

# Speed Management Corridor Reviews

Wellington County Roads Committee

September 14, 2021



**DILLON**  
CONSULTING

# Agenda



## Overview



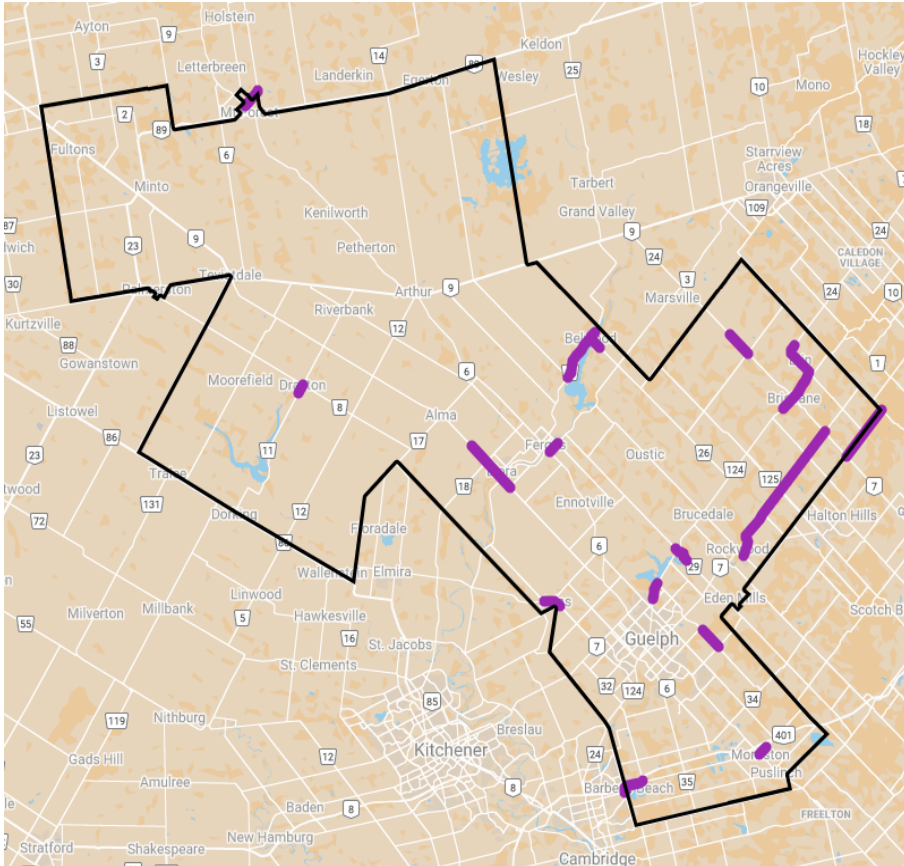
## Approach and Key Recommendations

- Speed management options
- Technical solutions
- Local sensitivities
- Recommendations



## Discussion

# Overview – Corridors Assessed



- Wellington Road 124 from 6th Line to 10th Line (through both Brisbane and Erin)
- Wellington Road 7 from Side Road 11 to First Line
- Wellington Road 86 from Eight Line to 5697 Wellington Road 86
- Wellington Road 19 from Wellington Road 16 to 8746 Wellington Road 19
- Wellington Road 26 from Wellington Road 19 to Side Road 9
- Wellington Road 50 from Highway 7 to Wellington Road 24
- Wellington Road 124 from Guelph east boundary to Watson Parkway
- Wellington Road 29 from Side Road 10 to 300 metres north of Wellington Road 124
- Wellington Road 42 from Trafalgar Road (Wellington Road 24) to Winston Churchill Boulevard
- Wellington Road 24 from Wellington Road 22 to Side Road 27 through Hillsburgh
- Wellington Road 41 from City of Guelph Boundary to Wellington Road 37 (Arkell Road)
- Wellington Road 36 from Highway 6 to Ochs Drive
- Wellington Road 32 from Wellington Road 33 to Concession 2
- Wellington Road 18 from Highway 6 to Scotland Avenue
- Wellington Road 6 from Grey County Limit to Highway 6
- Wellington Road 11 from Wellington Road 8 to Concession Road 8

