersections
 - 99 driveway accesses
 - On-Street Parking = Lower Risk.

Current Posted Speed Limit = 80 km/h / 60 km/h / 80 km/h / 60 km/h / 40 km/h

TAC Recommended Posted Speed Limit = 70 km/h

- If considered as a Major Urban Arterial Road with one lane per direction.

TAC Recommended Posted Speed Limit = 60 km/h

Additional note, the existing 60 km/h posted speed limit on Wellington Road 24 to the north and south of Wellington Road 124 should be assessed and may need to be modified based on TAC guidelines.

Wellington Road 124 (Main Street) between Wellington Road 52 (Main Street) and Wellington Road 23 (Shamrock Road)

- Consider as a Major Urban Arterial Road with one lane per direction
 - Horizontal Geometry = Lower Risk
 - Vertical Geometry = Lower Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Lower Risk
 - Pedestrian Exposure = Lower Risk
 - Cyclist Exposure = Higher Risk
 - Pavement Surface = Lower Risk
 - Four signalized Intersections
 - 16 side-street STOP controlled intersections
 - 100+ driveway accesses
 - On-Street Parking = Higher Risk.

Current Posted Speed Limit = 40 km/h / 50 km/h

TAC Recommended Posted Speed Limit = 60 km/h

Wellington Road 124 (Main Street) between Wellington Road 23 (Shamrock Road) and 10 Line

- Consider as a Major Rural Arterial Road with one lane per direction
 - Horizontal Geometry = Medium Risk
 - Vertical Geometry = Lower Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Lower Risk
 - Pedestrian Exposure = Lower Risk
 - Cyclist Exposure = Higher Risk
 - Pavement Surface = Lower Risk
 - One signalized Intersections
 - Two side-street STOP controlled intersections
 - Six driveway accesses
 - On-Street Parking = Lower Risk.

Current Posted Speed Limit = 50 km/h / 80 km/h

TAC Recommended Posted Speed Limit = 80 km/h

3.1.6 Potential Mitigation

Described options and their specific relevance or context in this segment:

- **Regulatory Modifications** – implementing segment-appropriate speed limit changes align the driver behaviour with the design of the road. Consistent design results in less variation in driver behaviour which makes the expectations of all users more homogenous. Less variation in behaviour makes for greater predictability and makes the environment safer for all users. Viable option.
- **Geometric Modifications** – Controlling the speed of vehicles can be achieved by aligning the design of the road with the desired posted speed. This can be an expensive undertaking over long corridors with varied environments. Viable but expensive option.
- **Education / Enforcement** – consistent enforcement/police presence over this length of roadway is a cost and resource issue. Within the downtown area, enforcement would be a disruption to the operation of the road and the village environment. Over long sections of road, intense enforcement is typically not viable, infrequent enforcement not effective.
- **Do Nothing** – four segments, three significant speeding or collision issues. Do nothing not an option for three of the four segments.

3.1.7 Recommendations

The posted speed limit recommendations take into account the TAC recommended posted speed limit but do consider other factors such as changes to the surrounding land uses and changes to the road cross-section. As a result, the actual posted speed limit recommendation may not fully align with the TAC recommended speed limit. The following recommendations with regard to the posted speed limits for this corridor:

- From 6th Line to 375 metres west of Wellington Road 24 = **Retain at 80 km/h**
- From 375 metres west of Wellington Road 24 to 300 metres west of Wellington Road 52 (Main Street) = **Adjust from 40 km/h, 60 km/h or 80 km/h to 70 km/h**
- **Introduce a '60 km/h when Flashing' School Zone** fronting Brisbane Public School
- From 300 metres west of Wellington Road 52 (Main Street) to Wellington Road 52 (Main Street) = **Increase from 40 km/h to 50 km/h**
- From Wellington Road 52 north to the Elora-Cataract Trailway = **Increase from 40 km/h to 50 km/h**, except for portion through Downtown Erin between East Church Street and Millwood Street, which can be **retained at 40 km/h**
- From the Elora-Cataract Trailway to the immediate east of Erin Park Drive = **Increase from 40 km/h or 50 km/h to 60 km/h**
- From the immediate east of Erin Park Drive to 10 Line = **Increase from 50 km/h to 80 km/h.**

Figure 2 and **Figure 3** show the existing and recommended posted speed limits along Wellington Road 124 through Brisbane and Erin, respectively.

Regardless of whether the recommendations related to the posted speed limit are endorsed, the speed management action plan along the corridor should also include the following improvements:

- Introducing a **Community Safety Zone** in the retained 40 km/h speed limit zone through Downtown Erin
- Introducing **curb extensions** along Wellington Road 124 (Main Street) on the west side of the corridor north and south of Downtown Erin. These could be located at intersections, mid-block and/or any planned pedestrian crossovers (PXOs)
- Introducing a **pedestrian crossover** on Wellington Road 124 (Main Street) between either English Street and Scotch Street
- Introducing a **pedestrian crossover** on Wellington Road 124 (Main Street) at the Elora-Cataract Trailway
- In the long-term, **modify the cross-section** on Wellington Road 124 west of Wellington Road 52 (at Main Street) to extend the barrier curb and gutter (urban –cross-section) so it matches up with the recommended limits of the 50 km/h speed limit zone
- In the long-term, **modify the cross-section** on Wellington Road 124 (Main Street) north of the Elora-Cataract Trail crossing to extend the urban cross-section across through the intersection with Wellington Road 23 and continuing up to the developed limits around Erin Park Drive.

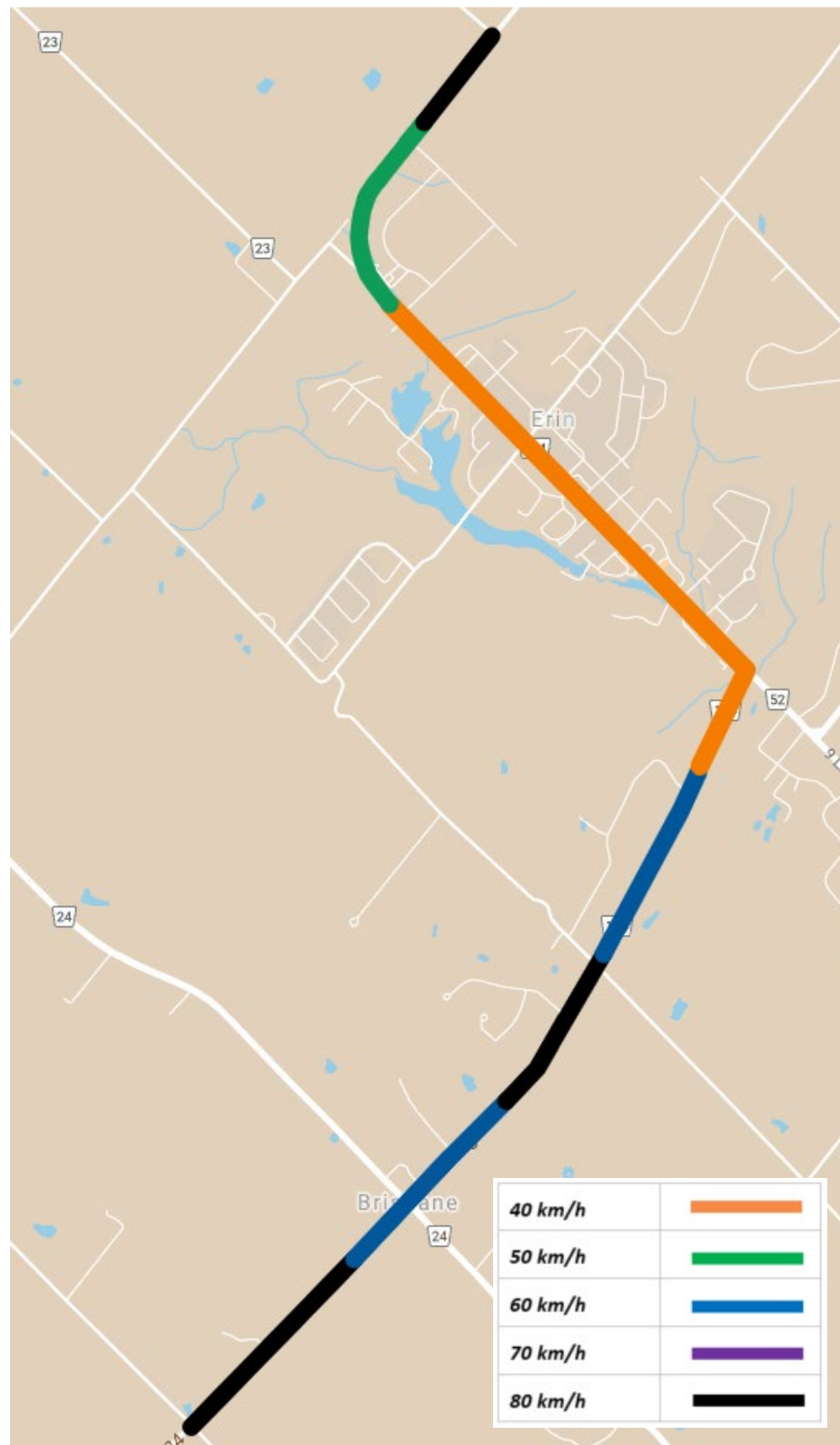


Figure 2: Existing Posted Speed Limits, Wellington Road 124, Brisbane and Erin

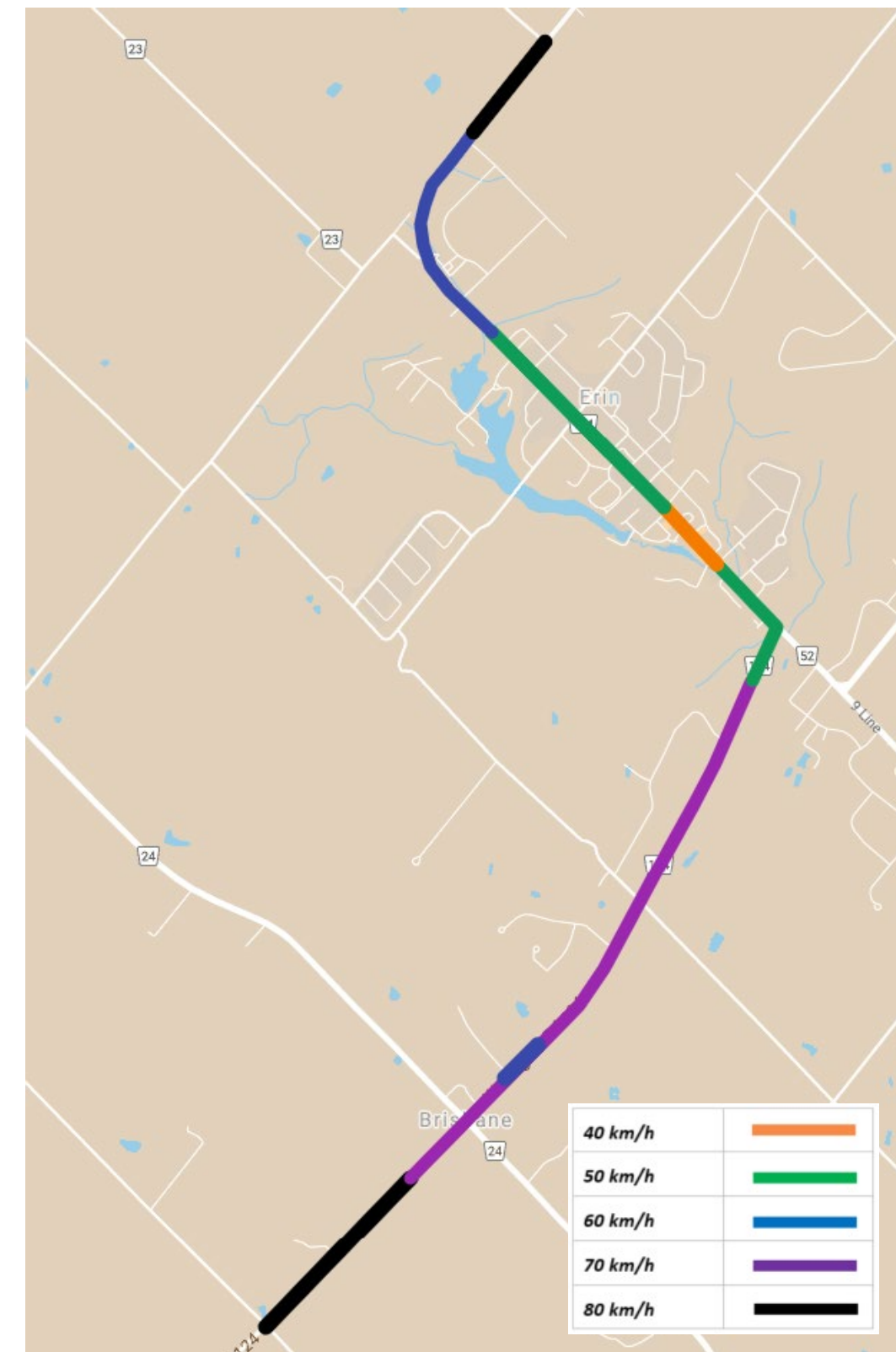


Figure 3: Recommended Posted Speed Limits, Wellington Road 124, Brisbane and Erin

3.2

Wellington Road 7 from Side Road 11 to First Line

3.2.1

Corridor Context

- The majority of the corridor is constructed to a rural cross-section with gravel shoulders and no pedestrian/cycling amenities
- The posted speed limit between William Street and First Line is 50 km/h, and is 80 km/h to the north of William Street and south of First Line
- For a short distance north and south of Wellington Road 18, barrier curb and gutter are found, and a traffic signal is found at the intersection of Wellington Road 7 and Wellington Road 18
- Fronting the Elora Municipal Cemetery, the road cross-section is rural (gravel shoulders) and land uses on the west side of the corridor are rural
- Between David Street and Wellington Road 21, the road cross-section is more urban (barrier curb and gutter) and more urban land-uses are found on either side of the corridor
- Between Wellington Road 21 and York Street, the road cross-section is largely urban (barrier curb and gutter or paved shoulders), and a centre left-turn lane is present
- Between York Street and First Street, the road transitions to more of an rural cross-section (gravel shoulders), with urban land uses found on the east side of the corridor and more rural land uses on the west side of the corridor.

3.2.2

Public Feedback

Through the Social Pinpoint exercise, we received the following feedback from the public:

- *"This signalized intersection has very short amber lights and many trucks are going through it on the red. And there is heavy truck traffic at this one so there is going to be an accident."*
- *"Excessive speeding on section of County Road 7 from Salem to County Road 21 Unsafe due to speeding transports and vehicles."*
- *"Motorists regularly exceed the posted 50 km speed limit in this stretch of Wellington County Rd 7 despite the OPP routinely setting up speed traps at the Elora Cemetery."*

3.2.3

Traffic Data

Wellington Road 7 near South Street

- Data Collection Dates: 2020-11-14 to 2020-12-18
- Collection By: OPP
- 20,821 vehicles recorded over four days (average 5,205 vehicles per day)
- Posted Speed Limit = 50 km/h

- Average Speed = 62 km/h
- 85th Percentile = 71 km/h
- 95th Percentile = 79 km/h
- Six collisions in last 10 years, three collisions in last three years.

Wellington Road 7 between Side Road 11 and William Street

- Data Collection Date: 6/6/2018
- Collected by: Wellington County
- AADT = 6,254
- Posted Speed Limit = 80 km/h
- Average Speed: 87 km/h
- 85th Percentile = 97 km/h
- 95th Percentile = 101 km/h.

Wellington Road 7 between Wellington Road 18 and David Street / Middlebrook Road

- Data Collection Date: 6/6/2018
- Collected by: Wellington County
- AADT = 6,741
- Posted Speed Limit = 50 km/h
- Average Speed: 58 km/h
- 85th Percentile = 67 km/h
- 95th Percentile = 71 km/h.

Wellington Road 7 between David Street / Middlebrook Road and Wellington Road 21

- Data Collection Date: 07/10/2019
- Collected by: Wellington County
- AADT = 9,711
- Posted Speed Limit = 50 km/h
- Average Speed: 58 km/h
- 85th Percentile = 67 km/h
- 95th Percentile = 71 km/h.

Wellington Road 7 between Wellington Road 21 and First Line

- Data Collection Date: 07/25/2017
- Collected by: Wellington County
- AADT = 10,780
- Posted Speed Limit = 50 km/h
- Average Speed: 53 km/h
- 85th Percentile = 61 km/h
- 95th Percentile = 68 km/h.

3.2.4

Problem Statements

- Southbound traffic on Wellington Road 7 approaching Wellington Road 18 enters the more developed (urban areas) on a downgrade
- The majority of the Wellington Road 7 corridor features a more rural cross-section (gravel shoulders and no sidewalks) but is largely urban on the east side of the corridor
- Generally, both the average speed and 85th percentile speed are noted to be well above the posted 50 km/h speed limit.

3.2.5

Posted Speed Limit Review

The TAC Canadian Guidelines for Establishing Posted Speed Limits was used to conduct a speed management review on each corridor segment. The following were the results.

Wellington Road 7 between Side Road 11 and William Street:

- Consider as a Major Rural Arterial Road with one lane per direction.
 - Horizontal Geometry = Lower Risk
 - Vertical Geometry = Medium Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Lower Risk
 - Pedestrian Exposure = Lower Risk
 - Cyclist Exposure = Medium Risk
 - Pavement Surface = Lower Risk
 - One signalized Intersection
 - Two side-street STOP controlled intersections
 - 22 driveway accesses
 - On-Street Parking = Lower Risk.

Current Posted Speed Limit = 50 km/h / 80 km/h
TAC Recommended Posted Speed Limit = 80 km/h

- If considered as a Major Urban Arterial Road with one lane per direction.

TAC Recommended Posted Speed Limit = 70 km/h

Wellington Road 7 between William Street and David Street:

- Consider as a Major Urban Arterial Road with one lane per direction.
 - Horizontal Geometry = Lower Risk
 - Vertical Geometry = Medium Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Medium Risk
 - Pedestrian Exposure = Medium Risk
 - Cyclist Exposure = Lower Risk
 - Pavement Surface = Lower Risk
 - One signalized intersection
 - Five side-street STOP controlled intersections
 - 47 driveway accesses
 - On-Street Parking = Lower Risk.

Current Posted Speed Limit = 50 km/h

TAC Recommended Posted Speed Limit = 70 km/h

If considered as a Major Rural Arterial Road with one lane per direction.

TAC Recommended Posted Speed Limit = 70 km/h

Wellington Road 7 between David Street and Wellington Road 21:

- Consider as a Major Urban Arterial Road with one lane per direction.
 - Horizontal Geometry = Medium Risk
 - Vertical Geometry = Higher Risk
 - Average Lane Width = Lower Risk
 - Roadside Hazards = Medium Risk
 - Pedestrian Exposure = Higher Risk
 - Cyclist Exposure = Lower Risk
 - Pavement Surface = Lower Risk
 - One signalized intersection
 - Four side-street STOP controlled intersections
 - 19 driveway accesses
 - On-Street Parking = Lower Risk.

Current Posted Speed Limit = 50 km/h

TAC Recommended Posted Speed Limit = 60 km/h

Wellington Road 7 between Wellington Road 21 and First Line:

- Consider as a Major Urban Arterial Road with one lane per direction.
 - Horizontal Geometry = Lower Risk
 - Vertical Geometry = Lower Risk
 - Average Lane Width = Lower Risk
 - Roadside Hazards = Medium Risk
 - Pedestrian Exposure = Medium Risk
 - Cyclist Exposure = Lower Risk
 - Pavement Surface = Lower Risk
 - One signalized intersection
 - Four side-street STOP controlled intersections
 - 32 driveway accesses
 - On-Street Parking = Lower Risk.

Current Posted Speed Limit = 50 km/h

TAC Recommended Posted Speed Limit = 70 km/h

3.2.6 Potential Mitigation

Described options and their specific relevance or context in this segment:

- **Regulatory Modifications** – Implementing segment-appropriate speed limit changes align the driver behaviour with the design of the road. Consistent design results in less variation in driver behaviour which makes the expectations of all users more homogenous. Less variation in behaviour makes for greater predictability and makes the environment safer for all users. Viable option.
- **Geometric Modifications** – Controlling the speed of vehicles can be achieved by aligning the design of the road with the desired posted speed. This can be an expensive undertaking over long corridors with varied environments. Viable but expensive option.
- **Education / Enforcement** – Consistent enforcement/police presence over this length of roadway is a cost and resource issue. Enforcement may be a disruption to the operation of the road given the high number of vehicles and/or trucks. Over long sections of road, intense enforcement is typically not viable, infrequent enforcement not effective.
- **Do Nothing** – Significant speeding or collision issues. Do nothing is not an option for three of the four segments.

The posted speed limit recommendations take into account the TAC recommended posted speed limit but do consider other factors such as changes to the surrounding land uses and changes to the road cross-section. As a result, the actual posted speed limit recommendation may not fully align with the TAC recommended speed limit. The following recommendations with regard to the posted speed limits for this corridor:

- From Side Road 11 to the immediate north of the driveway access to the immediate north of William Street = **Retain at 80 km/h**
- From the immediate north of William Street to the immediate south of First Line = **Increase from 50 km/h to 60 km/h**
- From the immediate south of First Line to Second Line = **Retain at 80 km/h.**

Figure 4 and **Figure 5** shows the recommended posted speed limit along the corridor, respectively.