# Overview



Wellington Road 36

- 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 are noted as follows:
  - Regulatory Modifications
  - Geometric Modifications
  - Education / Enforcement
  - Any combination of any 2 or more of these measures
  - Do Nothing

# Overview

## Speed Management Options

- Regulatory Modifications:
  - Speed Limit Adjustments
  - School Zones
  - Community Safety Zones (CSZs)
  - Automated Speed Enforcement (ASE)
- Geometric Modifications:
  - Cross-Section Adjustments
  - Traffic Calming
  - Pedestrian Crossovers (PXOs)
- Education Campaigns & Enforcement
- Do Nothing





# Technical Solutions

# Technical Solutions

- Specific solutions and physical modifications to review and potentially modify regulations or geometry have been identified. These recommendations reflect a technically preferred approach to addressing specific issues
- The next step is to bring the options and technical findings to decision-makers to determine best solutions moving forward



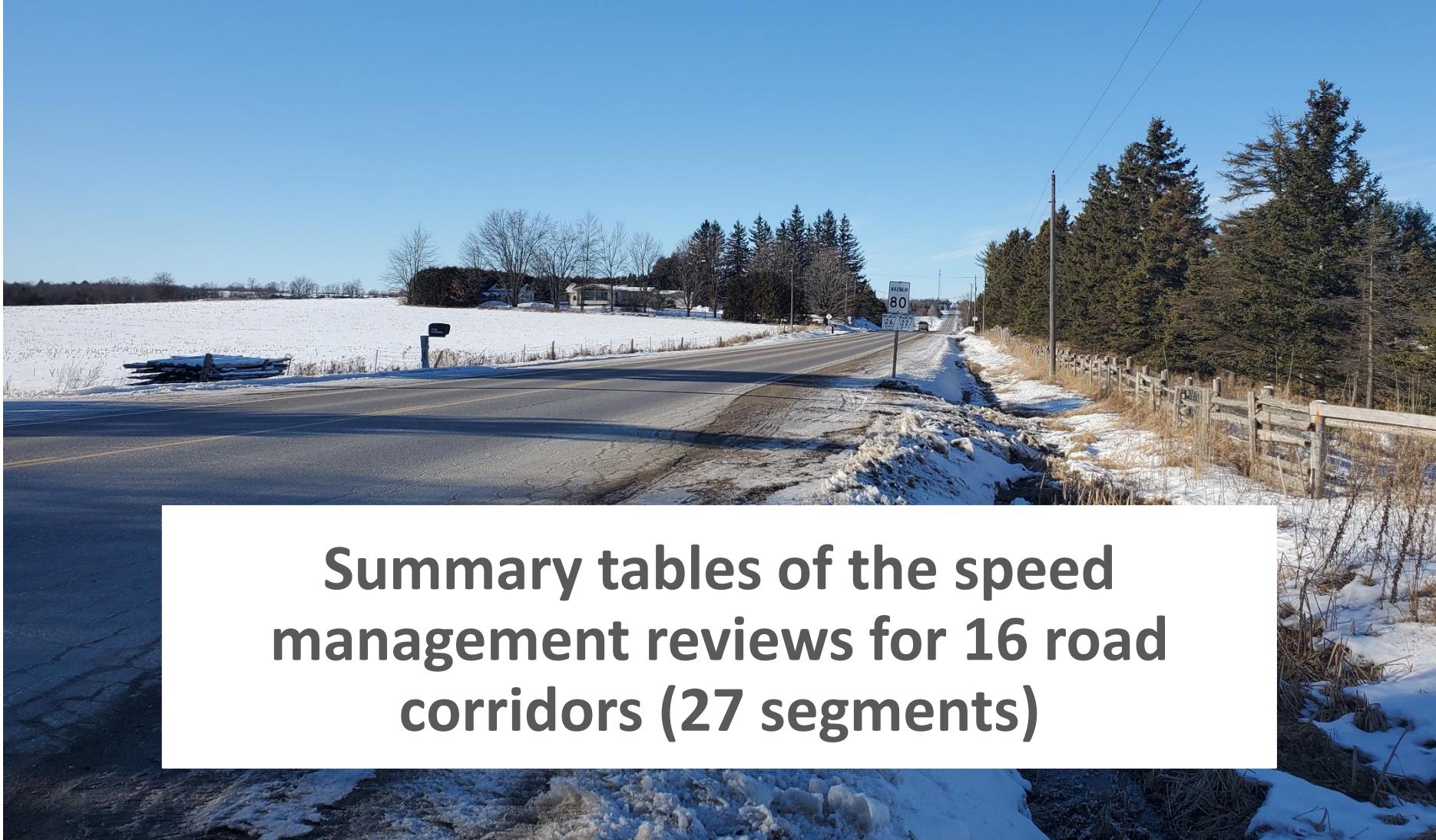
Wellington Road 24

# Technical Solutions

- **Goal:** Perform a speed management review of specific corridors where there were known speeding concerns, and coming up with transparent improvements that are consistent, credible and appropriate on the County road network
- Potential speed management measures on corridors:
  - Adjust posted speed limits
  - Implement physical or design matters
  - Further education or enforcement



Wellington Road 41



**Summary tables of the speed  
management reviews for 16 road  
corridors (27 segments)**

# Summary of Technical Solutions (1 of 6)

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 <sup>th</sup> Line to 10 <sup>th</sup> Line (through Brisbane and Erin, including Main Street)	<ul style="list-style-type: none"> <li>Average and 85th percentile speeds are found to be well above the posted speed limits</li> <li>Limits of urban cross-sections do not adequately match some of the surrounding land-uses in some areas</li> <li>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.</li> </ul>	Decrease / Retain / Increase	X	X	-	-	<ul style="list-style-type: none"> <li>Several changes to posted speed limits (increases, decreases and transition adjustments)</li> <li>Introduce a flashing 60 km/h school zone fronting Brisbane Public School</li> <li>Considerations for additional PXOs within Erin</li> <li>Introduction of traffic calming (curb extensions) through Erin</li> <li>Urbanization of some sections of the corridor both north and south of Erin.</li> </ul>
Wellington Road 7 from Side Road 11 to First Line	<ul style="list-style-type: none"> <li>Southbound traffic on Wellington Road 7 approaching Wellington Road 18 enters the more developed (urban areas) on a downgrade</li> <li>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</li> <li>Generally, both the average speed and 85th percentile speed are noted to be well above the posted 50 km/h speed limit.</li> </ul>	Increase	X	X	X	-	<ul style="list-style-type: none"> <li>Changes to posted speed limit along the entire corridor (50 km/h to 60 km/h)</li> <li>Speed reader signs facing traffic entering the recommended 60 km/h zone from both the north and south</li> <li>Urbanization of the entire corridor within the recommended 60 km/h zone</li> <li>Continued enforcement from the Wellington County OPP.</li> </ul>
Wellington Road 86 from Eight Line to 5697 Wellington Road 86	<ul style="list-style-type: none"> <li>High speeds on the corridor with the corridor constructed to a high design standard</li> <li>A small pocket of large single-family homes on both sides of the corridor to the southeast of Wellington Road 51.</li> </ul>	Retain	-	-	X	X	<ul style="list-style-type: none"> <li>Retain the existing posted speed limit (80 km/h)</li> <li>Continued enforcement from the Wellington County OPP.</li> </ul>