Regardless of whether the recommendations related to the posted speed limit are endorsed, the speed management action plan along the corridor should also include the following improvements:

- Introduce a **speed display (radar) board** facing southbound traffic when entering the recommended 60 km/h posted speed zone (just south of William Street)
- Introduce a **speed display (radar) board** facing northbound traffic when entering the recommended 60 km/h posted speed zone (just north of First Line)
- In the long-term, **urbanize the road's cross-section** on Wellington Road 7 between First Line and William Street to introduce barrier curb and gutter, street lighting, cycling amenities as well as a sidewalk on one or both sides of the road. It is recommended this more urban cross-section ultimately extends fully through the limits of the recommended 60 km/h zone, extending between William Street and First Line
- Liaise with the Wellington County OPP to provide ongoing and periodic **enforcement** along the Wellington Road 7 corridor.

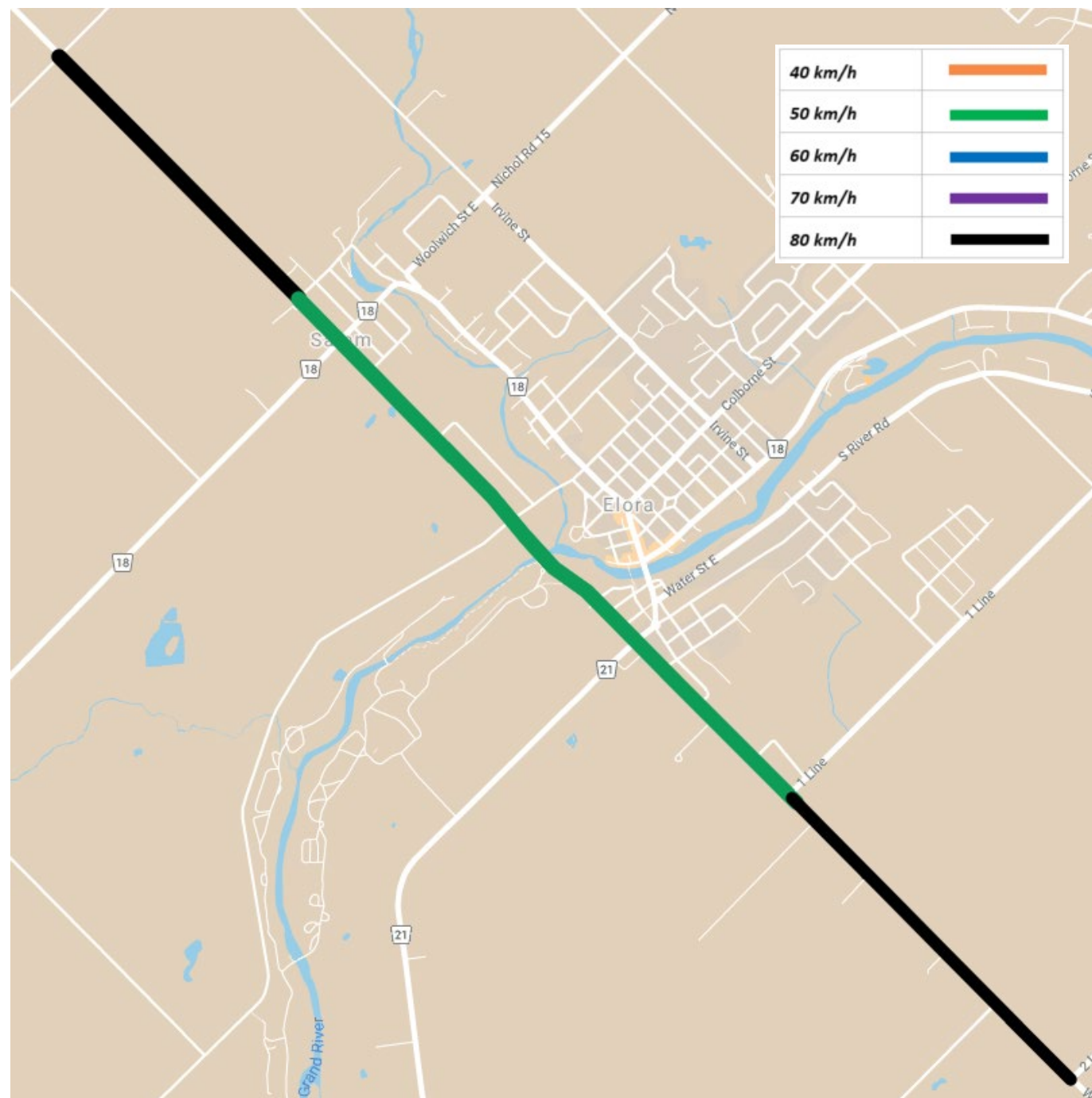


Figure 4: Existing Posted Speed Limits, Wellington Road 7, north of Wellington Road 18

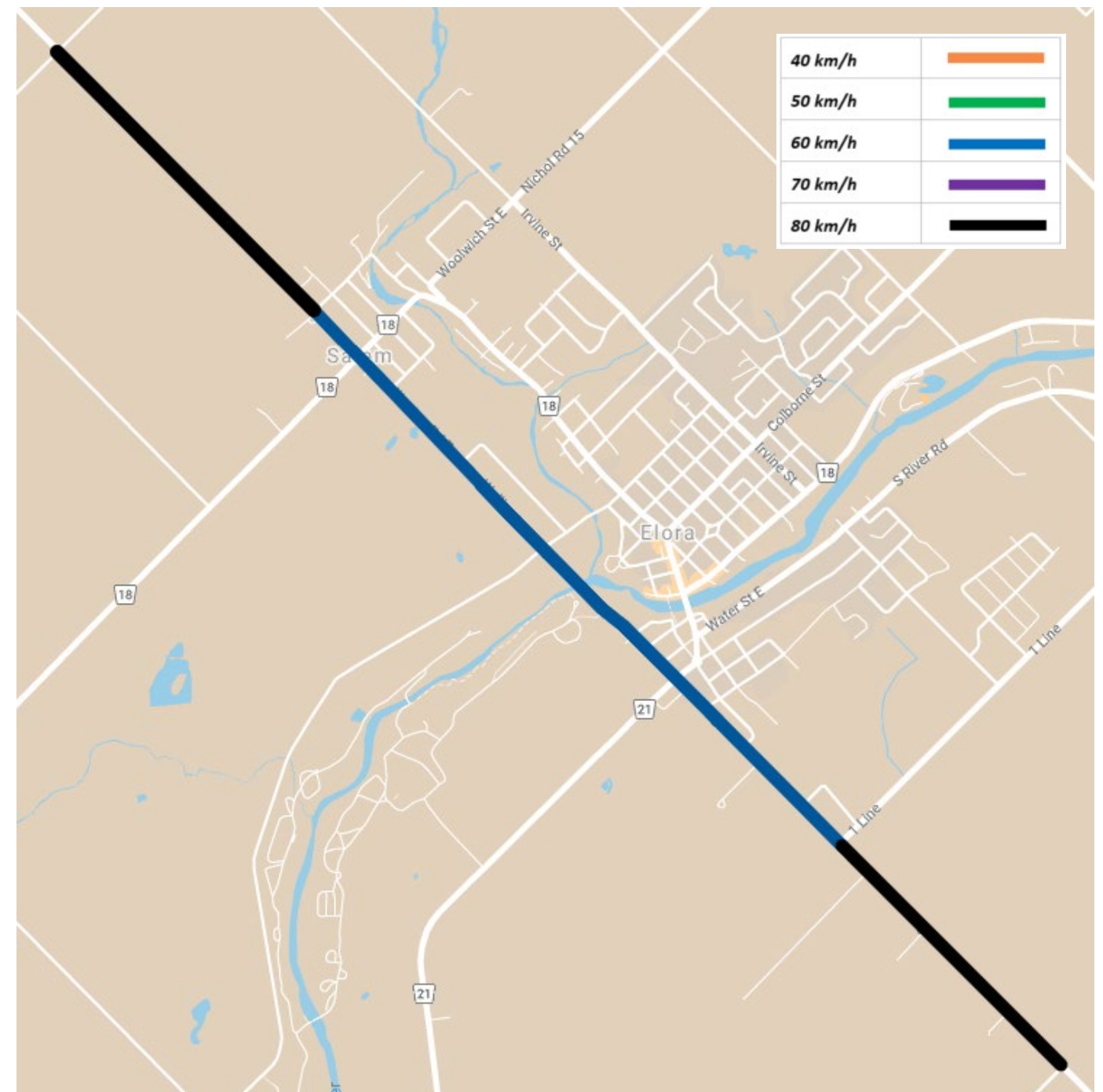


Figure 5: Recommended Posted Speed Limits, Wellington Road 7, north of Wellington Road 18

3.3

Wellington Road 86 from Eight Line to 5697 Wellington Road 86

3.3.1

Corridor Context

- The corridor is constructed to a rural cross-section with gravel shoulders
- Before the late 1990s, this corridor was previously under the jurisdiction of the Ministry of Transportation, Ontario (MTO) and was designed and constructed to provincial specifications
- An 80 km/h posted speed limit
- Traffic Signal at the intersection of Wellington Road 86 and Wellington Road 51
- In 2020, Wellington County introduced pedestrian heads and countdown signals at the Wellington Road 86 and Wellington Road 51 intersection to help provide drivers notice of when the traffic signal was forecasted to change phases
- Large single-family homes on both sides of Wellington Road 86 to the southeast of Wellington Road 51.

3.3.2

Public Feedback

Through the Social Pinpoint exercise, we received the following feedback from the public:

- *“Two major accidents with residential properties on both sides. It should be a 70km/h.”*
- *“Should be a 50km/hr in the town just as is for others. Start of the golf course and slightly beyond the 86 and 51 intersection. Also, signage for NO Engine Brakes is needed. Frequently hearing and seeing the transports and common drivers are going so fast that they skid and screech to a stop, it disturbs the community.”*

3.3.3

Traffic Data

The following traffic data was collected and used as part of the speed management analysis:

Wellington Road 86 between Wellington Road 51 and Wellington Road 30

- Data Collection Dates: 2019-06-26
- Collection By: Wellington County
- 11,527 vehicles recorded
- Posted Speed Limit = 80 km/h
- Average Speed = 93 km/h
- 85th Percentile = 102 km/h
- 95th Percentile = 109 km/h.

Wellington Road 86 at Wellington Road 51

- Data Collection Dates: 2020-12-18 to 2020-12-25
- Collection By: OPP
- 29,961 vehicles recorded over seven days (average four, 280 vehicles per day)
- Posted Speed Limit = 80 km/h
- Average Speed = 84 km/h
- 85th Percentile = 93 km/h
- 95th Percentile = 100 km/h
- 10 collisions in the last 10 years, five collisions in the last three years.

3.3.4 Problem Statement

- High speeds on Wellington Road 86 with the corridor constructed to a high design standard (former MTO Highway)
- A small pocket of large single-family homes on both sides of the Wellington Road 86 corridor to the southeast of Wellington Road 51.

3.3.5 Posted Speed Limit Review

The TAC Canadian Guidelines for Establishing Posted Speed Limits was used to conduct a speed management review on each corridor segment. The following were the results.

Wellington Road 86 between Eight Line and 5697 Wellington Road 86:

- Consider as a Major Rural Arterial Road with one lane per direction
 - Horizontal Geometry = Medium Risk
 - Vertical Geometry = Lower Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Lower Risk
 - Pedestrian Exposure = Lower Risk
 - Cyclist Exposure = Lower Risk
 - Pavement Surface = Lower Risk
 - One signalized Intersection
 - Two side-street STOP controlled intersections
 - 25 driveway accesses
 - On-Street Parking = Lower Risk.

Current Posted Speed Limit = 80 km/h

TAC Recommended Posted Speed Limit = 80 km/h

Described options and their specific relevance or context in this segment:

- **Regulatory Modifications** – Consistent design results in less variation in driver behaviour which makes the expectations of all users more homogenous. Less variation in behaviour makes for greater predictability and makes the environment safer for all users. Posted Speed Limit is already the maximum permitted in Wellington County, with speeds measured higher than that. Not a viable option.
- **Geometric Modifications** – Controlling the speed of vehicles can be achieved by aligning the design of the road with the desired posted speed. This can be an expensive undertaking. The corridor is a former provincial highway and built to a high design standard that supports higher speeds, and the surrounding land uses remain largely rural. Not seen as a viable option.
- **Education / Enforcement** – Consistent enforcement/police is a cost and resource issue. Periodic enforcement could be provided to those vehicles travelling much faster than the posted speed limit.
- **Do Nothing** – Largely recommended given the context of the corridor.

- Retain posted speed limit at **80 km/h**.

Figure 6 and **Figure 7** show the existing and recommended posted speed limit along the corridor, respectively.

- In the short term, liaise with the County of Wellington OPP Detachment to provide periodic **enforcement** along this portion of the Wellington Road 86 corridor as 85th and 95th percentiles are measured well above the 80 km/h speed limits on the corridor.

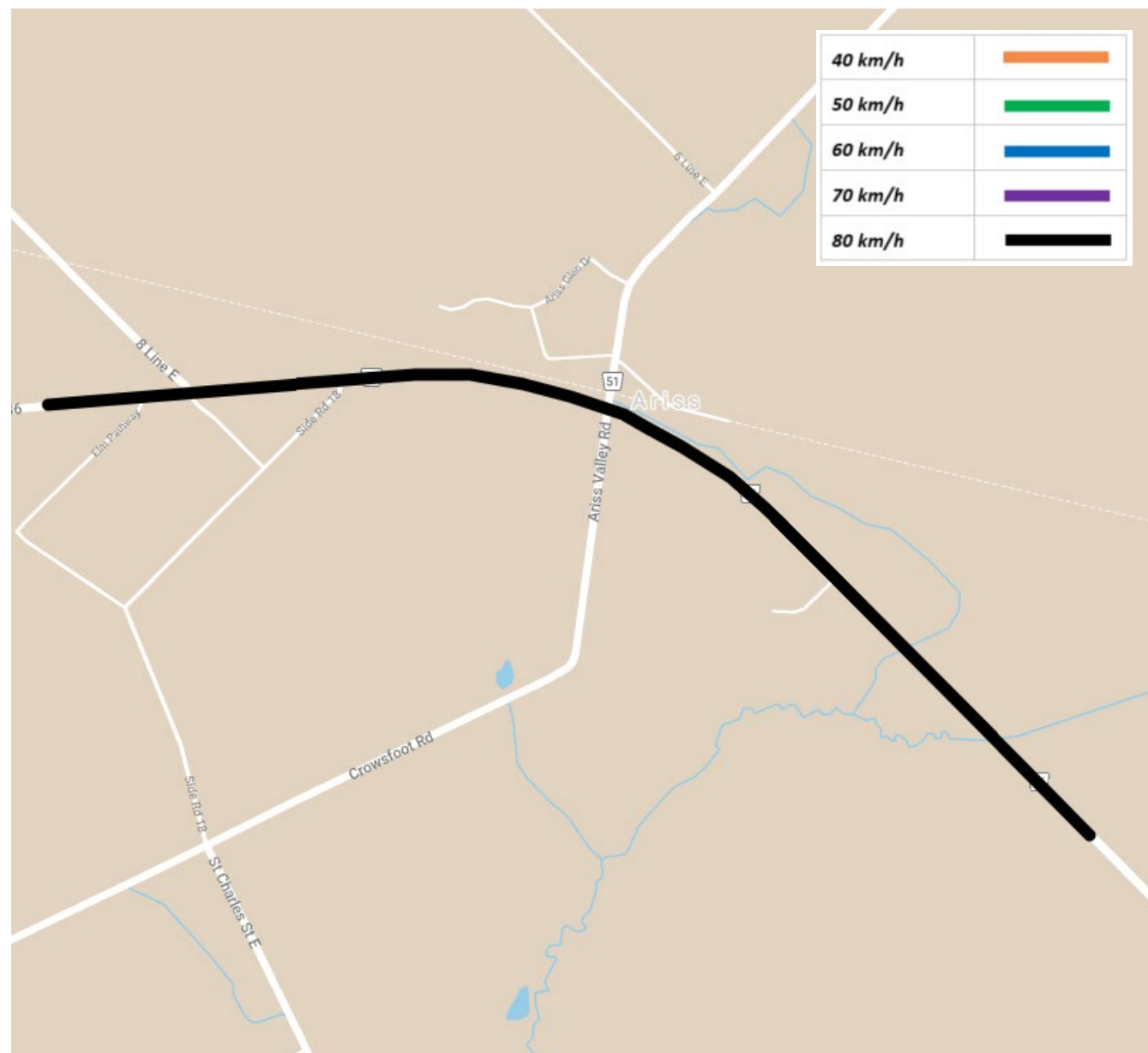


Figure 6: Existing Posted Speed Limits, Wellington Road 86, Ariss

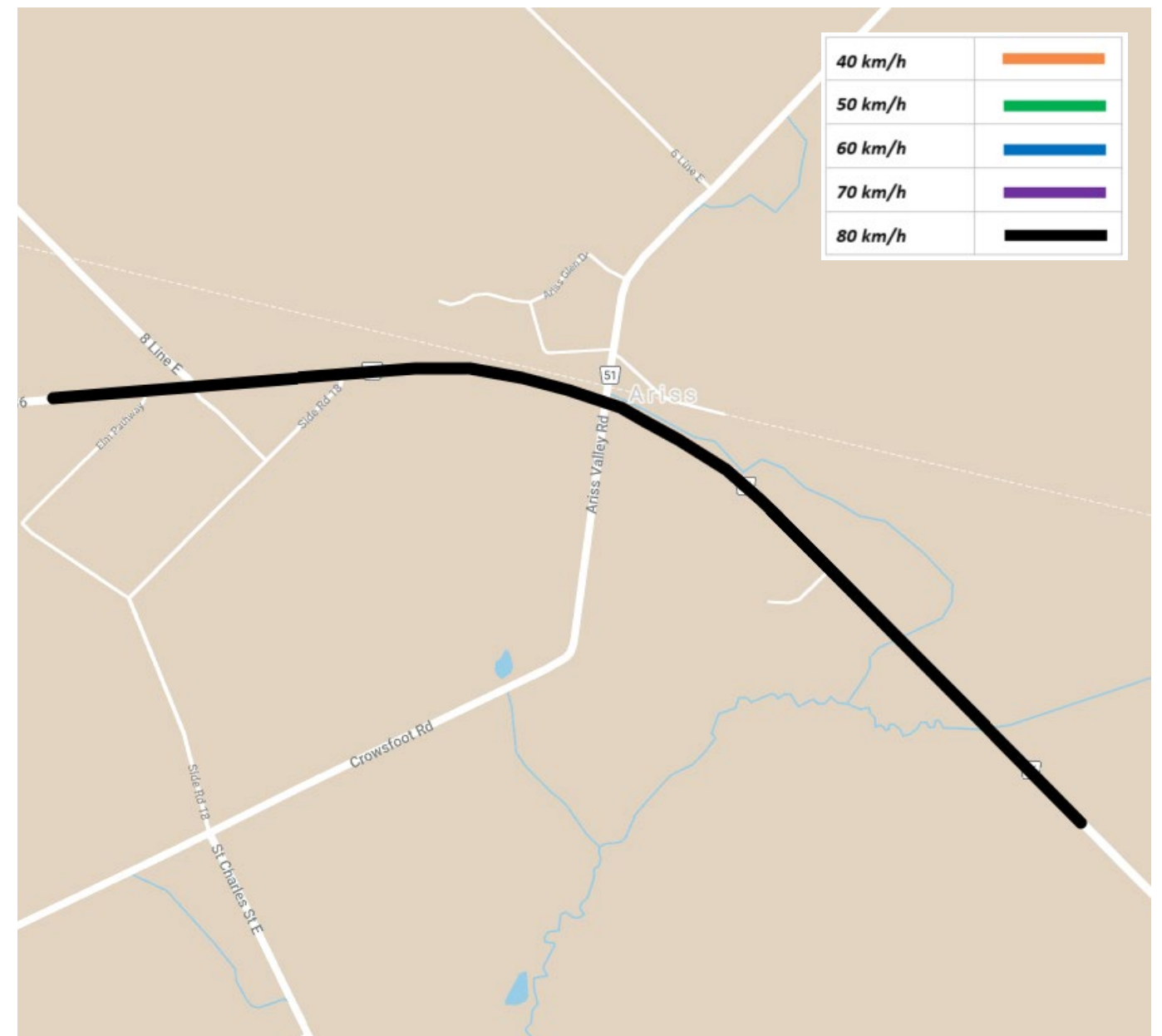


Figure 7: Recommended Posted Speed Limits, Wellington Road 86, Ariss

Wellington Road 19 from Wellington Road 16 to 8746 Wellington Road 19

Corridor Context

- The Wellington Road 19 corridor is mostly rural with paved shoulders, with a short section with rollover curb and gutter on the south side of the corridor
- The majority of the corridor is posted 80 km/h, with a short section posted at 50 km/h approaching and through Belwood
- On either side of Belwood, some vertical curves may negatively impact sightlines at the Wellington Road 19 and Smith Street intersection as well as at the Wellington Road 19 and Wellington Road 26/7th Line intersection
- The vast majority of development in Belwood is found to the south of the corridor, with only a handful of single-family homes located on the north side of the corridor
- Sizeable campgrounds (Highland Pines Campground) and retirement community located around the intersection with 5th Line, with primary access points to Wellington Road 19
- Left turn and/or right-turn lanes are present at 5th Line, the Highland Pines Campground accesses, and the Pine Meadows Retirement Community.

Public Feedback

Through the Social Pinpoint exercise, we received the following feedback from the public:

- *“Tractor trailer should not jackknife at the top of the hill. It’s supposed to be 50km/h coming into Belwood. We can’t stop who uses the road but maybe there can be more enforcement on the delinquent motorists.”*
- *“Need more visual radar enforcement. Speeding issue has been here for a long time and something needs to be done.”*
- *“Speeding up and down hill. Many using engine break even though posted not too. Many kids in the area.”*

3.4.3

Traffic Data

The following traffic data was collected and used as part of the speed management analysis:

Wellington Road 19 between 5th Line and 6th Line

- Data Collection Dates: 2019-06-04
- Collection By: Wellington County
- 2,792 vehicles recorded
- Posted Speed Limit = 80 km/h
- Average Speed = 85 km/h
- 85th Percentile = 97 km/h
- 95th Percentile = 102 km/h
- Five collisions in last 10 years, four collisions in last three years.

Wellington Road 19 just east of Wellington Road 26

- Data Collection Dates: 2020-11-04 to 2020-12-09
- Collection By: OPP
- 13,572 vehicles recorded over five days (average 2,714 vehicles per day)
- Posted Speed Limit = 50 km/h
- Average Speed = 60 km/h
- 85th Percentile = 69 km/h
- 95th Percentile = 77 km/h
- Five collisions in last 10 years, four collisions in last three years.

3.4.4

Problem Statement

- Both the average and 85th percentile speeds are measured to be higher than the posted speed both within and outside of Belwood
- There may be some demand for active transportation (walking, cycling) along the Wellington Road 19 corridor due to the presence of the retirement community and campgrounds near 5th Line.

3.4.5

Posted Speed Limit Review

The TAC Canadian Guidelines for Establishing Posted Speed Limits was used to conduct a speed management review on each corridor segment. The following were the results.

Wellington Road 19 from Wellington Road 16 to Smith Street in Belwood:

- Consider as a Major Rural Arterial Road with one lane per direction
 - Horizontal Geometry = Medium Risk
 - Vertical Geometry = Medium Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Lower Risk
 - Pedestrian Exposure = Lower Risk
 - Cyclist Exposure = Lower Risk
 - Pavement Surface = Lower Risk
 - Zero signalized Intersections
 - Eight side-street STOP controlled intersections
 - 10 driveway accesses
 - On-Street Parking = Lower Risk.

Current Posted Speed Limit = 50 km/h / 80 km/h

TAC Recommended Posted Speed Limit = 80 km/h

Wellington Road 19 from Smith Street to Wellington Road 26:

- Consider as a Major Urban Arterial Road with one lane per direction
 - Horizontal Geometry = Lower Risk
 - Vertical Geometry = Medium Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Lower Risk
 - Pedestrian Exposure = Medium Risk
 - Cyclist Exposure = Higher Risk
 - Pavement Surface = Lower Risk
 - Zero signalized Intersections
 - Four side-street STOP controlled intersections
 - 10 driveway accesses
 - On-Street Parking = Medium Risk.

Current Posted Speed Limit = 50 km/h

TAC Recommended Posted Speed Limit = 60 km/h

3.4.6 Potential Mitigation

Described options and their specific relevance or context in this segment:

- **Regulatory Modifications** – Implementing segment-appropriate speed limit changes align the driver behaviour with the design of the road. Consistent design results in less variation in driver behaviour which makes the expectations of all users more homogenous. Less variation in behaviour makes for greater predictability and makes the environment safer for all users. Viable option.
- **Geometric Modifications** – Controlling the speed of vehicles can be achieved by aligning the design of the road with the desired posted speed. This can be an expensive undertaking over

long corridors with varied environments. Viable but expensive option with a specific focus through Belwood.

- **Education / Enforcement** – Consistent enforcement/police presence over this length of roadway is a cost and resource issue. Over long sections of road, intense enforcement is typically not viable, infrequent enforcement not effective, although it could be considered through Belwood.
- **Do Nothing** – Do nothing is not an option for some of the segments, while it can be a consideration for some of the rural segments.

3.4.7

Recommendations

The posted speed limit recommendations take into account the TAC recommended posted speed limit but do consider other factors such as changes to the surrounding land uses and changes to the road cross-section. As a result, the actual posted speed limit recommendation may not fully align with the TAC recommended speed limit. The following recommendations with regard to the posted speed limits for this corridor:

- Retain the majority of the posted speed limit to the east and west of Belwood at **80 km/h**
- Increase the posted speed limit through Belwood **from 50 km/h to 60 km/h**
- On the west side of Belwood, **modify the speed transition points** between the existing 80 km/h zone and the recommended 60 km/h to be approximately 100 metres west of the Wellington Road 19 and Smith Street intersection. This transition would be shifted approximately 125 metres further east than what's currently present, subject to confirmation of available sightlines and minimum safe stopping distance to the west of Smith Street
- On the east side of Belwood, **modify the speed transition points** between the existing 80 km/h zone and the recommended 60 km/h to be 125 metres east of the Wellington Road 19 and Wellington Road 26 intersection. This transition would be approximately 200 metres further west than what's currently present, subject to confirmation of available sightlines and minimum safe stopping distance to the east of Wellington Road 26.

Figure 8 and **Figure 9** shows the recommended posted speed limits along the Wellington Road 19 corridor, respectively.

Regardless of whether the recommendations related to the posted speed limit are endorsed, the speed management action plan along the corridor should also include the following improvements:

- In the short-term, introduce **speed reader (radar display) signage** facing both traffic entering Belwood from both directions. These signs could be roughly 50 metres beyond the start of the recommended 60 km/h speed zone
- In the long-term, consider the need for a **paved multi-use pathway** on the south side of the Wellington Road 19 corridor between Meadow Lane and the driveway accesses to the Highland Pines Campgrounds
- In the long-term, consider if there's a need for a **pedestrian crossing** across Wellington Road 19 near the driveway accesses to the Highland Pines Campgrounds

- Based on the current and recommended posted speed limit (80 km/h), a pedestrian crossover (PXO) would not be able to be introduced, and a pedestrian traffic signal would need to be the type of appropriate traffic control.
- In the long-term, consider **urbanizing** the Wellington Road 19 corridor through Belwood within the full limits of the recommended 60 km/h speed limit zone. This could include barrier curb and gutter on both sides of the roadway, an on-street parking lane on the north side of the corridor, as well as a concrete sidewalk or multi-use pathway on the south side of the corridor.

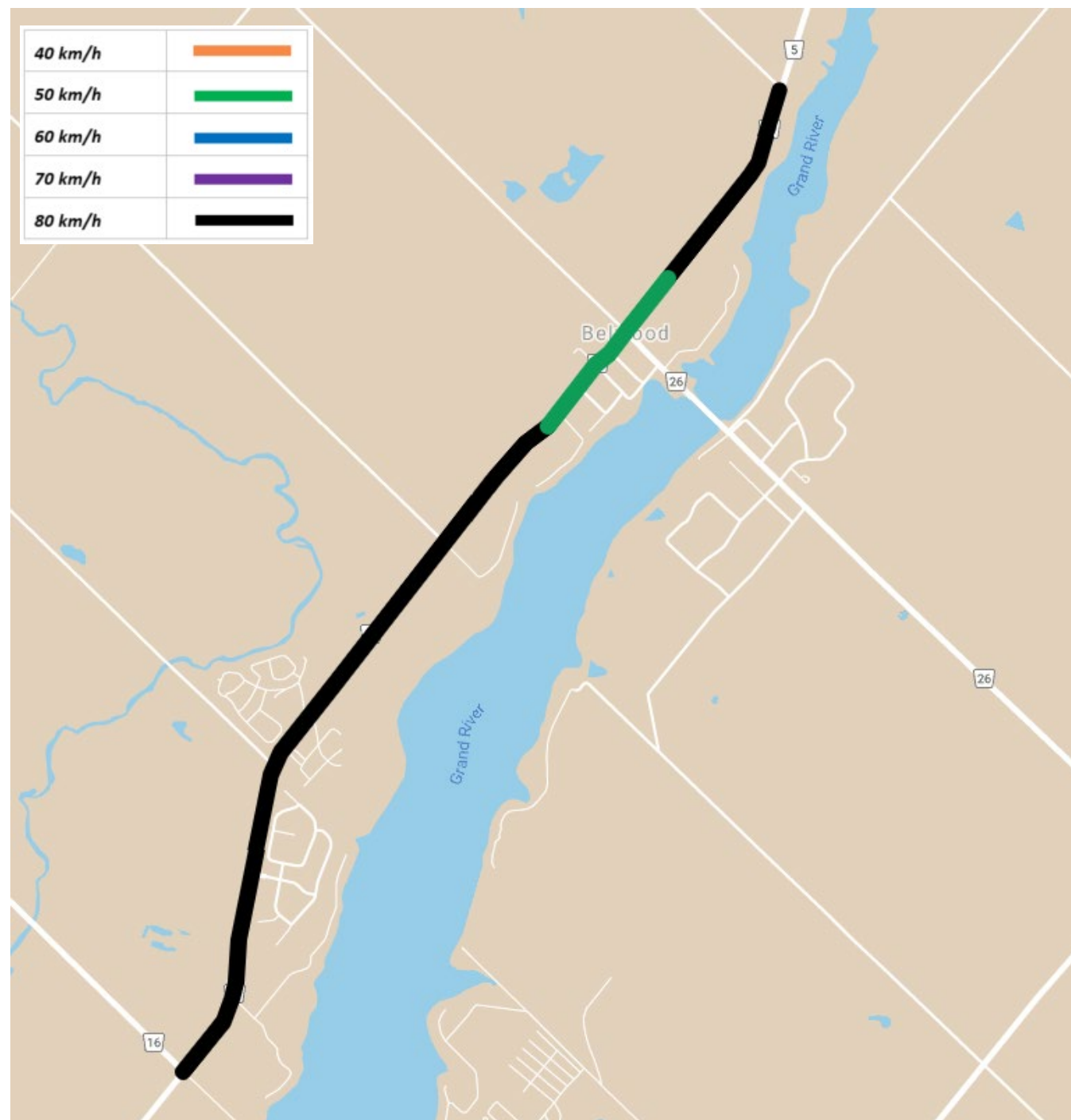


Figure 8: Existing Posted Speed Limits, Wellington Road 19, Belwood

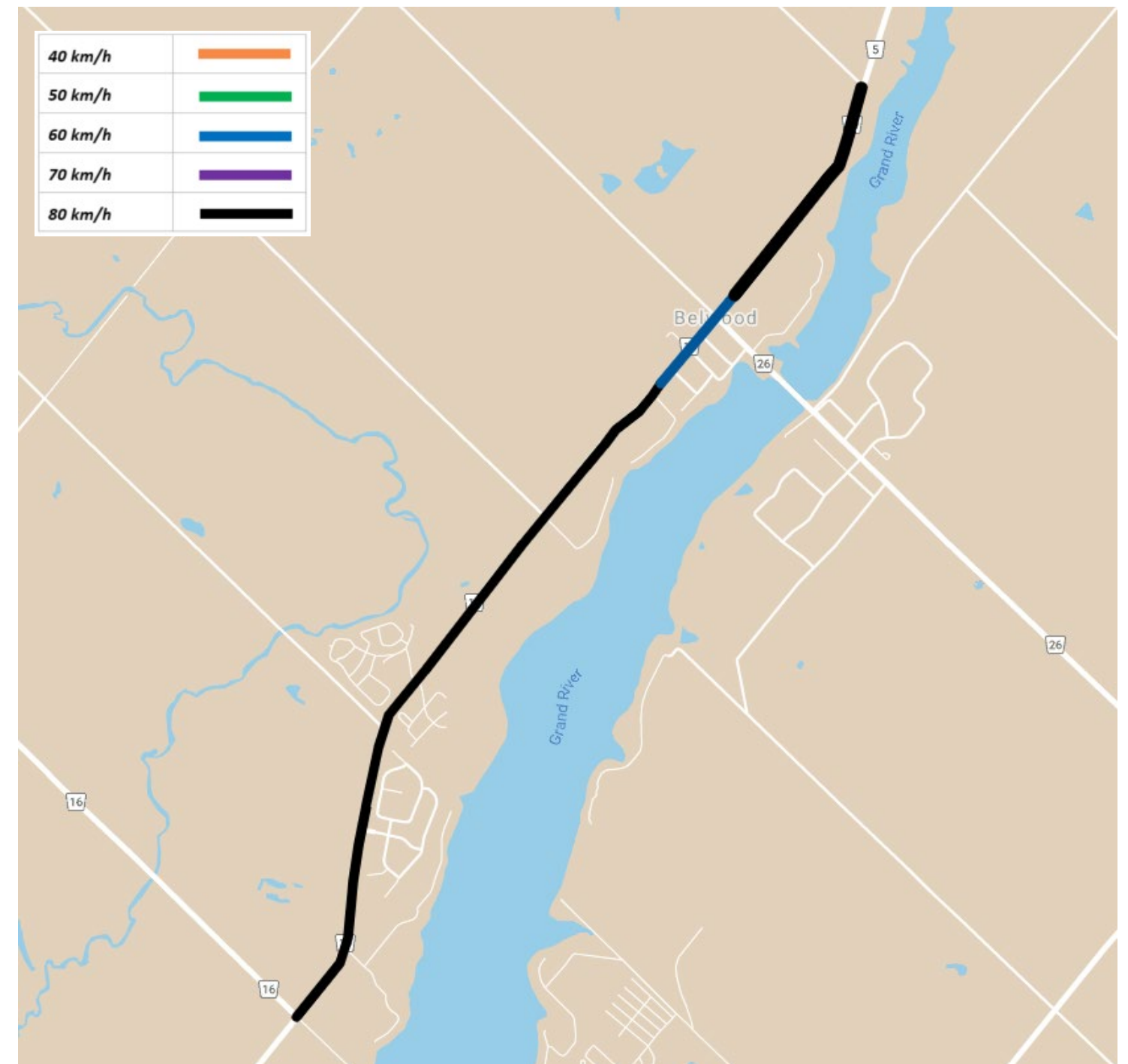


Figure 9: Recommended Posted Speed Limits, Wellington Road 19, Belwood

3.5 Wellington Road 26 (North/South Broadway Street) from Wellington Road 19 to Side Road 9

3.5.1 Corridor Context

- The northern section (from 10th Street to Wellington Road 19) is urban through Belwood with rollover curb and gutter and/or paved shoulders are present. The remaining southern section is more rural with limited development on either side of the corridor
- The southern section (from 10th Street south and across the Grand River to Side Road 9) features some single-family homes on both sides of the corridor, but travelling along the corridor is very rural as the vast majority of these properties do not front onto or have direct access to Wellington Road 26
- The corridor crosses the Grand River on a relatively narrow two-lane bridge
- The posted speed limit is 50 km/h through the entirety of the corridor from Wellington Road 19 to Side Road 9
- A speed reader (radar display) board is found facing northbound traffic just south of Allan Drive (south of the Grand River at the top of the vertical curve).

3.5.2 Public Feedback

Through the Social Pinpoint exercise, we received the following feedback from the public:

- *"Vehicles driving too fast coming over a hill. Seen too many vehicles pulling out from George St onto Wellington Rd 26, before they know a vehicle is on their back due to a site issue."*
- *"Narrow bridge full of people in the summer with traffic moving fast."*
- *"The increase in traffic has grown exponentially, especially as more housing developments are completed in Fergus. Many times our lives are threatened when we turn out of our driveway as the speed limit is often surpassed by 40-50 km/h."*

3.5.3 Traffic Data

The following traffic data was collected and used as part of the speed management analysis:

Wellington Road 26 between Green Valley Road and Allan Drive

- Data Collection Dates: 2019-06-04
- Collected By: Wellington County
- 2,302 vehicles
- Posted Speed Limit = 50 km/h

- Average Speed = 75 km/h
- 85th Percentile = 88 km/h
- 95th Percentile = 95 km/h.

Wellington Road 26 at Side Road 10 (immediately south of the Grand River Bridge)

- Data Collection Dates: 2020-11-04 to 2020-11-09
- Collected By: OPP
- 8,013 vehicles recorded over five days (average 1,603 vehicles per day)
- Posted Speed Limit = 50 km/h
- Average Speed = 60 km/h
- 85th Percentile = 71 km/h
- 95th Percentile = 77 km/h
- Six collisions in the last 10 years, one collision in the last three years.

3.5.4 Problem Statements

- High speeds measured well above the posted speed limits
- Relatively steep downgrades approaching the Grand River from both sides
- Posted speed limit change occurs in the vicinity of Side Road 9. However, the road cross-section and adjacent environment remain the same
- Limited urban context along the cross-section, such as curbs, sidewalks, etc.

3.5.5 Posted Speed Limit Review

The TAC Canadian Guidelines for Establishing Posted Speed Limits was used to conduct a speed management review on each corridor segment. The following were the results.

Wellington Road 26 from Wellington Road 19 south to Side Road 9

- Consider as a Major Urban Arterial Road with one lane per direction
 - Horizontal Geometry = Lower Risk
 - Vertical Geometry = Higher Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Medium Risk
 - Pedestrian Exposure = Higher Risk
 - Cyclist Exposure = Higher Risk
 - Pavement Surface = Lower Risk
 - Zero signalized Intersections
 - One STOP controlled intersection
 - Four side-street STOP controlled intersections
 - 14 driveway accesses

- On-Street Parking = Lower Risk.

Current Posted Speed Limit = 50 km/h

TAC Recommended Posted Speed Limit = 60 km/h

3.5.6 Potential Mitigation

Described options and their specific relevance or context in this segment:

- **Regulatory Modifications** – Implementing segment-appropriate speed limit changes align the driver behaviour with the design of the road. Consistent design results in less variation in driver behaviour which makes the expectations of all users more homogenous. Less variation in behaviour makes for greater predictability and makes the environment safer for all users. Viable option.
- **Geometric Modifications** – Controlling the speed of vehicles can be achieved by aligning the design of the road with the desired posted speed. This can be an expensive undertaking over long corridors with varied environments. Viable but expensive option with a specific focus through the urban areas of Belwood.
- **Education / Enforcement** – Consistent enforcement/police presence over this length of roadway is a cost and resource issue. Over long sections of road, intense enforcement is typically not viable, infrequent enforcement not effective, although it could be considered through Belwood.
- **Do Nothing** – Doing nothing is not an option for some of the more urban segments, while it can be a consideration for some of the more rural segments.

3.5.7 Recommendations

The posted speed limit recommendations take into account the TAC recommended posted speed limit but do consider other factors such as changes to the surrounding land uses and changes to the road cross-section. As a result, the actual posted speed limit recommendation may not fully align with the TAC recommended speed limit. The following recommendations with regard to the posted speed limits for this corridor:

- From Side Road 9 north to Side Road 10, increase the posted speed limit from **50 km/h to 60 km/h**
- From Side Road 10 north to Wellington Road 19 (including across the Grand River), retain the posted speed limit of **50 km/h**.

Figure 10 and **Figure 11** shows the recommended posted speed limits along Wellington Road 26 corridor south of Wellington Road 19, respectively.

Regardless of whether the recommendations related to the posted speed limit are endorsed, the speed management action plan along the corridor should also include the following improvements:

- In the short term, add a second **speed reader (radar display)** board on Wellington Road 26 corridor. This would be facing northbound traffic and should be located between the Grand River and George Street
- In the longer term, consider **urbanizing** the corridor's cross-section from Wellington Road 19 south to Side Road 9. This would include barrier curb and gutter on both sides of the road, a sidewalk or multi-use pathway on one side of the street and street lighting.



Figure 10: Existing Posted Speed Limits, Wellington Road 26, Belwood

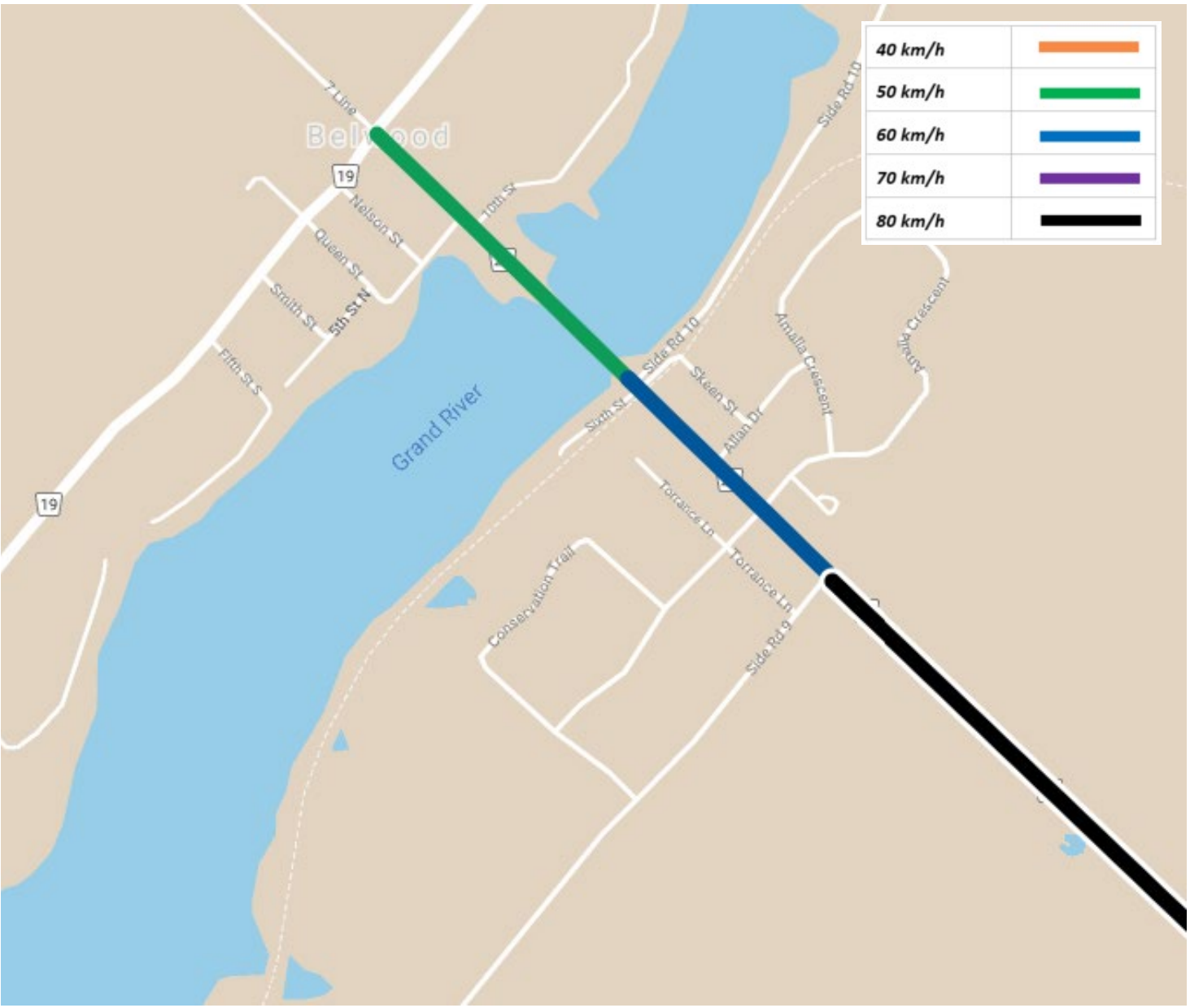


Figure 11: Recommended Posted Speed Limits, Wellington Road 26, Belwood

3.6

Wellington Road 50 from Highway 7 (Main Street South) to Wellington Road 24 (Trafalgar Road)

3.6.1

Corridor Context

- The westerly section (from Highway 7 to the railway) is urban and was recently reconstructed to feature a relatively tight cross-section with barrier curb and gutter, on-street parking and a sidewalk
- The remaining easterly section (east of the railway to Wellington Road 24) is rural with narrow gravel shoulders
- Speed display (radar reader) sign is present facing westbound traffic entering Rockwood
- Two relatively sharp horizontal curves just east of the railway crossing
- The posted speed limit is 50 km/h between Highway 7 and approximately 300 metres east of the railway. From here to the east the posted speed limit is 80 km/h except for between 3rd Line and 5th Line where it reduces to 70 km/h
- Largely straight alignment with some changes to vertical alignment due to topography.