# Summary of Technical Solutions (2 of 6)

Corridor	Problem Statements	Technical Finding – Posted Speed Limit Review	Potential Mitigation				Summary of Recommendations
			Regulatory Modification	Physical Modification	Education / Enforcement	Do Nothing	
Wellington Road 19 from Wellington Road 16 to 8746 Wellington Road 19	<ul style="list-style-type: none"> <li>Both the average and 85<sup>th</sup> percentile speeds are measured to be higher than the posted speed both within and outside of Belwood</li> <li>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 5<sup>th</sup> Line.</li> </ul>	Retain / Increase	X	X	-	-	<ul style="list-style-type: none"> <li>Changes to posted speed limits (50 km/h to 60 km/h) through Belwood</li> <li>Speed reader signs facing traffic entering Belwood</li> <li>Urbanization of corridor through Belwood</li> <li>Consideration for a multi-use pathway near campgrounds.</li> </ul>
Wellington Road 26 (North/South Broadway Street) from Wellington Road 19 to Side Road 9	<ul style="list-style-type: none"> <li>High speeds measured well above the posted speed limits</li> <li>Relatively steep downgrades approaching the Grand River from both sides</li> <li>Posted speed limit change occurs in the vicinity of Side Road 9. However, the road cross-section and adjacent environment remain the same</li> <li>Limited urban context along the cross-section, such as curbs, sidewalks, etc.</li> </ul>	Retain / Increase	X	X	X	-	<ul style="list-style-type: none"> <li>Changes to posted speed limit south of Grand River (50 km/h to 60 km/h)</li> <li>Retain the existing posted speed limit (50 km/h) from Grand River to Wellington Road 19</li> <li>Add a second speed display sign facing northbound traffic</li> <li>Consider urbanizing the full limits of the corridor.</li> </ul>
Wellington Road 50 from Highway 7 (Main Street South) to Wellington Road 24 (Trafalgar Road)	<ul style="list-style-type: none"> <li>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</li> <li>On Wellington Road 50 between 3<sup>rd</sup> Line and 5<sup>th</sup> 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.</li> </ul>	Decrease / Retain / Increase	X	-	-	X	<ul style="list-style-type: none"> <li>Retention of existing posted speed limit within Rockwood (50 km/h)</li> <li>Changes to posted speed limit east of railway (50 km/h and 80 km/h to 70 km/h)</li> <li>Changes to posted speed limit between 3<sup>rd</sup> Line and 5<sup>th</sup> Line (70 km/h to 80 km/h)</li> <li>Review advisory speed sign tabs at horizontal curves east of the railway crossing.</li> </ul>

# Summary of Technical Solutions (3 of 6)

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 City of Guelph boundary to Watson Road North	<ul style="list-style-type: none"> <li>Average and 85<sup>th</sup> Percentile speeds are measured well above the posted speed limit of 50 km/h</li> <li>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).</li> </ul>	Increase	X	X	-	-	<ul style="list-style-type: none"> <li>Changes to the posted speed limit (50 km/h to 70 km/h)</li> <li>Consider urbanizing limits of the corridor.</li> </ul>
Wellington Road 29 from Side Road 10 to 300 metres north of Wellington Road 124	<ul style="list-style-type: none"> <li>Average and 85<sup>th</sup> percentile speeds are notably higher than the posted speed limit of 60 km/h</li> <li>A small number of residential properties along Wellington Road 29 both north and south of Wellington Road 124</li> <li>Relatively tight horizontal curves along Wellington Road 29 to the south of Wellington Road 124.</li> </ul>	Increase	X	-	X	-	<ul style="list-style-type: none"> <li>Changes to the posted speed limit (60 km/h to 70 km/h)</li> <li>Add speed display signs facing horizontal curves</li> <li>Review advisory speed sign tabs on horizontal curves.</li> </ul>
Wellington Road 42 from Wellington Road 24 (Trafalgar Road) to Wellington Road 25 (Winston Churchill Boulevard)	<ul style="list-style-type: none"> <li>At both locations where speed and volume data were collected, the average and 85<sup>th</sup> percentile speeds are measured to be much higher than the posted speed limit</li> <li>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.</li> </ul>	Increase	X	X	X	-	<ul style="list-style-type: none"> <li>Changes to the posted speed limit (50 km/h to 60 km/h) within Ballinfad</li> <li>Consider urbanizing some portions of the corridor.</li> </ul>