3.6.2

Public Feedback

Through the Social Pinpoint exercise, we received the following feedback from the public:

- *“Residential area therefore speed should be reduced to 60km/hr for safety of pedestrians, cyclists and children playing. The 80km/hr zone is in close proximity to the intersection and has contributed to several motor vehicle accidents.”*
- *“Inconsistent speed limit. Make it 70 km/h all along.”*
- *“Excess noise caused by large commercial vehicles accelerating and decelerating with engine brakes.”*
- *“Concerning speed of vehicles on segment of Wellington Road 50 between Salmon and Sixth Line.”*

3.6.3

Traffic Data

The following traffic data was collected and used as part of the speed management analysis:

Wellington Road 50 in Rockwood around #270 Wellington Road 50

- Data Collection Dates: 2020-11-25 to 2020-11-27
- Collected By: OPP
- 5,773 vehicles recorded over three days (average 1,924 vehicles per day)

- Posted Speed Limit = 50 km/h
- Average Speed = 48 km/h
- 85th Percentile = 52 km/h
- 95th Percentile = n/a
- Two collisions in the last 10 years, one collision in the last three years.

3.6.4 Problem Statements

- Where the posted speed limit presently changes from 80 km/h to 50 km/h to the east of Rockwood, the cross-section and surrounding land use remain the same
- On Wellington Road 50 between 3rd Line and 5th Line, the posted speed limit is lower (70 km/h), while the surrounding blocks in terms of context, cross-section and surrounding land uses are nearly identical and have a posted speed limit of 80 km/h.

3.6.5 Posted Speed Limit Review

The TAC Canadian Guidelines for Establishing Posted Speed Limits was used to conduct a speed management review on each corridor segment. The following were the results.

Wellington Road 50 from Highway 7 to Rail line (400 metres east of Sammon Drive)

- Consider as a Major Urban Arterial Road with one lane per direction
 - Horizontal Geometry = Medium Risk
 - Vertical Geometry = Lower Risk
 - Average Lane Width = Higher Risk
 - Roadside Hazards = Lower Risk
 - Pedestrian Exposure = Lower Risk
 - Cyclist Exposure = Higher Risk
 - Pavement Surface = Lower Risk
 - One STOP controlled intersection
 - One at-grade rail crossing
 - One side-street STOP controlled intersections
 - 60 driveway accesses
 - On-Street Parking = Higher Risk.

Current Posted Speed Limit = 50 km/h

TAC Recommended Posted Speed Limit = 60 km/h

Wellington Road 50 from the railway (400 metres east of Sammon Drive) to Wellington Road 24

- Consider as a Major Rural Arterial Road with one lane per direction
 - Horizontal Geometry = Lower Risk
 - Vertical Geometry = Medium Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Medium Risk
 - Pedestrian Exposure = Lower Risk

- Cyclist Exposure = Lower Risk
- Pavement Surface = Lower Risk
- Two STOP controlled intersections
- One at-grade railroad crossing
- Seven side-street STOP controlled intersections
- 82 driveway accesses
- On-Street Parking = Lower Risk.

Current Posted Speed Limit = 50 km/h / 70 km/h / 80 km/h

TAC Recommended Posted Speed Limit = 80 km/h

3.6.6 Potential Mitigation

Described options and their specific relevance or context in this segment:

- **Regulatory Modifications** – implementing segment-appropriate speed limit changes align the driver behaviour with the design of the road. Consistent design results in less variation in driver behaviour which makes the expectations of all users more homogenous. Less variation in behaviour makes for greater predictability and makes the environment safer for all users. Viable option.
- **Geometric Modifications** – Controlling the speed of vehicles can be achieved by aligning the design of the road with the desired posted speed. This can be an expensive undertaking over long corridors with varied environments. Not an option as Wellington Road 50 through Rockwood has already been urbanized in recent years.
- **Education / Enforcement** – consistent enforcement/police presence over this length of roadway is a cost and resource issue. Within the downtown area, enforcement would be a disruption to the operation of the road and the village environment. Over long sections of road, intense enforcement is typically not viable, infrequent enforcement not effective.
- **Do Nothing** – Do nothing an option for a number of the road segments.

3.6.7 Recommendations

The posted speed limit recommendations take into account the TAC recommended posted speed limit but do consider other factors such as changes to the surrounding land uses and changes to the road cross-section. As a result, the actual posted speed limit recommendation may not fully align with the TAC recommended speed limit. The following recommendations with regard to the posted speed limits for this corridor:

- Retain the posted speed limit along Wellington Road 50 from Highway 7 to slightly east of the at-grade railway at 50 km/h
- Modify the posted speed limit along Wellington Road 50 from slightly east of the at-grade railway to just east of the two horizontal curves to **70 km/h**

- A short section found slightly further east of the at-grade railway would see the posted speed limit increase from **50 km/h to 70 km/h**
- The section through the two horizontal curves would see the posted speed limit reduced from **80 km/h to 70 km/h**.
- Retain or adjust the posted speed limit on the remainder of the Wellington Road 50 corridor at **80 km/h**
 - The section of Wellington Road 50 between 3rd Line and 5th Line would see its posted speed limit increased from **70 km/h to 80 km/h**.

Regardless of whether the recommendations related to the posted speed limit are endorsed, the speed management action plan along the corridor should also include the following improvements:

- Review the **advisory speed sign tabs** facing the two horizontal curves found east of the railway to determine if the current advisory speed of 50 km/h is appropriate.

Figure 12 and **Figure 13** shows the recommended posted speed limits along Wellington Road 50, respectively. The more easterly sections of Wellington Road 50 are not shown but are recommended to have a continuous 80 km/h posted speed limit.

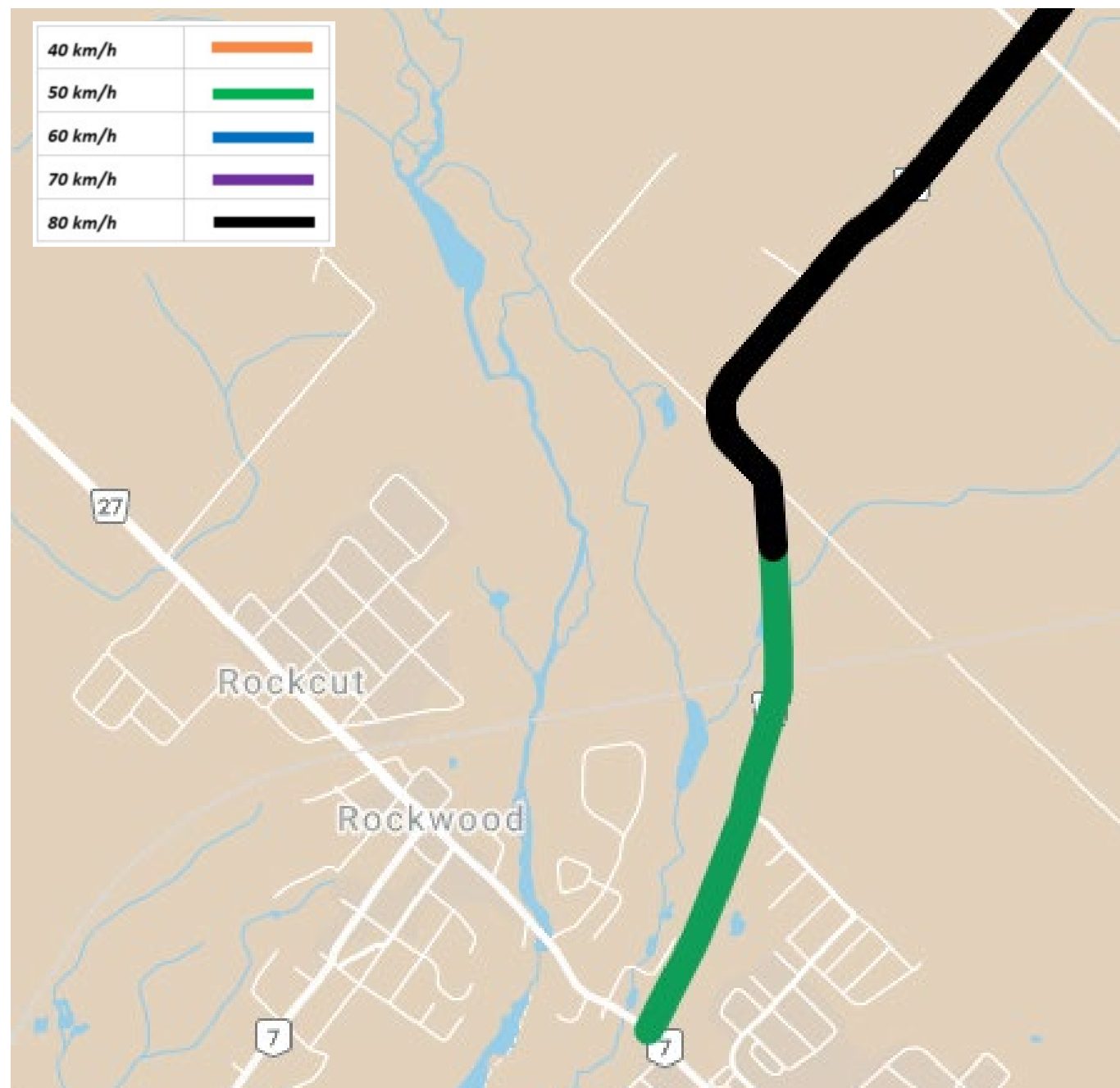


Figure 12: Existing Posted Speed Limits - Wellington Road 50, Rockwood

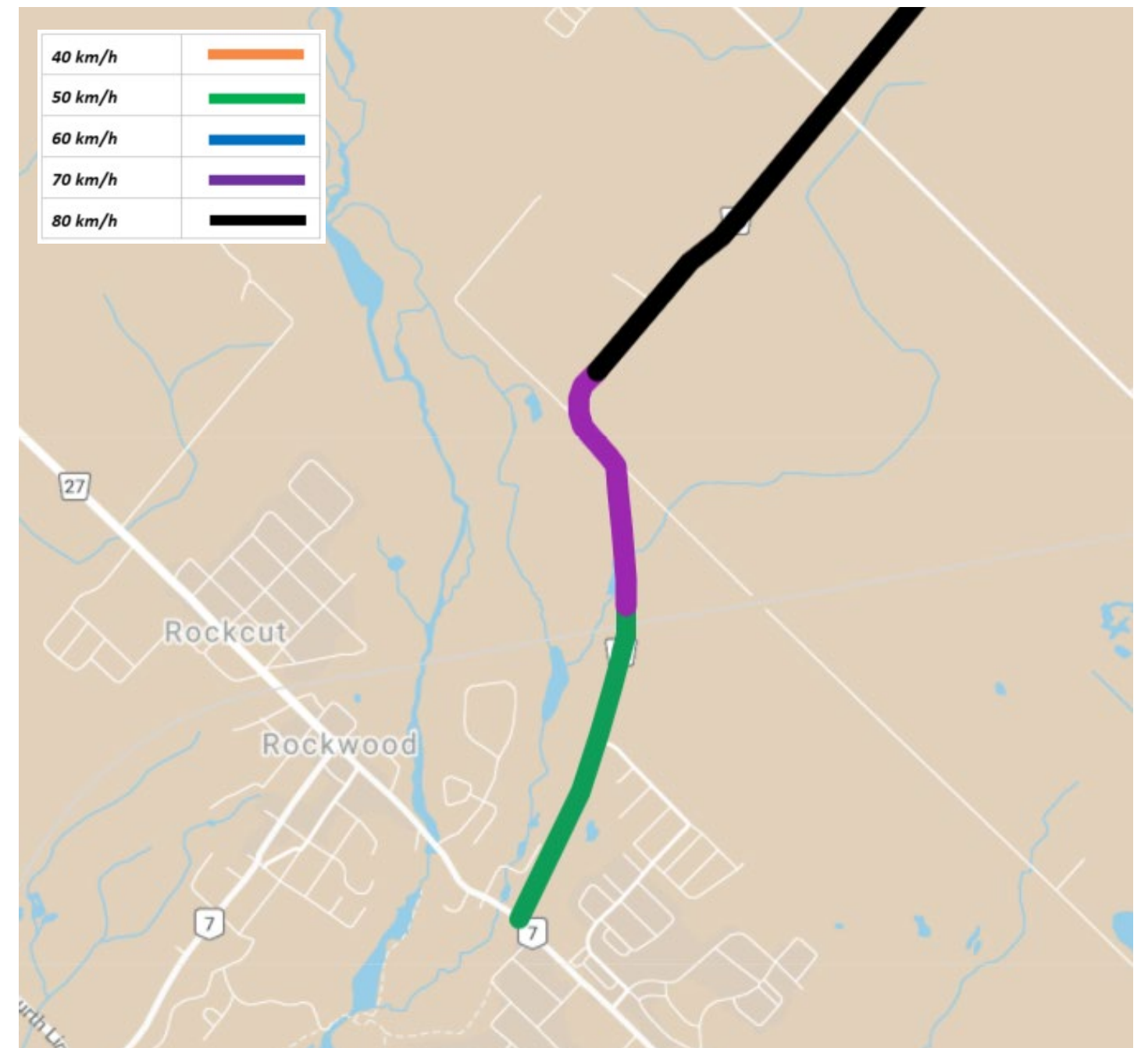


Figure 13: Recommended Posted Speed Limits - Wellington Road 50, Rockwood

3.7 Wellington Road 124 from City of Guelph boundary to Watson Road North

3.7.1 Corridor Context

- Right on the boundary with the City of Guelph
- Built to largely a rural cross-section with either paved or gravel shoulders
- Predominantly rural land-uses, with limited properties taking access to or fronting directly onto Wellington Road 124
- The posted speed limit is 50 km/h but increases to 80 km/h just east of Hillside Drive
- No 50 km/h speed limit signage facing eastbound traffic once exiting the City of Guelph.

3.7.2 Public Feedback

No public feedback was received through the Social Pinpoint exercise.

3.7.3 Traffic Data

The following traffic data was collected and used as part of the speed management analysis:

Wellington Road 124 between Watson Parkway and Hillside Drive

- Data Collection Dates: 2020-10-25 to 2020-10-28
- Collected By: OPP
- 15,455 vehicles recorded over three days (average 5,152 vehicles per day)
- Posted Speed Limit = 50 km/h
- Average Speed = 68 km/h
- 85th Percentile = 77 km/h
- 95th Percentile = 84 km/h
- 24 collisions in last 10 years, five in last three years.

3.7.4 Problem Statements

- Average and 85th Percentile speeds are measured well above the posted speed limit of 50 km/h
- Once within the City of Guelph boundaries, the surrounding context becomes urban (both cross-section and surrounding land use found on both sides of the corridor).

Wellington Road 124 from the City of Guelph boundary to Watson Road

- Consider as a Major Rural Arterial Road with one lane per direction
 - Horizontal Geometry = Lower Risk
 - Vertical Geometry = Lower Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Lower Risk
 - Pedestrian Exposure = Lower Risk
 - Cyclist Exposure = Lower Risk
 - Pavement Surface = Lower Risk
 - Four side-street STOP controlled intersection
 - Five driveway accesses
 - On-Street Parking = Not Available.

Current Posted Speed Limit = 50 km/h /80 km/h

TAC Recommended Posted Speed Limit = 80 km/h

Potential Mitigation

Described options and their specific relevance or context in this segment:

- **Regulatory Modifications** – Implementing segment-appropriate speed limit changes align the driver behaviour with the design of the road. Consistent design results in less variation in driver behaviour which makes the expectations of all users more homogenous. Less variation in behaviour makes for greater predictability and makes the environment safer for all users. Viable option.
- **Geometric Modifications** – Controlling the speed of vehicles can be achieved by aligning the design of the road with the desired posted speed. This can be an expensive undertaking over long corridors with varied environments. Viable but expensive option.
- **Education / Enforcement** – Consistent enforcement/police presence over this length of roadway a cost and resource issue. Over long sections of road, intense enforcement is typically not viable, infrequent enforcement not effective.
- **Do Nothing** – Doing nothing is not an option.

Recommendations

The posted speed limit recommendations take into account the TAC recommended posted speed limit but do consider other factors such as changes to the surrounding land uses and changes to the road cross-section. As a result, the actual posted speed limit recommendation may not fully align with the TAC recommended speed limit. The following recommendations with regard to the posted speed limits for this corridor:

- From the City of Guelph boundary to just northeast of Hillside Street (where the current 50 km/h / 80 km/h speed zone transition is), increase the posted speed limit from **50 km/h to 70 km/h**
 - It is noted that the length of this recommended posted speed limit zone is 400 metres, which is slightly lower than the recommended minimum length
 - As this posted speed limit would extend west to the City of Guelph boundary, there may need to coordinate some necessary signage changes with the City of Guelph.
- For points further to the northeast, retain the posted speed limit of **80 km/h**.

Figure 14 and **Figure 15** outlines the existing and recommended posted speed limits on Wellington Road 124 to the immediate east of the City of Guelph boundary, respectively. Within the City of Guelph, the posted speed limit is 50 km/h.

Regardless of whether the recommendations related to the posted speed limit are endorsed, the speed management action plan along the corridor should also include the following improvements:

- In the long term, consider **modifying the corridor's cross-section** within the recommended 70 km/h speed zone to introduce barrier curb and gutter on both sides of the corridor, street lighting, cycling infrastructure (cycle tracks, multi-use trail, etc.), and pedestrian infrastructure (sidewalks, multi-use pathway) on one or both sides of the corridor, tying into infrastructure that is found within the City of Guelph.
 - The posted speed limit on this portion of Wellington Road 124 should then also be re-evaluated.

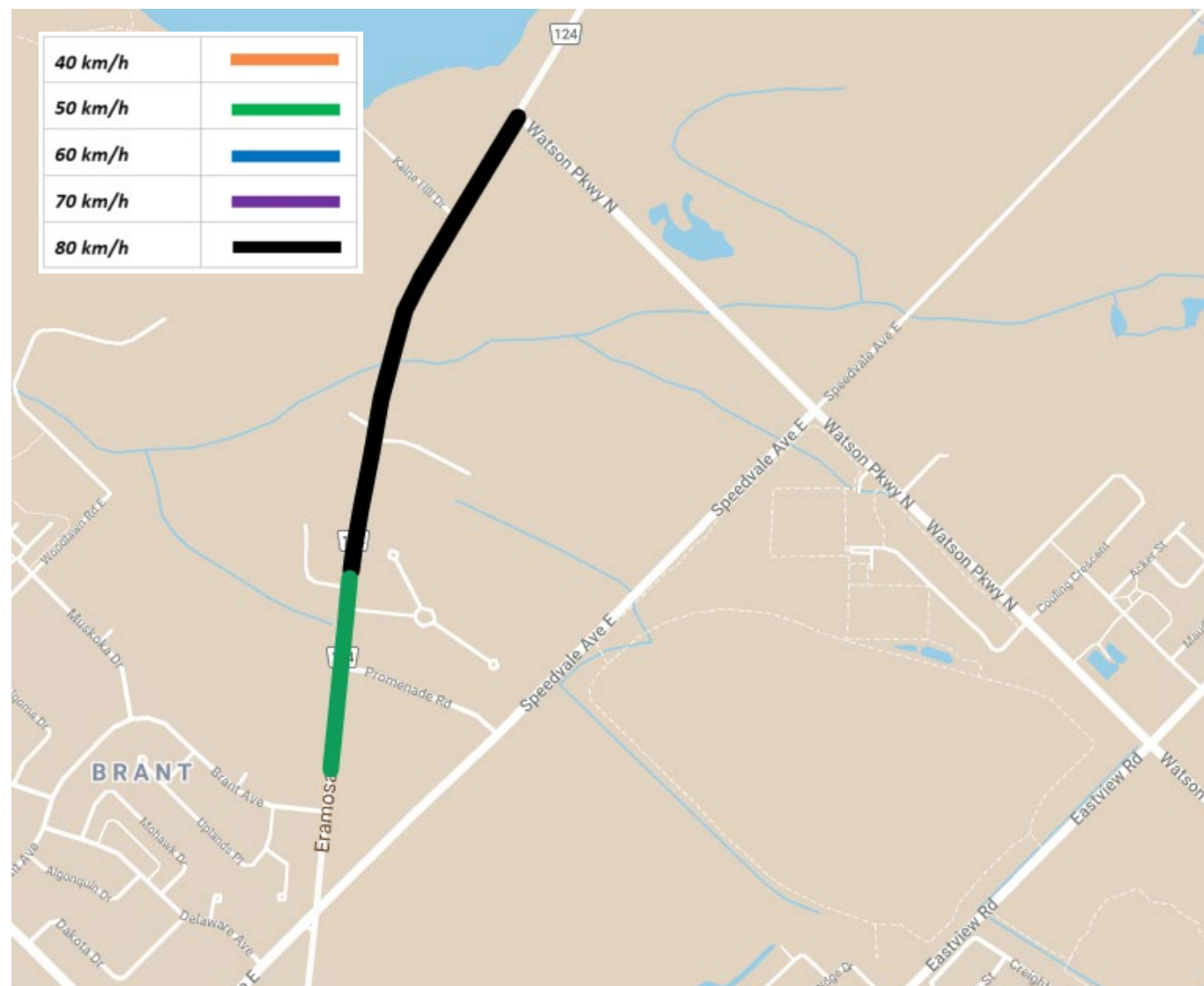


Figure 14: Existing Posted Speed Limits, Wellington Road 124, immediately east of Guelph

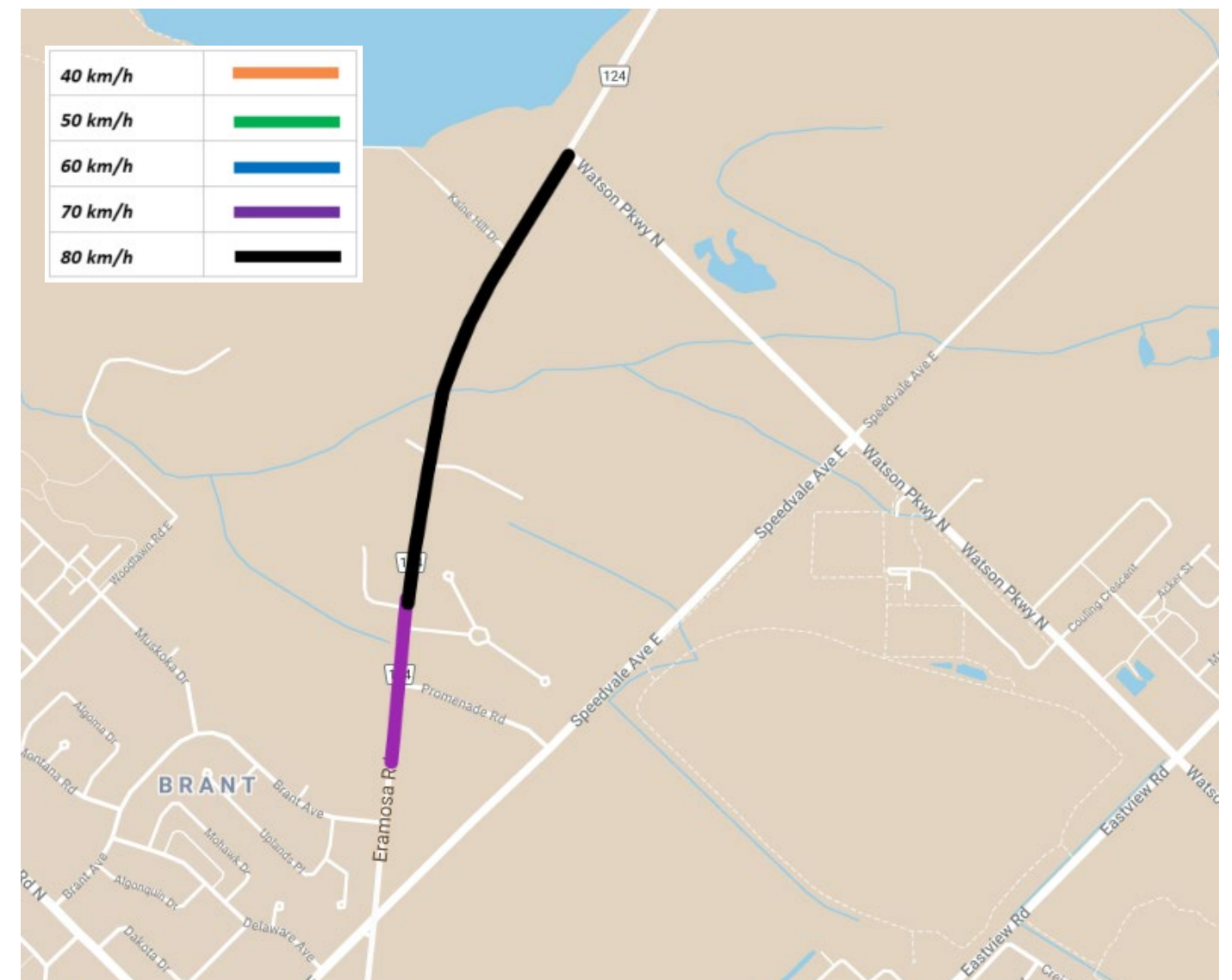


Figure 15: Recommended Posted Speed Limits, Wellington Road 124, immediately east of Guelph

3.8

Wellington Road 29 from Side Road 10 to 300 metres north of Wellington Road 124

3.8.1

Corridor Context

- Posted 80 km/h to the north and south, posted 60 km/h on both sides of Wellington Road 124 and through the horizontal curves south of the intersection
- Generally, rural cross-section (gravel shoulders, no sidewalks) and land-uses, with a small number of single-family homes found on either side of Wellington Road 124
- The horizontal curves to the south of Wellington Road 124 are signed with a 50 km/h advisory speed limit.

3.8.2

Public Feedback

Through the Social Pinpoint exercise, we received the following feedback from the public:

- *"This S-bend curve needs a flashing posted speed limit sign in both directions. People use this as a race track. Flashing posted speed signs are put up in the middle of nowhere so let's do something useful for a change."*
- *"This curve has seen many cars losing control and ending up in the ditch, breaking hydro poles, damaging fence and sadly a few fatalities. Speeding in this area is always the cause. We call it dead man's curve."*
- *"The light at corner of WR 124 and WR 29 was needed, but this puts bad judgment on drivers, to start speeding through to hit the green light. As I try to enter my driveway, I have to plan long before to let the drivers behind know I am turning, slow down!!! Extra flashing lights and lower speed from the lake to highway 24 would help."*

3.8.3

Traffic Data

The following traffic data was collected and used as part of the speed management analysis:

Wellington Road 29 at Wellington Road 124

- Data Collection Dates: 2020-11-02 to 2020-11-04
- Collected By: OPP
- 10,027 vehicles recorded over two days (average 5,013 vehicles per day)
- Posted Speed Limit = 60 km/h
- Average Speed = 68 km/h
- 85th Percentile = 77 km/h
- 95th Percentile = 84 km/h

- Two collisions in the last 10 years, one collision in the last three years.

3.8.4 Problem Statements

- Average and 85th percentile speeds are notably higher than the posted speed limit of 60 km/h
- A small number of residential properties along Wellington Road 29 both north and south of Wellington Road 124
- Relatively tight horizontal curves along Wellington Road 29 to the south of Wellington Road 124.

3.8.5 Posted Speed Limit Review

The TAC Canadian Guidelines for Establishing Posted Speed Limits was used to conduct a speed management review on each corridor segment. The following were the results.

Wellington Road 29 from Side Road 10 to 300 metres north of Wellington Road 124

- Consider as a Major Rural Arterial Road with one lane per direction:
 - Horizontal Geometry = Higher Risk
 - Vertical Geometry = Medium Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Medium Risk
 - Pedestrian Exposure = Lower Risk
 - Cyclist Exposure = Lower Risk
 - Pavement Surface = Lower Risk
 - One STOP controlled intersection
 - One signalized intersection
 - 10 driveway accesses
 - On-Street Parking = Lower Risk.

Current Posted Speed Limit = 80 km/h / 60 km/h / 80 km/h

TAC Recommended Posted Speed Limit = 70 km/h

Approaching and through Eramosa, the Wellington Road 124 corridor may also need to be independently assessed as adjustments to the posted speed limit and/or the road design on this corridor may also be technically necessary.

3.8.6 Potential Mitigation

Described options and their specific relevance or context in this segment:

- **Regulatory Modifications** – Implementing segment-appropriate speed limit changes align the driver behaviour with the design of the road. Consistent design results in less variation in driver behaviour which makes the expectations of all users more homogenous. Less variation in behaviour makes for greater predictability and makes the environment safer for all users. Viable option.

- **Geometric Modifications** – Controlling the speed of vehicles can be achieved by aligning the design of the road with the desired posted speed. This can be an expensive undertaking over long corridors with varied environments. Not an option.
- **Education / Enforcement** – Consistent enforcement/police presence is a cost and resource issue. Given the short nature of the corridor and the presence of some horizontal curves, enforcement is a viable option.
- **Do Nothing** – Do nothing may be an option.

3.8.7

Recommendations

The posted speed limit recommendations take into account the TAC recommended posted speed limit but do consider other factors such as changes to the surrounding land uses and changes to the road cross-section. As a result, the actual posted speed limit recommendation may not fully align with the TAC recommended speed limit. The following recommendations with regard to the posted speed limits for this corridor:

- Increase the posted speed limit from **60 km/h to 70 km/h** along the Wellington Road 29 corridor:
 - North of Wellington Road 124, the posted speed limit transition between the recommended 70 km/h speed zone and the current 80 km/h should be shifted further south so it occurs at the north property line of the last residential property
 - South of Wellington Road 124, the posted limit transition between the recommended 70 km/h speed zone and the current 80 km/h should be shifted further north so it occurs approximately 75 metres south of where the horizontal curve begins.

Figure 16 and **Figure 17** show the existing and recommended posted speed limits along Wellington Road 29 both north and south of Wellington Road 124 in Eramosa, respectively.

Regardless of whether the recommendations related to the posted speed limit are endorsed, the speed management action plan along the corridor should also include the following improvements:

- **Add speed display (radar reader) signage** facing traffic in both directions approaching the curve
- Review the **advisory speed sign tabs** facing the horizontal curves found south of Wellington Road 124 to determine if the current advisory speed of 50 km/h is appropriate.

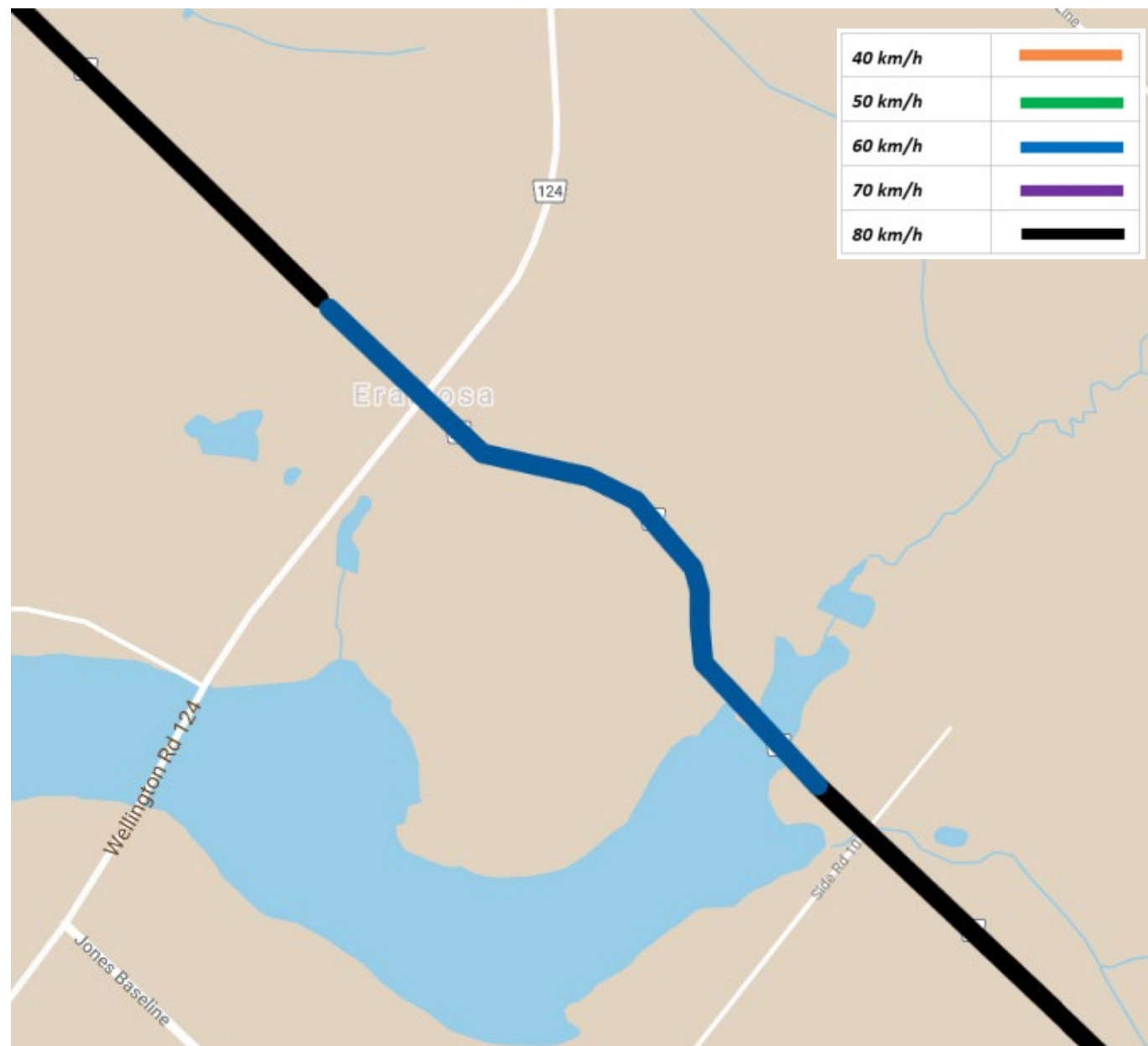


Figure 16: Existing Posted Speed Limits, Wellington Road 29, Eramosa

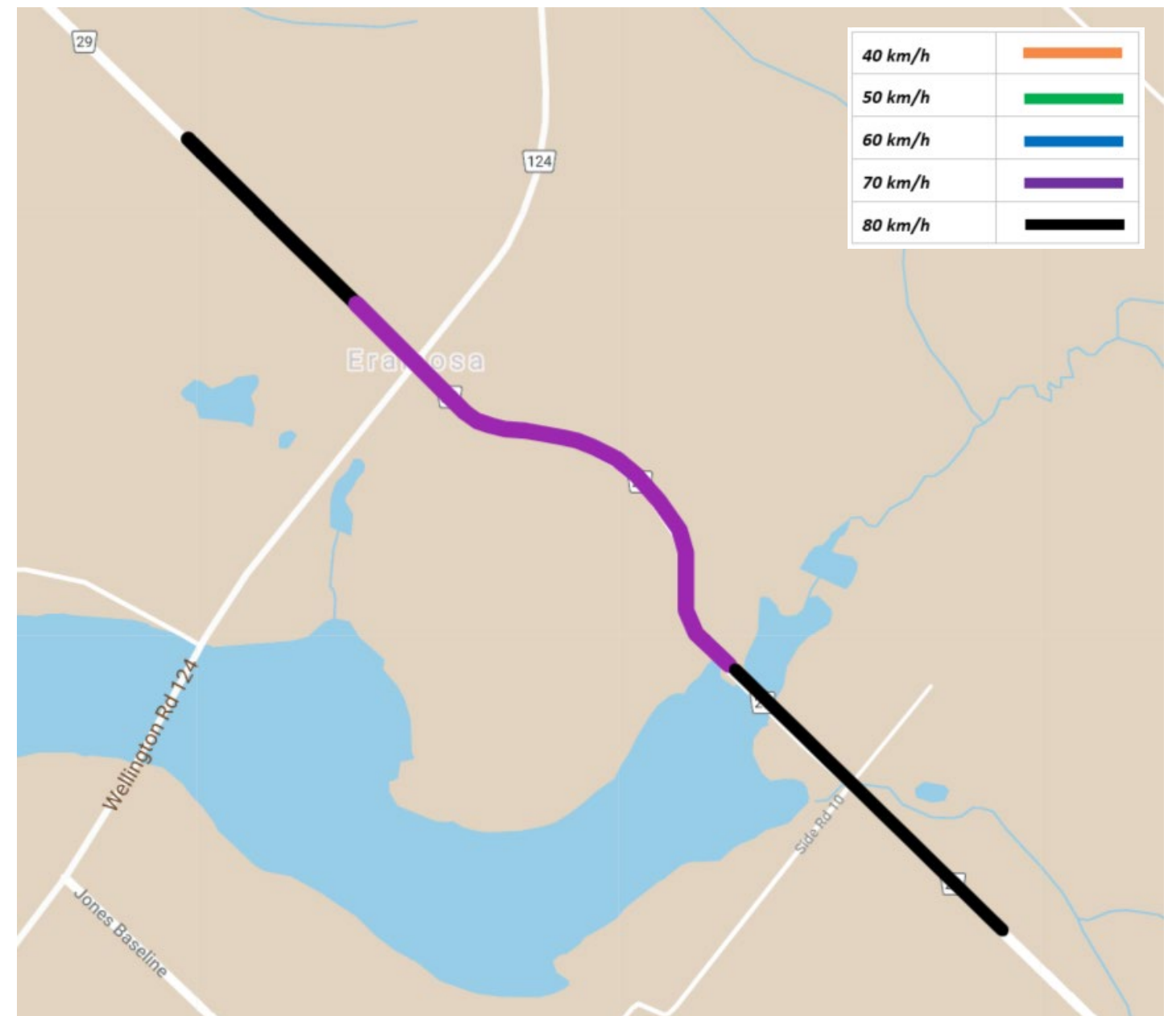


Figure 17: Recommended Posted Speed Limits, Wellington Road 29, Eramosa

3.9 Wellington Road 42 from Wellington Road 24 (Trafalgar Road) to Wellington Road 25 (Winston Churchill Boulevard)

3.9.1 Corridor Context

- Posted 50 km/h is present from Wellington Road 24 to a point found approximately 700 metres farther east (within Ballinfad), where it increases to 80 km/h for the rest of the corridor
- Predominantly urban land use within Ballinfad, but no urban cross-section, minus some narrow paved shoulders
- The remainder of the corridor is rural
- Straight horizontal alignment, but some vertical curves east of Ballinfad towards Winston Churchill Road.

3.9.2 Public Feedback

Through the Social Pinpoint exercise, we received the following feedback from the public:

- *“Turning on to Halton Erin Townline from Sandalwood Drive is risking your life, there is a slight hill that interferes with visibility, and that in addition to speeding is going to result in a death one day.”*
- *“We need help in keeping our roads safe. Speeding, texting and driving, distracted drivers. The list is ongoing.”*

3.9.3 Traffic Data

The following traffic data was collected and used as part of the speed management analysis:

Wellington Road 42 between 9th Line and 10th Line

- Data Collection Dates: 2019-05-31
- Collected By: Wellington County
- 989 vehicles recorded
- Posted Speed Limit = 80 km/h
- Average Speed = 84 km/h
- 85th Percentile = 98 km/h
- 95th Percentile = 107 km/h.

Wellington Road 42 at Wellington Road 24:

- Data Collection Dates: 2020-10-22 to 2020-10-24

- Collected By: OPP
- 5,773 vehicles recorded over three days (average 1,924 vehicles per day)
- Posted Speed Limit = 50 km/h
- Average Speed = 68 km/h
- 85th Percentile = 75 km/h
- 95th Percentile = n/a
- Four collisions in the last 10 years, one collision in the last three years.

3.9.4 Problem Statements

- At both locations where speed and volume data were collected, the average and 85th percentile speeds are measured to be much higher than the posted speed limit
- Within Ballinfad, the Wellington Road 42 corridor is constructed to a rural cross-section, even though there are urban land uses (single-family residential homes) on either side of the corridor.

3.9.5 Posted Speed Limit Review

The TAC Canadian Guidelines for Establishing Posted Speed Limits was used to conduct a speed management review on each corridor segment. The following were the results.

Wellington Road 42 from Wellington Road 24 (Trafalgar Road) to Shorthill Road (east access)

- Consider as a Major Urban Arterial Road with one lane per direction
 - Horizontal Geometry = Lower Risk
 - Vertical Geometry = Lower Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Medium Risk
 - Pedestrian Exposure = Higher Risk
 - Cyclist Exposure = Medium Risk
 - Pavement Surface = Lower Risk
 - Three side-street STOP controlled intersections
 - 15 driveway accesses
 - On-Street Parking = Lower Risk.

Current Posted Speed Limit = 50 km/h

TAC Recommended Posted Speed Limit = 70 km/h

Wellington Road 42 from Shorthill Road (east access) to Winston Churchill Boulevard

- Consider as a Major Rural Arterial Road with one lane per direction
 - Horizontal Geometry = Lower Risk
 - Vertical Geometry = Medium Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Medium Risk
 - Pedestrian Exposure = Lower Risk

- Cyclist Exposure = Lower Risk
- Pavement Surface = Lower Risk
- Four side-street STOP controlled intersections
- 43 driveway accesses
- On-Street Parking = Lower Risk.