# Summary of Technical Solutions (4 of 6)

Corridor	Problem Statements	Technical Finding – Posted Speed Limit Review	Potential Mitigation				Summary of Recommendations
			Regulatory Modification	Physical Modification	Education / Enforcement	Do Nothing	
Wellington Road 24 (Trafalgar Road) from Wellington Road 22 to Side Road 27 through Hillsburgh	<ul style="list-style-type: none"> <li>Relatively steep grade entering Hillsburgh from the north</li> <li>Average and 85<sup>th</sup> percentile speeds are measured well above the posted speed limit of 40 km/h</li> <li>Presence of Ross R. MacKay Public School along Wellington Road 24.</li> </ul>	Increase	X	-	X	-	<ul style="list-style-type: none"> <li>Changes to the posted speed limit (40 km/h to 50 km/h) within Hillsburgh</li> <li>Changes to the posted speed limit (40 km/h to 60 km/h) north of Hillsburgh</li> <li>Introduction of a flashing 40 km/h school zone fronting Ross. R. MacKay Public School</li> <li>Introduce CSZ through downtown Hillsburgh</li> <li>Introduce ASE focusing on southbound traffic entering downtown Hillsburgh from the north</li> <li>Add PXO near Ross. R. MacKay Public School</li> <li>Review opportunities for a PXO in downtown Hillsburgh.</li> </ul>
Wellington Road 41 (Watson Road South) from City of Guelph Boundary to Wellington Road 37 (Arkell Road)	<ul style="list-style-type: none"> <li>Wellington Road 41 has some vertical curves when travelling north</li> <li>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</li> <li>Relatively high demand for on-street parking (paved shoulder) on the east side of Wellington Road 41 fronting the Smith Property Loop Hiking Trail.</li> </ul>	Decrease / Retain / Increase	X	X	-	-	<ul style="list-style-type: none"> <li>Increases to the posted speed limit (50 km/h to 60 km/h) closer to the city of Guelph boundary</li> <li>Reductions to the posted speed limit (80 km/h to 70 km/h) to the north of Arkell</li> <li>Retention of the existing posted speed limit (50 km /h) within Arkell</li> <li>Modification of road cross-section between Eramosa Rive and Guelph boundary.</li> </ul>

# Summary of Technical Solutions (5 of 6)

Corridor	Problem Statements	Technical Finding – Posted Speed Limit Review	Potential Mitigation				Summary of Recommendations
			Regulatory Modification	Physical Modification	Education / Enforcement	Do Nothing	
<b>Wellington Road 36 (Badenoch Street) from Highway 6 to Ochs Drive</b>	<ul style="list-style-type: none"> <li>Average and 85<sup>th</sup> percentile speeds are measured to be much higher than the posted speed limit of 50 km/h</li> <li>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.</li> </ul>	Retain / Increase	X	X	-	-	<ul style="list-style-type: none"> <li>Retain the existing posted speed limit (50 km/h) between Highway 6 and 40 metres east of Back Street</li> <li>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</li> <li>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</li> <li>Urbanization of the corridor between Back Street and Ochs Drive.</li> </ul>
<b>Wellington Road 32 (Lake Road) from Wellington Road 33 (Townline Road) to Concession 2</b>	<ul style="list-style-type: none"> <li>Average and 85<sup>th</sup> Percentile speeds are measured to be much higher than the posted speed limit of 50 km/h</li> <li>No amenities for pedestrians.</li> </ul>	Increase	X	X	-	-	<ul style="list-style-type: none"> <li>Changes to the posted speed limit (50 km/h to 70 km/h) on the west portion of Wellington Road 32</li> <li>Changes to the posted speed limit (50 km/h to 60 km/h) on the east portion of Wellington Road 32</li> <li>Review opportunities for a PXO at McClintock Drive / Butler Avenue</li> <li>Urbanization of the east portion of the corridor.</li> </ul>
<b>Wellington Road 18 (Belsyde Avenue East) from Highway 6 (Tower Street South) to Wellington Road 43 (Scotland Avenue)</b>	<ul style="list-style-type: none"> <li>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</li> <li>Several schools (one elementary, one secondary) along the corridor.</li> </ul>	Retain	X	-	X	X	<ul style="list-style-type: none"> <li>Retain the existing posted speed limit (50 km/h)</li> <li>Introduce a 40 km/h when flashing school zone</li> <li>Introduce ASE within the 40 km/h when flashing school zone.</li> </ul>