Current Posted Speed Limit = 80 km/h

TAC Recommended Posted Speed Limit = 80 km/h

3.9.6 Potential Mitigation

Described options and their specific relevance or context in this segment:

- **Regulatory Modifications** – Implementing segment-appropriate speed limit changes align the driver behaviour with the design of the road. Consistent design results in less variation in driver behaviour which makes the expectations of all users more homogenous. Less variation in behaviour makes for greater predictability and makes the environment safer for all users. Viable option.
- **Geometric Modifications** – Controlling the speed of vehicles can be achieved by aligning the design of the road with the desired posted speed. This can be an expensive undertaking over long corridors with varied environments. Viable but expensive option.
- **Education / Enforcement** – Consistent enforcement/police presence over this length of roadway is a cost and resource issue. Over long sections of road, intense enforcement is typically not viable, infrequent enforcement not effective.
- **Do Nothing** – Doing nothing is not an option for the more urban segments of the corridor.

3.9.7 Recommendations

The posted speed limit recommendations take into account the TAC recommended posted speed limit but do consider other factors such as changes to the surrounding land uses and changes to the road cross-section. As a result, the actual posted speed limit recommendation may not fully align with the TAC recommended speed limit. The following recommendations with regard to the posted speed limits for this corridor:

- For the westernmost portion, for a distance of 600 metres east of Wellington Road 24, **increase the posted speed limit from 50 km/h to 60 km/h**
- For the remaining parts of the Wellington Road 42 corridor east to Winston Churchill Boulevard, **increase or retain the existing posted speed limit to 80 km/h.**

Figure 18 and **Figure 19** outline the existing and recommended posted speed limit along the Wellington Road 42 corridor, respectively.

Regardless of whether the recommendations related to the posted speed limit are endorsed, the speed management action plan along the corridor should also include the following improvements:

- Within the area of the recommended 60 km/h speed zone, in the longer term, **urbanize** the Wellington Road 42 corridor by adding curb and gutter on both sides of the corridor as well as a sidewalk / multi-use trail on one or both sides of the roadway.

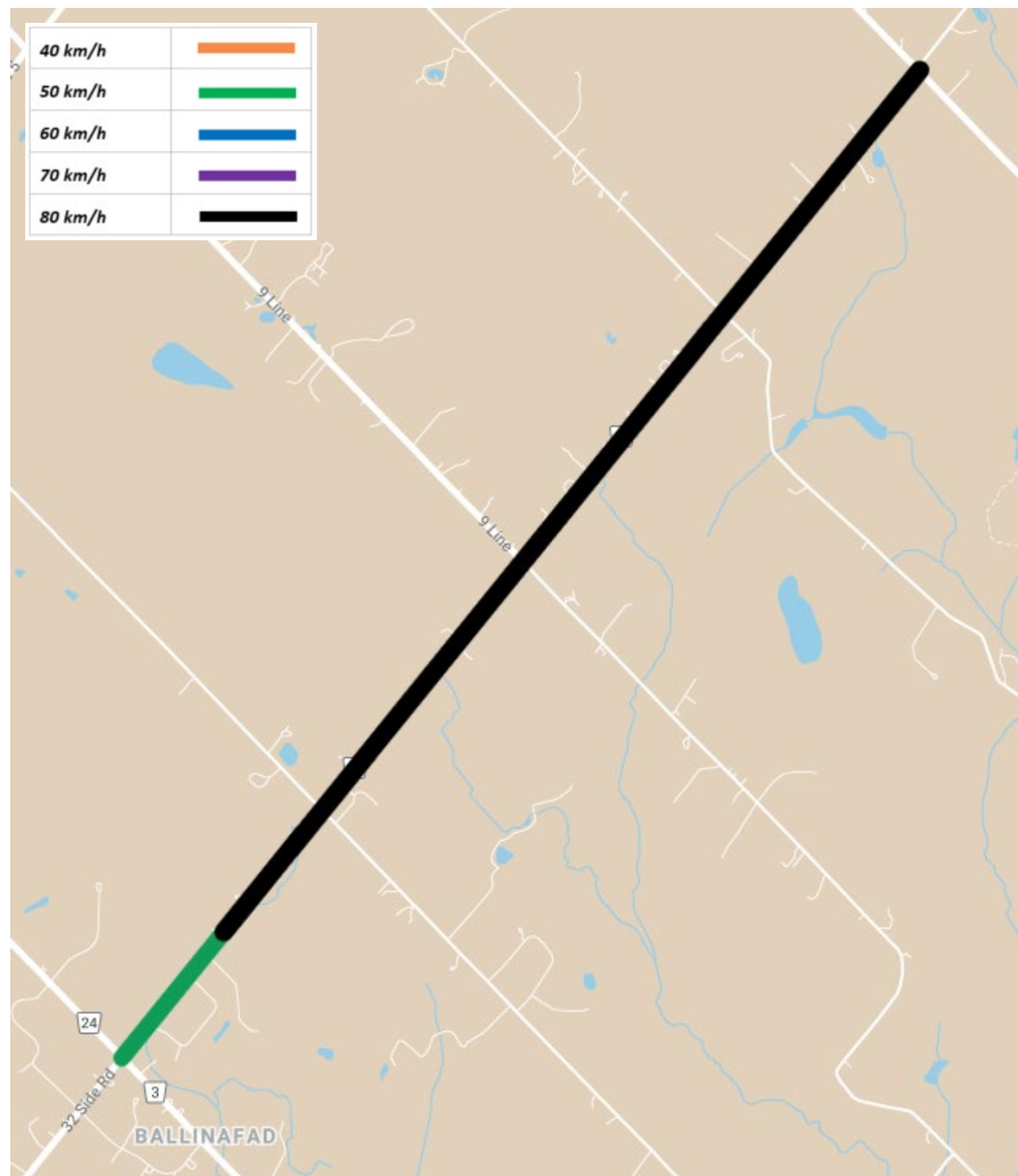


Figure 18: Existing Posted Speed Limits, Wellington Road 42, Ballinafad to Winston Churchill Blvd.

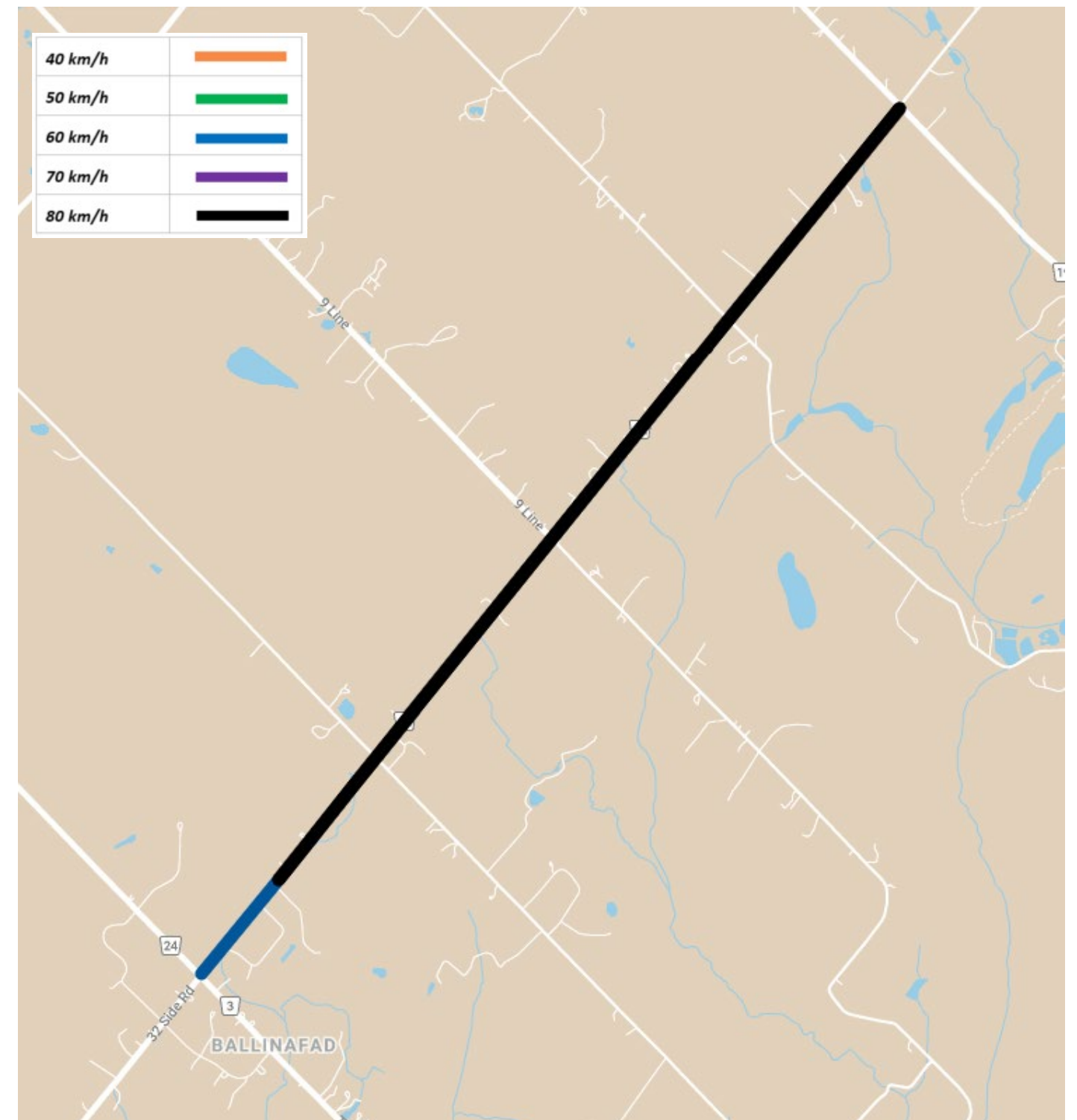


Figure 19: Recommended Posted Speed Limits, Wellington Road 42, Ballinafad to Winston Churchill Blvd.

3.10 Wellington Road 24 (Trafalgar Road) from Wellington Road 22 to Side Road 27 through Hillsburgh

3.10.1 Corridor Context

- The posted speed limit is 80 km/h to the south of Wellington Road 22, reducing to 40 km/h through the town and then extending well north of the urban limits. The 40 km/h speed limit increases to 60 km/h which then increases to 80 km/h further to the north
- Before the late 1990s, this corridor was previously under the jurisdiction of the Ministry of Transportation, Ontario (MTO) as Highway 25 and was designed and constructed to provincial specifications
- Significant grade and hill to the immediate north of Hillsburgh)
- Speed Reader (Radar Display) signage on both sides of the community
- Short downtown section with on-street parking
- Hillsburgh Arena is found on the southeast corner of Wellington Road 24 and George Street
- Ross R. MacKay Public School is found along the corridor and features a school crossing
- Rural cross-section to both the north and south of the community, with an urban cross-section (curbs, gutter, sidewalks, and street lighting) through the town limits.

3.10.2 Public Feedback

Through the Social Pinpoint exercise, we received the following feedback from the public:

- *"I quite often see vehicles speed from the library down to the fire hall way over 40 km/h. Day and night. Almost 60 km/h to 80km/h! Not safe with people walking by with strollers and dogs. At least now there is a sidewalk."*
- *"So many gravel trucks speeding up and down Trafalgar Rd N day and night."*
- *"Numerous speeding complaints."*

3.10.3 Traffic Data

The following traffic data was collected and used as part of the speed management analysis:

Wellington Road 24 (Trafalgar Road) between Wellington Road 22 and Station 24 in the more southerly portions of Hillsburgh

- Data Collection Dates: 2019-05-31
- Collected By: Wellington County
- 7.723 vehicles per day
- Posted Speed Limit = 40 km/h

- Average Speed = 48 km/h
- 85th Percentile = 57 km/h
- 95th Percentile = 61 km/h/

Wellington Road 24 (Trafalgar Road) at Market Street in Hillsburgh

- Data Collection Dates: 2020-12-20 to 2020-12-24
- Collected By: OPP
- 7,880 vehicles recorded over four days (average 1,970 vehicles per day)
- Posted Speed Limit = 40 km/h
- Average Speed = 48 km/h
- 85th Percentile = 73 km/h
- 95th Percentile = n/a
- One collision in the last 10 years, zero collisions in the last three years.

3.10.4 Problem Statements

- Relatively steep grade entering Hillsburgh from the north
- Average and 85th percentile speeds are measured well above the posted speed limit of 40 km/h
- Presence of Ross R. MacKay Public School along Wellington Road 24.

3.10.5 Posted Speed Limit Review

The TAC Canadian Guidelines for Establishing Posted Speed Limits was used to conduct a speed management review on each corridor segment. The following were the results.

Wellington Road 24 (Trafalgar Road) from Wellington Road 22 to Queen Street

- Consider as a Major Urban Arterial Road with one lane per direction
 - Horizontal Geometry = Lower Risk
 - Vertical Geometry = Medium Risk
 - Average Lane Width = Higher Risk
 - Roadside Hazards = Higher Risk
 - Pedestrian Exposure = Lower Risk
 - Cyclist Exposure = Higher Risk
 - Pavement Surface = Lower Risk
 - One STOP controlled intersection
 - One signalized intersection
 - One pedestrian crosswalk
 - Seven side-street STOP controlled intersections
 - 80 driveway accesses
 - On-Street Parking = Higher Risk.

Current Posted Speed Limit = 40 km/h
TAC Recommended Posted Speed Limit = 60 km/h

Wellington Road 24 (Trafalgar Road) from Queen Street to Side Road 27

- Consider as a Major Rural Arterial Road with one lane per direction
 - Horizontal Geometry = Lower Risk
 - Vertical Geometry = Higher Risk
 - Average Lane Width = Higher Risk
 - Roadside Hazards = Lower Risk
 - Pedestrian Exposure = Lower Risk
 - Cyclist Exposure = Lower Risk
 - Pavement Surface = Lower Risk
 - Three side-street STOP controlled intersections
 - Two driveway accesses
 - On-Street Parking = Lower Risk.

Current Posted Speed Limit = 40 km/h / 50 km/h / 80 km/h
TAC Recommended Posted Speed Limit = 80 km/h

3.10.6 Potential Mitigation

Described options and their specific relevance or context in this segment:

- **Regulatory Modifications** – Implementing segment-appropriate speed limit changes align the driver behaviour with the design of the road. Consistent design results in less variation in driver behaviour which makes the expectations of all users more homogenous. Less variation in behaviour makes for greater predictability and makes the environment safer for all users. Viable option.
- **Geometric Modifications** – Controlling the speed of vehicles can be achieved by aligning the design of the road with the desired posted speed. This can be an expensive undertaking over long corridors with varied environments. The urban portions of the road corridor (cross-section) largely aligns with the built-up areas. Generally not a viable option.
- **Education / Enforcement** – Consistent enforcement/police presence over this length of roadway is a cost and resource issue. Southbound traffic enters Hillsburgh on a steep downgrade. Presence of an elementary school along the corridor. Over long sections of road, intense enforcement is typically not viable, infrequent enforcement not effective. Viable option
- **Do Nothing** – Significant speeding or collision issues, presence of an elementary school, downtown core with higher levels of non-auto users. Doing nothing is not an option.

3.10.7 Recommendations

The posted speed limit recommendations take into account the TAC recommended posted speed limit but do consider other factors such as changes to the surrounding land uses and changes to the road

cross-section. As a result, the actual posted speed limit recommendation may not fully align with the TAC recommended speed limit. The following recommendations with regard to the posted speed limits for this corridor:

- To the immediate south of the Wellington Road 22 and Wellington Road 24 intersection, retain the existing speed zone transition location
- From the immediate south of Wellington Road 22 north through downtown Hillsburgh to the immediate north of Queen Street, increase the posted speed limit from **40 km/h to 50 km/h**
- Introduce a '**40 km/h when flashing**' **School Zone** along Wellington Road 24 fronting Ross R. MacKay Public School
- Between the immediate north of Queen Street to 60 metres north of Howe Street, increase the posted speed limit from **40 km/h to 60 km/h**
- From 60 metres north of Howe Street to Side Road 27, increase to / retain the posted speed limit **at/to 80 km/h**.

Figure 20 and **Figure 21** shows the existing and recommended posted speed along Wellington Road 24 through Hillsburgh, respectively.

Regardless of whether the recommendations related to the posted speed limit are endorsed, the speed management action plan along the corridor should also include the following improvements:

- In the short term, introduce a **Community Safety Zone (CSZ)** along Wellington Road 24 from St. Andrews Presbyterian Church (140 metres north of Station Street) north to the immediate south of Church Street
 - This Community Safety Zone would be in the recommended 50 km/h zone through downtown Hillsburgh
 - Should a Community Safety Zone (CSZ) be implemented, consider the ability or further need for **Automated Speed Enforcement (ASE)** to be introduced within the recommended 50 km/h zone, focusing on southbound traffic entering the Community Safety Zone from the north.
- In the short term, convert the existing school crosswalk fronting Ross R. MacKay Public School to a **pedestrian crossover (PXO)**
- In the short term, review the need and opportunity to introduce a **pedestrian crossover (PXO)** on Wellington Road 24 around the Mill Street / George Street intersection.



Figure 20: Existing Posted Speed Limits, Wellington Road 24, Hillsburgh



Figure 21: Recommended Posted Speed Limits, Wellington Road 24, Hillsburgh

3.11 Wellington Road 41 (Watson Road South) from City of Guelph Boundary to Wellington Road 37 (Arnell Road)

3.11.1 Corridor Context

- 80 km/h in the middle of the corridor with 50 km/h zones at either end. Within Arnell, the posted speed limit is 50 km/h within the urban areas (land use and cross-section) and increases to 80 km/h to the immediate north. To the north, the 80 km/h transitions to a 50 km/h limit right at the Arnell Ridge Sand and Gravel pit access. This 50 km/h continues north into the City of Guelph
- A relatively narrow bridge crossing the river
- Some on-street parking to the north of the bridge is associated with the Smith Property Loop Hiking Trail
- Somewhat significant vertical curves within the 80 km/h segment.

3.11.2 Public Feedback

Through the Social Pinpoint exercise, we received the following feedback from the public:

- *"The 50 km/h sign located just north of Boreham Drive means people heading south don't slow down until they get to the intersection of Arnell and Watson. The sign should be placed further north rather than right at the beginning of the hamlet."*
- *"Large semi-trucks using this road always speed through the neighborhood when it is not a truck route. Dump trucks are also speeding to get to the gravel pit."*
- *"Too many vehicles and trucks are not going 50km/h especially near the Smith property trail."*

3.11.3 Traffic Data

The following traffic data was collected and used as part of the speed management analysis:

Wellington Road 41 between Cook's Mill Road and the Eramosa River

- Data Collection Dates: 2019-06-26
- Collected By: Wellington County
- 4,749 vehicles recorded
- Posted Speed Limit = 50 km/h
- Average Speed = 55 km/h
- 85th Percentile = 65 km/h
- 95th Percentile = 70 km/h.

Wellington Road 41 at Stone Road.

- Data Collection Dates: 2020-10-28 to 2020-10-30
- Collected By: OPP
- Note: It does appear that this data was collected within the City of Guelph limits
- 9,453 vehicles recorded over two days (average 4,727 vehicles per day)
- Posted Speed Limit = 50 km/h
- Average Speed = 61 km/h
- 85th Percentile = 71 km/h
- 95th Percentile = 77 km/h
- Six collisions in the last 10 years, three collisions in the last three years.

3.11.4

Problem Statements

- Wellington Road 41 has some vertical curves when travelling north
- At the northern limits, the corridor enters a partially built-out neighbourhood with large single-family residential properties found on both sides of the corridor
- Relatively high demand for on-street parking (paved shoulder) on the east side of Wellington Road 41 fronting the Smith Property Loop Hiking Trail.

3.11.5

Posted Speed Limit Review

The TAC Canadian Guidelines for Establishing Posted Speed Limits was used to conduct a speed management review on each corridor segment. The following were the results.

Wellington Road 41 from the City of Guelph boundary to Boreham Drive

- Consider as a Major Rural Arterial Road with one lane per direction
 - Horizontal Geometry = Lower Risk
 - Vertical Geometry = Higher Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Medium Risk
 - Pedestrian Exposure = Higher Risk
 - Cyclist Exposure = Medium Risk
 - Pavement Surface = Lower Risk
 - Three side-street STOP controlled intersections
 - 20 driveway accesses
 - On-Street Parking = Higher Risk.

Current Posted Speed Limit = 50 km/h / 80 km/h

TAC Recommended Posted Speed Limit = 70 km/h

Wellington Road 41 from Boreham Drive to Wellington Road 37 (Arkell Road)

- Consider as a Major Urban Arterial Road with one lane per direction
 - Horizontal Geometry = Lower Risk
 - Vertical Geometry = Lower Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Lower Risk
 - Pedestrian Exposure = Lower Risk
 - Cyclist Exposure = Higher Risk
 - Pavement Surface = Lower Risk
 - One STOP-controlled intersection
 - One side-street STOP controlled intersections
 - 13 driveway accesses
 - On-Street Parking = Medium Risk.

Current Posted Speed Limit = 50 km/h

TAC Recommended Posted Speed Limit = 60 km/h

Figure 22 and **Figure 23** shows the existing and recommended posted speed limits along Wellington Road 41 between Wellington Road 37 and Glenholm Drive, respectively.

3.11.6 Potential Mitigation

Described options and their specific relevance or context in this segment:

- **Regulatory Modifications** – Implementing segment-appropriate speed limit changes align the driver behaviour with the design of the road. Consistent design results in less variation in driver behaviour which makes the expectations of all users more homogenous. Less variation in behaviour makes for greater predictability and makes the environment safer for all users. Viable option.
- **Geometric Modifications** – Controlling the speed of vehicles can be achieved by aligning the design of the road with the desired posted speed. This can be an expensive undertaking over long corridors with varied environments. The urban portions of the road corridor (cross-section) do not align with the built-up areas, particularly close to the Guelph city limits. Viable option.
- **Education / Enforcement** – Consistent enforcement/police presence over this length of roadway is a cost and resource issue. Over long sections of road, intense enforcement is typically not viable, infrequent enforcement not effective. Viable option, particularly within Arkell and closer to the Guelph city limits.
- **Do Nothing** – Doing nothing is not an option.

3.11.7 Recommendations

The posted speed limit recommendations take into account the TAC recommended posted speed limit but do consider other factors such as changes to the surrounding land uses and changes to the road cross-section. As a result, the actual posted speed limit recommendation may not fully align with the

TAC recommended speed limit. The following recommendations with regard to the posted speed limits for this corridor:

- From Wellington Road 37 north to just north of Boreham Drive, retain the posted speed limit of **50 km/h**
- From just north of Boreham Drive to just north of the Eramosa River bridge, reduce the posted speed limit from **80 km/h to 70 km/h** in the southern portion, while increasing the posted speed limit from **50 km/h to 70 km/h** in the northern portion
- From just north of the Eramosa River bridge to the City of Guelph boundary (Glenholm Drive), increase the posted speed limit from **50 km/h to 60 km/h**
 - Given the specific location of the boundary between the City of Guelph and the County of Wellington, it may be likely that the City of Guelph should modify the posted speed limit between Glenholm Drive and Stone Road from **50 km/h to 60 km/h**.

Regardless of whether the recommendations related to the posted speed limit are endorsed, the speed management action plan along the corridor should also include the following improvements:

- In the long-term, adjust the **road cross-section** by introducing a sidewalk or multi-use pathway on one side of Wellington Road 41 between the City of Guelph boundary and the Eramosa River bridge.



Figure 22: Existing Posted Speed Limits, Wellington Road 41, Arkell



Figure 23: Recommended Posted Speed Limits, Wellington Road 41, Arkell

3.12

Wellington Road 36 (Badenoch Street) from Highway 6 to Ochs Drive

3.12.1

Corridor Context

- A 50 km/h speed zone extends through Morriston and well east of the urban limits. Further east, the posted speed limit increases to 80 km/h. The 50 km/h posted speed limit zone extends 950 metres further east than the urban cross-section does
- The westernmost 400 metres of the corridor features a relatively tight corridor featuring sidewalks on both sides of the road, rollover curb and gutter and paved shoulders for on-street parking. To the east of this section, the corridor transitions into a rural cross-section with gravel shoulders and no sidewalks
- The developed areas on the corridor extend approximately 650 metres further east than the urban cross-section does
- The corridor has several locations where vertical deflection is significant
- Wellington Road 36 meets Highway 6 at a traffic signal.

3.12.2

Public Feedback

Through the Social Pinpoint exercise, we received the following feedback from the public:

- *"the cars speeding entering Kortright Hill going north on Downey is unreal...no one slows down. They are traveling at least 20km over the speed limit."*
- *"It is hard enough getting out of my driveway, the cars do not yield to the yellow light at all. The City needs to put speed bumps and radar to fix this."*
- *"Lots of excessive speeding both directions."*

3.12.3

Traffic Data

The following traffic data was collected and used as part of the speed management analysis:

Wellington Road 36 at Currie Drive in Morriston

- Data Collection Dates: 2020-10-28 to 2020-11-01
- Collected By: OPP
- 9,429 vehicles recorded over four days (average 2,357 vehicles per day)
- Posted Speed Limit = 50 km/h
- Average Speed = 69 km/h
- 85th Percentile = 79 km/h
- 95th Percentile = 85 km/h
- Nine collisions in the last 10 years, three collisions in the last three years.

3.12.4

Problem Statements

- Average and 85th percentile speeds are measured to be much higher than the posted speed limit of 50 km/h
- The portion of Wellington Road 36 between Back Street and Ochs Drive features large single-family residential properties on both sides of the roadway but features a rural cross-section.

3.12.5

Posted Speed Limit Review

The TAC Canadian Guidelines for Establishing Posted Speed Limits was used to conduct a speed management review on each corridor segment. The following were the results.

Wellington Road 36 (Badenoch Street) from Highway 6 to Ochs Drive:

- Consider as a Major Urban Arterial Road with one lane per direction
 - Horizontal Geometry = Lower Risk
 - Vertical Geometry = Medium Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Lower Risk
 - Pedestrian Exposure = Lower Risk
 - Cyclist Exposure = Higher Risk
 - Pavement Surface = Lower Risk
 - One signalized intersections
 - Six side-street STOP controlled intersections
 - 30 driveway accesses
 - On-Street Parking = Higher Risk.

Current Posted Speed Limit = 50 km/h

TAC Recommended Posted Speed Limit = 60 km/h

3.12.6

Potential Mitigation

Described options and their specific relevance or context in this segment:

- **Regulatory Modifications** – implementing segment-appropriate speed limit changes align the driver behaviour with the design of the road. Consistent design results in less variation in driver behaviour which makes the expectations of all users more homogenous. Less variation in behaviour makes for greater predictability and makes the environment safer for all users. Viable option.
- **Geometric Modifications** – Controlling the speed of vehicles can be achieved by aligning the design of the road with the desired posted speed. This can be an expensive undertaking over long corridors with varied environments. Viable but expensive option.
- **Education / Enforcement** – consistent enforcement/police presence over this length of roadway a cost and resource issue. Over long sections of road, intense enforcement is typically not viable, infrequent enforcement not effective.

- **Do Nothing** –Do nothing is not an option for the transitional segments.

3.12.7

Recommendations

The posted speed limit recommendations take into account the TAC recommended posted speed limit but do consider other factors such as changes to the surrounding land uses and changes to the road cross-section. As a result, the actual posted speed limit recommendation may not fully align with the TAC recommended speed limit. The following recommendations with regard to the posted speed limits for this corridor:

- On Wellington Road 36 from Highway 6 to 40 metres east of Back Street, **retain the posted speed limit of 50 km/h**
- On Wellington Road 36 from 40 metres east of Back Street to 150 metres east of Ochs Drive, **increase the posted speed limit from 50 km/h to 60 km/h**
- On Wellington Road 36 from 150 metres east of Ochs Drive to points further east, **retain/increase the posted speed limit of 80 km/h.**

Figure 24 and **Figure 25** shows the existing and recommended posted speed limits along the Wellington Road 36 corridor in Morriston, respectively.

Regardless of whether the recommendations related to the posted speed limit are endorsed, the speed management action plan along the corridor should also include the following improvements:

- In the long-term, **urbanize** the Wellington Road 36 corridor between Back Street and Ochs Drive to feature barrier curb and gutter, street lighting, and sidewalks on both sides of the corridor
 - The limits of this construction would largely be within the recommended 60 km/h speed zone.



Figure 24: Existing Posted Speed Limits, Wellington Road 36, Morriston



Figure 25: Recommended Posted Speed Limits, Wellington Road 36, Morriston

3.13 Wellington Road 32 (Lake Road) from Wellington Road 33 (Townline Road) to Concession 2

3.13.1 Corridor Context

- Rural cross-section, with paved/gravel shoulders, no streetlights or sidewalks
- Rural land uses, with limited properties taking access to or fronting the corridor, except for approximately a dozen properties on the north side of the corridor closer to the east limits of the corridor
- There is an MTO Park and Ride towards the west end of the corridor.

3.13.2 Public Feedback

Through the Social Pinpoint exercise, we received the following feedback from the public:

- *"Lake Road is frequently used by fully loaded transport trucks as an alternative to 401. They do not adhere to the 50 speed limit."*
- *"Not many who drive thru this area adhere to the speed limits. When I'm going slightly over the limit, people are often right on my bumper."*
- *"Speed is an issue and law enforcement have continuously attempted to conduct traffic initiatives. shoulders are too narrow and steep."*
- *"A 3 way stop sign would really help with traffic issues at where this road intersects with Lake Road allowing for safe exit from Old Marina to Lake Road. It will also greatly help slow down speeders who constantly go well over the 50km speed limit if they actually are forced to come to a complete stop here."*

3.13.3 Traffic Data

The following traffic data was collected and used as part of the speed management analysis:

Wellington Road 32 between Seifert Driver and Butler Avenue

- Data Collection Dates: 2019-07-02
- Collected By: Wellington County
- 6,907 vehicles per day.
- Posted Speed Limit = 50 km/h
- Average Speed = 62 km/h
- 85th Percentile = 70 km/h
- 95th Percentile = 77 km/h.

Wellington Road 32 at Wellington Road 33

- Data Collection Dates: 2020-11-02 to 2020-11-04
- Collected By: OPP
- 11,849 vehicles recorded over two days (average 5,925 vehicles per day)
- Posted Speed Limit = 50 km/h
- Average Speed = 63 km/h
- 85th Percentile = 72 km/h
- 95th Percentile = 80 km/h
- Six collisions in the last 10 years, two collisions in the last three years.

3.13.4 Problem Statements

- Average and 85th Percentile speeds are measured to be much higher than the posted speed limit of 50 km/h
- No amenities for pedestrians.

3.13.5 Posted Speed Limit Review

The TAC Canadian Guidelines for Establishing Posted Speed Limits was used to conduct a speed management review on each corridor segment. The following were the results.

Wellington Road 32 from Wellington Road 33 to Concession 2

- Consider as a Major Rural Arterial Road with one lane per direction
 - Horizontal Geometry = Medium Risk
 - Vertical Geometry = Lower Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Medium Risk
 - Pedestrian Exposure = Higher Risk
 - Cyclist Exposure = Higher Risk
 - Pavement Surface = Lower Risk
 - One signalized intersections
 - Four side-street STOP controlled intersections
 - 24 driveway accesses
 - On-Street Parking = Lower Risk.

Current Posted Speed Limit = 50 km/h

TAC Recommended Posted Speed Limit = 70 km/h

- If considered as a Major Urban Arterial Road with 1 lane per direction.

TAC Recommended Posted Speed Limit = 60 km/h

Described options and their specific relevance or context in this segment:

- **Regulatory Modifications** – Implementing segment-appropriate speed limit changes align the driver behaviour with the design of the road. Consistent design results in less variation in driver behaviour which makes the expectations of all users more homogenous. Less variation in behaviour makes for greater predictability and makes the environment safer for all users. Viable option.
- **Geometric Modifications** – Controlling the speed of vehicles can be achieved by aligning the design of the road with the desired posted speed. This can be an expensive undertaking over long corridors with varied environments. Viable but expensive option, and should be targeted along some portions of the road rather than the entire corridor.
- **Education / Enforcement** – Consistent enforcement/police presence over this length of roadway a cost and resource issue. Over long sections of road, intense enforcement is typically not viable, infrequent enforcement not effective.
- **Do Nothing** – Two segments, notable speeding issues. Doing nothing is not an option.

The posted speed limit recommendations take into account the TAC recommended posted speed limit but do consider other factors such as changes to the surrounding land uses and changes to the road cross-section. As a result, the actual posted speed limit recommendation may not fully align with the TAC recommended speed limit. The following recommendations with regard to the posted speed limits for this corridor:

- For the more-westerly portion, increase the posted speed limit from **50 km/h to 70 km/h**
- For the easterly portion that is fronting the single-family properties, increase the posted speed limit from **50 km/h to 60 km/h**.

Figure 26 and **Figure 27** shows the existing and recommended posted speed limits on Wellington Road 32 between Wellington Road 33 and Concession 2, respectively.

Regardless of whether the recommendations related to the posted speed limit are endorsed, the speed management action plan along the corridor should also include the following improvements:

- In the short-term, consider the need for a **pedestrian crossover (PXO)** on Wellington Road 32 near McClintock Drive/Butler Avenue
- In the long-term, reconstruct the easterly portion of the corridor to an **urban cross-section**, which would include curbs and gutter, a multi-use pathway on the south side of the corridor as well as street lighting.

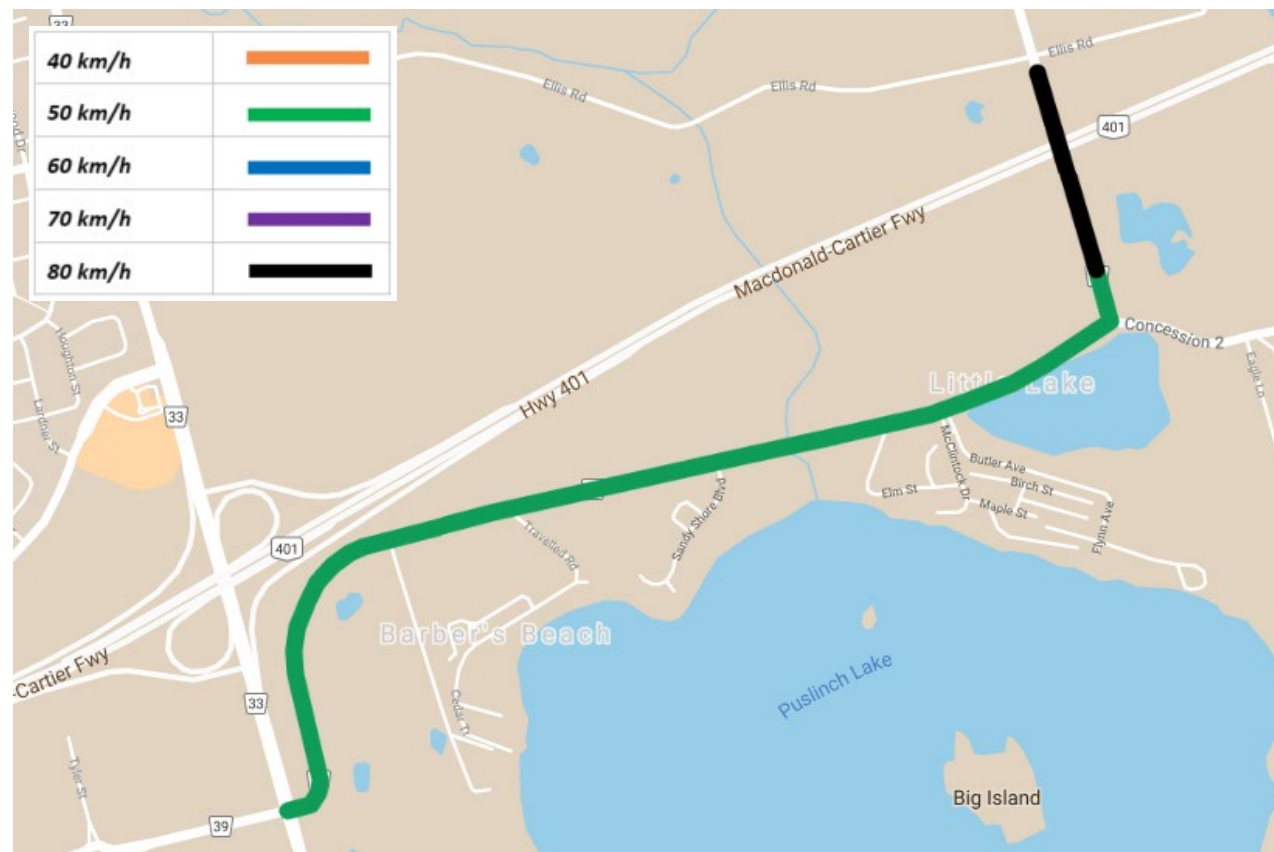


Figure 26: Existing Posted Speed Limits, Wellington Road 32 (Lake Road), Barber's Beach, Little Lake

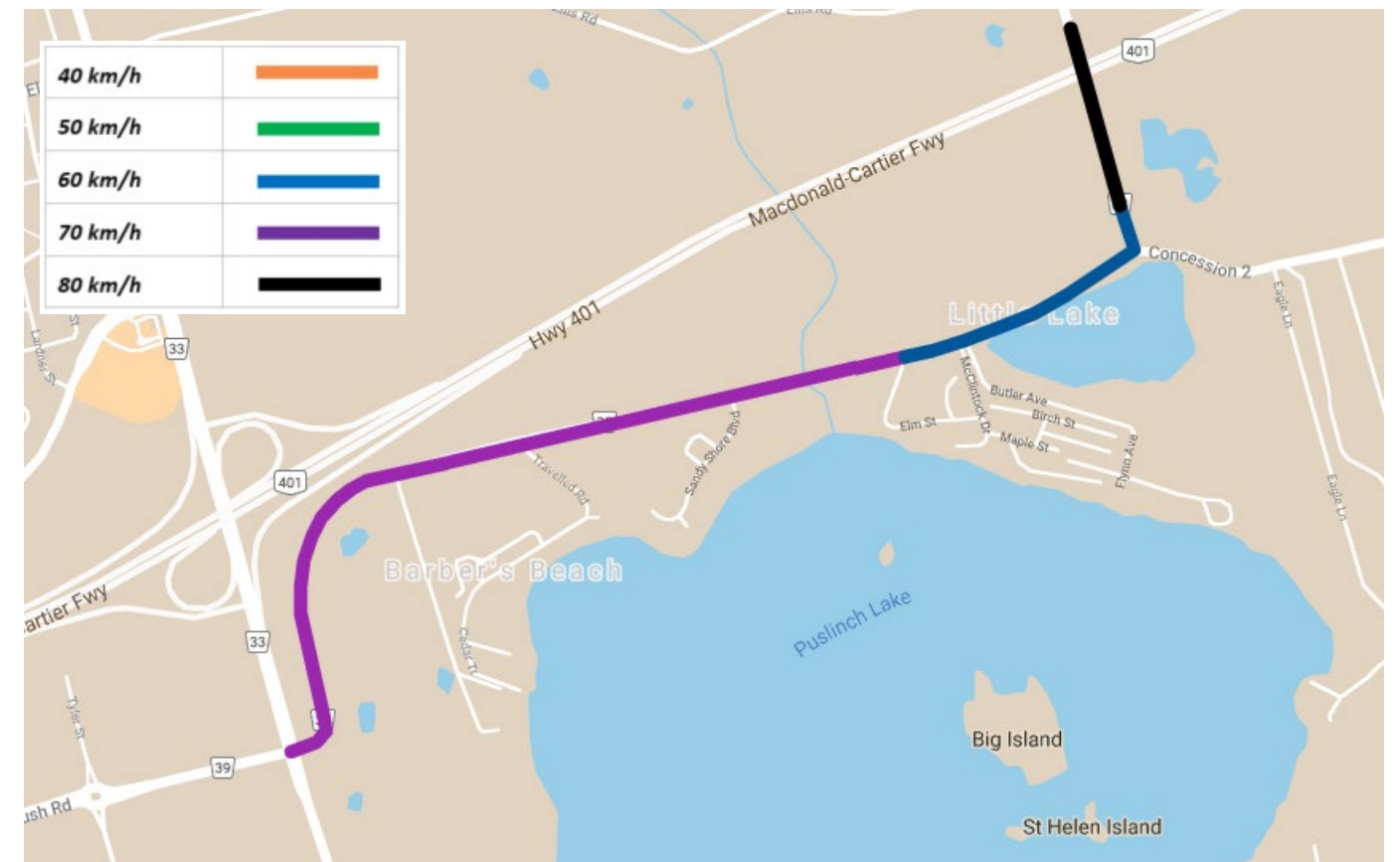


Figure 27: Recommended Posted Speed Limits, Wellington Road 32 (Lake Road), Barber's Beach, Little Lake

3.14 Wellington Road 18 (Belsyde Avenue East) from Highway 6 (Tower Street South) to Wellington Road 43 (Scotland Avenue)

3.14.1 Corridor Context

- Posted 50 km/h, except for a short section fronting JD Hogarth Public School which sees a reduced speed limit of 40 km/h
- Urban cross-section with barrier curb and gutter, sidewalks, and street lighting found along the entire corridor
- JD Hogarth Public School fronts the corridor
- Private high school on the northeast corner of Highway 6 and Wellington Road 18
- Traffic signals at Highway 6 and Scotland Street
- Pedestrian signal fronting JD Hogarth Public School.

3.14.2 Public Feedback

No public feedback was received through the Social Pinpoint exercise.

3.14.3 Traffic Data

The following traffic data was collected and used as part of the speed management analysis:

Wellington Road 18 at McTavish Street in Fergus

- Data Collection Dates: 2020-11-18 to 2020-12-23
- Collected By: OPP
- 40,344 vehicles recorded over five days (average 8,069 vehicles per day)
- Posted Speed Limit = 50 km/h
- Average Speed = 47 km/h
- 85th Percentile = 55 km/h
- 95th Percentile = 60 km/h
- Three collisions in last 10 years, two collisions in last three years.

3.14.4 Problem Statements

- Busy urban corridor within Fergus, with it being likely that there are a higher number of trucks found on the corridor given its arterial nature
- Several schools (one elementary, one secondary) along the corridor.

The TAC Canadian Guidelines for Establishing Posted Speed Limits was used to conduct a speed management review on each corridor segment. The following were the results.

Wellington Road 18 from Highway 6 to Scotland Avenue

- Consider as a Major Urban Arterial Road with one lane per direction
 - Horizontal Geometry = Lower Risk
 - Vertical Geometry = Lower Risk
 - Average Lane Width = Lower Risk
 - Roadside Hazards = Lower Risk
 - Pedestrian Exposure = Lower Risk
 - Cyclist Exposure = Higher Risk
 - Pavement Surface = Lower Risk
 - Four signalized intersections
 - Four side-street STOP controlled intersections
 - 15 driveway accesses
 - On-Street Parking = Not Available.