# Summary of Technical Solutions (6 of 6)

Corridor	Problem Statements	Technical Finding – Posted Speed Limit Review	Potential Mitigation				Summary of Recommendations
			Regulatory Modification	Physical Modification	Education / Enforcement	Do Nothing	
Wellington Road 6 (Sligo Road) from Grey County Limit to Highway 6 (Main Street North)	<ul style="list-style-type: none"> <li>Based on the available data, 85<sup>th</sup> percentile speeds are measured to be well over the posted speed limit of 50 km/h</li> <li>Varying degrees of urbanization along the corridor with levels of urban cross-sections provided along the corridor</li> <li>Rural cross-section of corridor found directly in front of Wellington Heights High School.</li> </ul>	Retain / Increase	X	X	-	-	<ul style="list-style-type: none"> <li>Retain posted speed limit (50 km/h) from Highway 6 east to across from the high school</li> <li>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</li> <li>Urbanize the portion of the corridor in front of the high school</li> <li>Add signage (chevrons, speed advisory signage) at the horizontal curve found near the county line.</li> </ul>
Wellington Road 11 (Wellington Street South) from Wellington Road 8 (Main Street) to Concession Road 8	<ul style="list-style-type: none"> <li>Operating speeds measured above the posted speed limit</li> <li>A long stretch of downhill when travelling north towards downtown Drayton</li> <li>Presence of Drayton Heights Public School along the corridor.</li> </ul>	Retain / Increase	X	X	X	-	<ul style="list-style-type: none"> <li>Adjust the transition point between the existing 50 km/h and 80 km/h zones so it occurs closer to the urban/rural split</li> <li>Replace the existing 40 km/h with a 40 km/h when flashing school zone, thus changing the posted speed limit to 50 km/h</li> <li>Introduce speed display boards facing northbound traffic to the north of Drayton Heights Public School</li> <li>Introduce ASE within the recommended 40 km/h when flashing school zone</li> <li>Consider the need for a PXO at Andrews Drive</li> <li>Modify the road cross-section to “tighten” the travel lanes and road width up.</li> </ul>



# Local Sensitivities

# Local Sensitivities

- Need to be aware of 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 such as the Transportation Association of Canada Guidelines)
  - Potential solutions may need to focus more on physical modifications to align the design of the road with the desired operating speed (such as urbanizing the full limits of the corridor) and/or increasing educational or enforcement measures that encourage conformance to the existing posted speed in the corridor

# Local Sensitivities

- Need to consider and understand the role and function of the County Road network
  - All goods-movement corridors (truck routes)
  - All connect urban areas to rural areas and to other County Roads and Provincial Highways
  - Some County Roads were formerly designated as Provincial Highways.
- Need to ensure locations where posted speed limits transition or where regulatory changes are located are credible and appropriate (i.e., where a change in land use and/or road cross-section occurs, or fronting a school)



# Staff Recommendations

# Staff Recommendations

## Recommended Posted Speed Limits

- Where posted speed limits are being recommended to increase by 10 km/h, ***no changes are being introduced at this time***
- Where posted speed limits are being recommended to decrease (by 10 km/h), these changes will be implemented through by-law revisions
- Where posted speed limits are recommend to increase by up to 20 km/h (segments of Wellington Road 6, Wellington Road 24, Wellington Road 32 and Wellington Road 124), staff will undertake further analysis, monitoring and consulting prior to implementing any posted speed limit changes
- Where posted speed limit transition change locations are recommended to be adjusted, staff will undertake further analysis, monitoring and consulting prior to implementing any changes.

# Staff Recommendations

## Recommended Minor Works

- This would include adjustments to:
  - Existing signage (location of signs, additional warning signs and tabs)
  - New signs (speed radar signs, advisory signs, flashing school zone signs)
- 11 locations were identified where these improvements could be introduced
- Need to have an annual capital budget allocation of **\$50,000** to implement these minor works
- Other improvements would include new pedestrian crossovers (PXOs)
  - Five new locations have been identified
  - These would be cost-shared with the local municipality
- Need to have an annual capital budget allocation of **\$150,000** to provide funding for PXOs on the County Road network

# Staff Recommendations

## Recommended Major Works

- This would include modifications to the physical road environment, and would include:
  - Traffic calming curb extensions
  - Urbanization and modification to the road cross-section, which may include:
    - Sidewalks, Multi-use Pathway (cost share with local municipality)
    - Curb and Gutter
    - Bike Lanes or Paved Shoulders
- These major capital road works would require detailed design. In some cases, would require full road reconstruction

# Discussion

# Thank you