Current Posted Speed Limit = 50 km/h / 40 km/h / 50 km/h

TAC Recommended Posted Speed Limit = 60 km/h

Described options and their specific relevance or context in this segment:

- **Regulatory Modifications** – Implementing segment-appropriate speed limit changes align the driver behaviour with the design of the road. Consistent design results in less variation in driver behaviour which makes the expectations of all users more homogenous. Less variation in behaviour makes for greater predictability and makes the environment safer for all users. Generally, not a viable option, except surrounding the elementary school.
- **Geometric Modifications** – Controlling the speed of vehicles can be achieved by aligning the design of the road with the desired posted speed. This can be an expensive undertaking over long corridors with varied environments. Generally, not a viable option, as the corridor's cross-section is urbanized.
- **Education / Enforcement** – Consistent enforcement/police presence over this length of roadway is a cost and resource issue. Over long sections of road, intense enforcement is typically not viable, infrequent enforcement not effective. Automated enforcement is a viable option fronting the elementary school.
- **Do Nothing** – Doing nothing is generally not an option due to the presence of the elementary school.

The posted speed limit recommendations take into account the TAC recommended posted speed limit but do consider other factors such as changes to the surrounding land uses and changes to the road cross-section. As a result, the actual posted speed limit recommendation may not fully align with the TAC recommended speed limit. The following recommendations with regard to the posted speed limits for this corridor:

- **Retain the posted speed limit at 50 km/h** along the entirety of the Wellington Road 18 corridor in Fergus
- Remove the existing 40 km/h speed limit zone fronting JD Hogarth Public School and replace it with a **'40 km/h when flashing' School Zone**
 - When the flashing lights are not illuminated, the posted speed limit fronting JD Hogarth Public School would be 50 km/h.

Figure 28 and **Figure 29** show the existing and recommended posted speed limits along Wellington Road 18 corridor in Fergus, respectively.

Regardless of whether the recommendations related to the posted speed limit are endorsed, the speed management action plan along the corridor should also include the following improvements:

- Introduce **Automated Speed Enforcement (ASE)** within the recommended '40 km/h when flashing' School Zone in front of JD Hogarth Public School.



Figure 28: Existing Posted Speed Limits, Wellington Road 18, Fergus

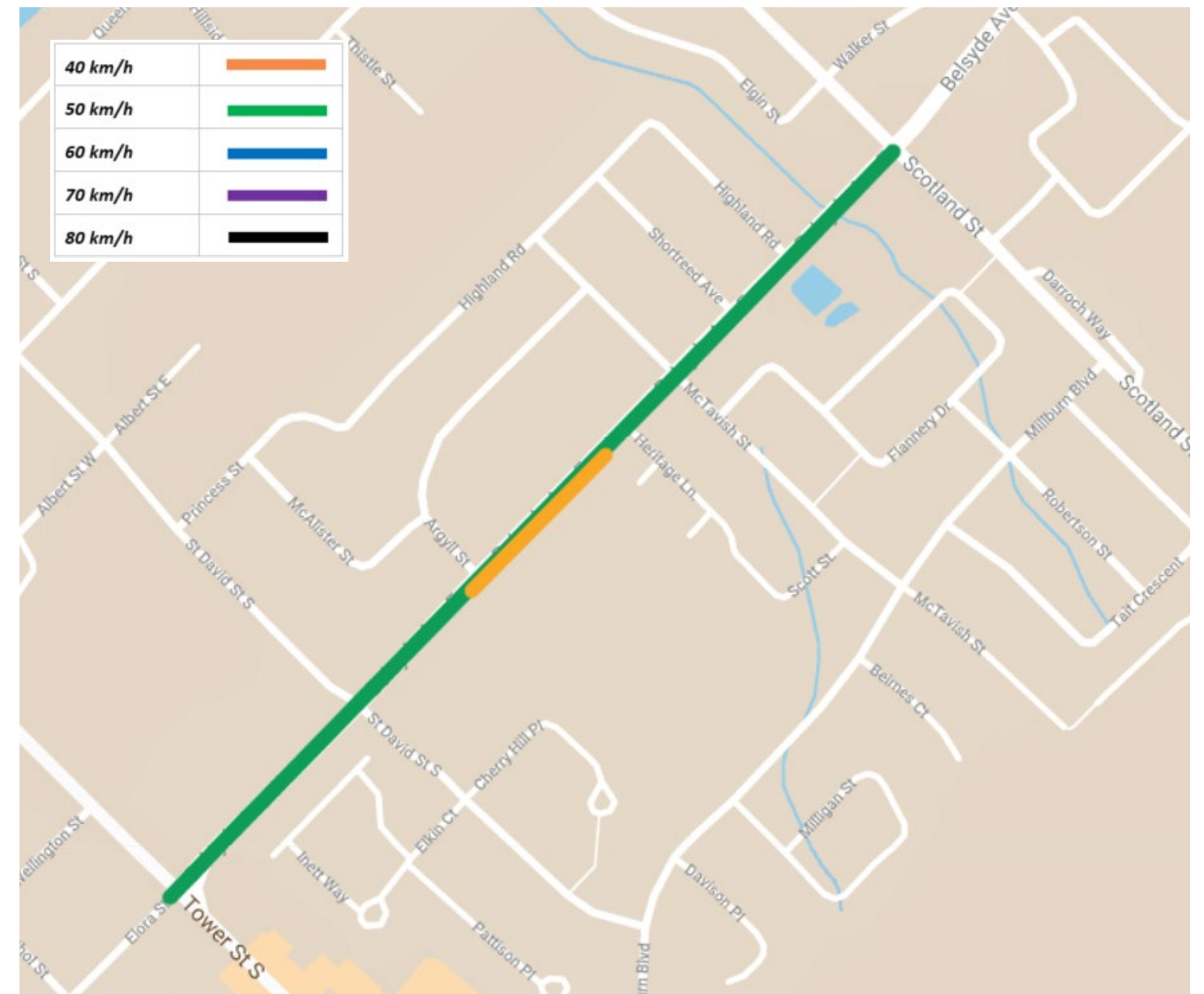


Figure 29: Recommended Posted Speed Limits, Wellington Road 18, Fergus

3.15 Wellington Road 6 (Sligo Road) from Grey County Limit to Highway 6 (Main Street North)

3.15.1 Corridor Context

- The posted speed limit is 50 km/h from Highway 6 northeast for approximately 1.5 kilometres. The posted speed limit increases to 60 km/h further northeast, around the horizontal curve, where it then increases to 80 km/h once within Grey County
- The urban cross-section (curb and gutter, sidewalks, and street lighting) extends from Highway 6 northeast to Church Street. Beyond this point, and in front of Wellington Heights High School, the corridor transitions to a rural cross-section with no curbs or sidewalks. This rural cross-section extends northeast within the study area
- A pedestrian signal exists at the intersection of Wellington Road 6 and Church Street
- Aside from the horizontal curve found outside of the community area, the corridor is straight and flat.

3.15.2 Public Feedback

Through the Social Pinpoint exercise, we received the following feedback from the public:

- *"A good deal of transport trucks travel on this road. There is also a school, so lots of kids walking on the sidewalk. Speed limit needs to be reassessed."*
- *"The speed limit on this road heading into Southgate township on Southgate Sideroad 41 needs to be decreased in both townships. The concentration of people using this road will only increase in the future. Both townships need to re-evaluate."*
- *"Sligo Road east is a drag strip. Many high speeds on this stretch while passing by the high school."*

3.15.3 Traffic Data

The following traffic data was collected and used as part of the speed management analysis:

Wellington Road 6 at Highway 89

- Data Collection Dates: 2020-11-14 to 2020-11-17
- Collected By: OPP
- 3847 vehicles recorded over three days (average 1,282 vehicles per day)
- Posted Speed Limit = 50 km/h
- Average Speed = 53 km/h
- 85th Percentile = 69 km/h

- 95th Percentile = 76 km/h
- Five collisions in the last 10 years, zero collisions in the last three years.

Note: This data collection location was outside of the specific study limits. No other speed/volume data within the study area was available.

3.15.4 Problem Statements

- Based on the available data, 85th percentile speeds are measured to be well over the posted speed limit of 50 km/h
- Varying degrees of urbanization along the corridor with levels of urban cross-sections provided along the corridor
- Rural cross-section of corridor found directly in front of Wellington Heights High School.

3.15.5 Posted Speed Limit Review

The TAC Canadian Guidelines for Establishing Posted Speed Limits was used to conduct a speed management review on each corridor segment. The following were the results.

Wellington Road 6 from Highway 6 to London Road

- Consider as a Major Urban Arterial Road with one lane per direction
 - Horizontal Geometry = Lower Risk
 - Vertical Geometry = Lower Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Lower Risk
 - Pedestrian Exposure = Lower Risk
 - Cyclist Exposure = Higher Risk
 - Pavement Surface = Lower Risk
 - One signalized intersections
 - Five side-street STOP controlled intersections
 - One pedestrian crosswalk (signalized)
 - 25 driveway accesses
 - On-Street Parking = Lower Risk.

Current Posted Speed Limit = 50 km/h

TAC Recommended Posted Speed Limit = 60 km/h

Wellington Road from London Road to Grey County limits

- Consider as Major Rural Arterial Road with one lane per direction.
 - Horizontal Geometry = Medium Risk
 - Vertical Geometry = Lower Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Medium Risk
 - Pedestrian Exposure = Lower Risk
 - Cyclist Exposure = Lower Risk

- Pavement Surface = Lower Risk
- Zero signalized intersections
- Two side-street STOP controlled intersections
- 13 driveway accesses
- On-Street Parking = Lower Risk.

Current Posted Speed Limit = 50 km/h / 60 km/h
TAC Recommended Posted Speed Limit = 80 km/h

3.15.6 Potential Mitigation

Described options and their specific relevance or context in this segment:

- **Regulatory Modifications** – Implementing segment-appropriate speed limit changes align the driver behaviour with the design of the road. Consistent design results in less variation in driver behaviour which makes the expectations of all users more homogenous. Less variation in behaviour makes for greater predictability and makes the environment safer for all users. Viable option.
- **Geometric Modifications** – Controlling the speed of vehicles can be achieved by aligning the design of the road with the desired posted speed. This can be an expensive undertaking over long corridors with varied environments. Viable option.
- **Education / Enforcement** – Consistent enforcement/police presence over this length of roadway is a cost and resource issue. Over long sections of road, intense enforcement is typically not viable, infrequent enforcement not effective.
- **Do Nothing** – Doing nothing is not an option for some of the segments.

3.15.7 Recommendations

The posted speed limit recommendations take into account the TAC recommended posted speed limit but do consider other factors such as changes to the surrounding land uses and changes to the road cross-section. As a result, the actual posted speed limit recommendation may not fully align with the TAC recommended speed limit. The following recommendations with regard to the posted speed limits for this corridor:

- **Retain the posted speed limit of 50 km/h** from Highway 6 northeast across the majority of the Wellington Heights High School Parcel, with the 50 km/h speed limit zone extending to the limits of the last single-family property on the south side of the corridor (found across from the high school)
- To the northeast of the last single-family property found across from the high school, **increase the posted speed limit from either 50 km/h / 60 km/h to 70 km/h** for the remaining eastern portion of the corridor
- Liaise with Grey County as a short portion of their corridor's posted speed limit to the immediate north of the one horizontal curve should be **increased from 60 km/h to 70 km/h**.

Figure 30 and **Figure 31** show the existing and recommended posted speed limits along Wellington Road 6 in Mount Forest, respectively.

Regardless of whether the recommendations related to the posted speed limit are endorsed, the speed management action plan along the corridor should also include the following improvements:

- In the short-term, **introduce chevron signage** on the outside of the one horizontal curve found close to the Grey County boundary, this would face traffic in both directions
- In the short-term, **confirm if advisory posted speed limits** should be introduced in advance of the one horizontal curve found close to the Grey County boundary
- In the relatively short-term, **urbanize the Wellington Road 6 corridor** fronting the Wellington Heights High School so it generally matches what is present to the southeast of Church Street (barrier curb and gutter, sidewalks, etc.).



Figure 30: Existing Posted Speed Limit - Wellington Road 6, Mount Forest



Figure 31: Recommended Posted Speed Limit - Wellington Road 6, Mount Forest

3.16 Wellington Road 11 (Wellington Street South) from Wellington Road 8 (Main Street) to Concession Road 8

3.16.1 Corridor Context

- The southern portion of the corridor is rural with gravel shoulders and transitions to an urban cross-section with barrier curb and gutter sidewalks and street lights right in front of the Community Mennonite Fellowship Church
- The posted speed limit within the more southerly rural limits is 80 km/h. To the immediate south of the Community Mennonite Fellowship Church, the posted speed limit increases to 50 km/h for a distance of approximately 275 metres. From this point north, the posted speed limit is 40 km/h north through to Wellington Road 8
- The majority of the corridor within the existing 40 km/h zone curves vertically down towards Wellington Road 8
- Drayton Heights Public School is adjacent to the corridor
- Wellington Road 11 meets Wellington Road 8 at a traffic signal
- The most northern block of the corridor is found within a downtown context with on-street parking found on both sides of the road.

3.16.2 Public Feedback

Through the Social Pinpoint exercise, we received the following feedback from the public:

- *"the speed needs to be lowered MUCH further back or indicators such as rumble strip style white lines across the road to give drivers the indication of speed OR speed humps (not speed bumps). The school zone is immediately after this and drivers fly on through!"*
- *"Drivers speeding downhill from the arena toward the fire hall trying to catch the lights. There is a walk path hidden behind the bridge on both sides of the road with no pedestrian crosswalk indicators/song age of any kind."*
- *"I watched a truck go 70km/hr through the pedestrian crosswalk while it was flashing and people waiting to cross. I was watching the speed sign posted at the school - he was doing 70km/hr exactly, it's 50km/hr at this intersection"*

3.16.3

Traffic Data

The following traffic data was collected and used as part of the speed management analysis:

Wellington Road 11 at Andrews Drive

- Data Collection Dates: 2020-11-11 to 2020-11-14
- Collected By: OPP
- 4,973 vehicles recorded over three days (average 1,658 vehicles per day)
- Posted Speed Limit = 50 km/h
- Average Speed = 52 km/h
- 85th Percentile = 64 km/h
- 95th Percentile = 69 km/h
- Three collisions in the last 10 years, zero collisions in the last three years.

3.16.4

Problem Statements

- Operating speeds measured above the posted speed limit
- Long stretch of downhill when travelling north towards downtown Drayton
- Presence of Drayton Heights Public School along the corridor.

3.16.5

Posted Speed Limit Review

The TAC Canadian Guidelines for Establishing Posted Speed Limits was used to conduct a speed management review on each corridor segment. The following were the results.

Wellington Road 11 (Wellington Street) from Main Street (Wellington Road 8) to the Community Mennonite Fellowship Church

- Consider as a Major Urban Arterial Road with one lane per direction:
 - Horizontal Geometry = Lower Risk
 - Vertical Geometry = Medium Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Lower Risk
 - Pedestrian Exposure = Lower Risk
 - Cyclist Exposure = Medium Risk
 - Pavement Surface = Lower Risk
 - One signalized intersection
 - Five side-street STOP controlled intersections
 - 25 driveway accesses
 - On-Street Parking = Higher Risk.

Current Posted Speed Limit = 50 km/h / 40 km/h
TAC Recommended Posted Speed Limit = 60 km/h

- If considered as Major Rural Arterial Road with 1 lane in each direction.

TAC Recommended Posted Speed Limit = 60 km/h

3.16.6 Potential Mitigation

Described options and their specific relevance or context in this segment:

- **Regulatory Modifications** – Implementing segment-appropriate speed limit changes align the driver behaviour with the design of the road. Consistent design results in less variation in driver behaviour which makes the expectations of all users more homogenous. Less variation in behaviour makes for greater predictability and makes the environment safer for all users, with a specific focus near the elementary school. Viable option.
- **Geometric Modifications** – Controlling the speed of vehicles can be achieved by aligning the design of the road with the desired posted speed. This can be an expensive undertaking over long corridors with varied environments. Viable option.
- **Education / Enforcement** – Consistent enforcement/police presence over this length of roadway is a cost and resource issue. Over long sections of road, intense enforcement is typically not viable, infrequent enforcement not effective. Viable option close to the elementary school.
- **Do Nothing** – Doing nothing is generally not an option.

3.16.7 Recommendation

The posted speed limit recommendations take into account the TAC recommended posted speed limit but do consider other factors such as changes to the surrounding land uses and changes to the road cross-section. As a result, the actual posted speed limit recommendation may not fully align with the TAC recommended speed limit. The following recommendations with regard to the posted speed limits for this corridor:

- Slightly **shift the speed limit transition** between the current 50 km/h and 80 km/h zones approximately 85 metres further north so it occurs at the south property line of the Community Mennonite Fellowship Church and generally where the road cross-section transitions from rural to urban
- Increase the posted speed limit along the entirety of Wellington Road 11 from **40 km/h to 50 km/h**
- Introduce a **'40 km/h when flashing'** School Zone in front of Drayton Heights Public School.

Figure 32 and

Figure 33

show the existing and recommended posted speed limits on Wellington Road 11 south of Wellington Road 8 in Drayton, respectively.

Regardless of whether the recommendations related to the posted speed limit are endorsed, the speed management action plan along the corridor should also include the following improvements:

- In the short-term, introduce a **Speed Reader (Radar Display)** sign facing northbound traffic to the north of Drayton Heights Public School

- Introducing **Automated Speed Enforcement (ASE)** within the recommended '40 km/h when flashing' School Zone in front of Drayton Heights Public School
- In the long-term, introduce a **Pedestrian Crossover (PXO)** on Wellington Road 11 at Andrews Drive
- In the long-term, **modify the road's cross-section** to narrow the travel lanes by painting a white lane line to either introduce on-street-painted bike lanes in both directions or an on-street parking lane with curb extensions on one side of the road.



Figure 32: Existing Posted Speed Limits - Wellington Road 11, Drayton

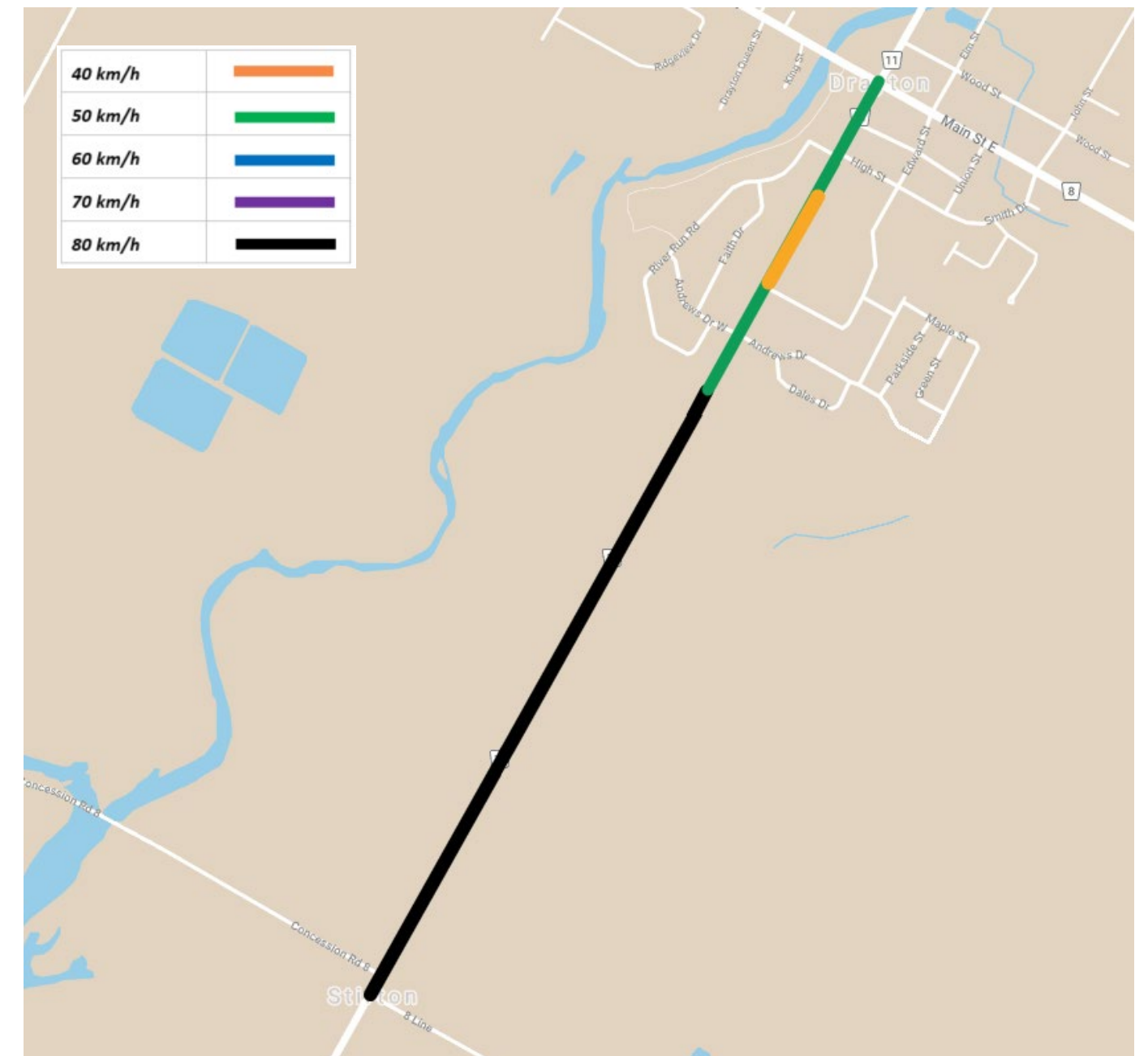


Figure 33: Recommended Posted Speed Limits - Wellington Road 11, Drayton