

Speed & Road Safety Review

Oxford Road 20, Delmer

Presentation to Township of South-West Oxford Council

June 1, 2021

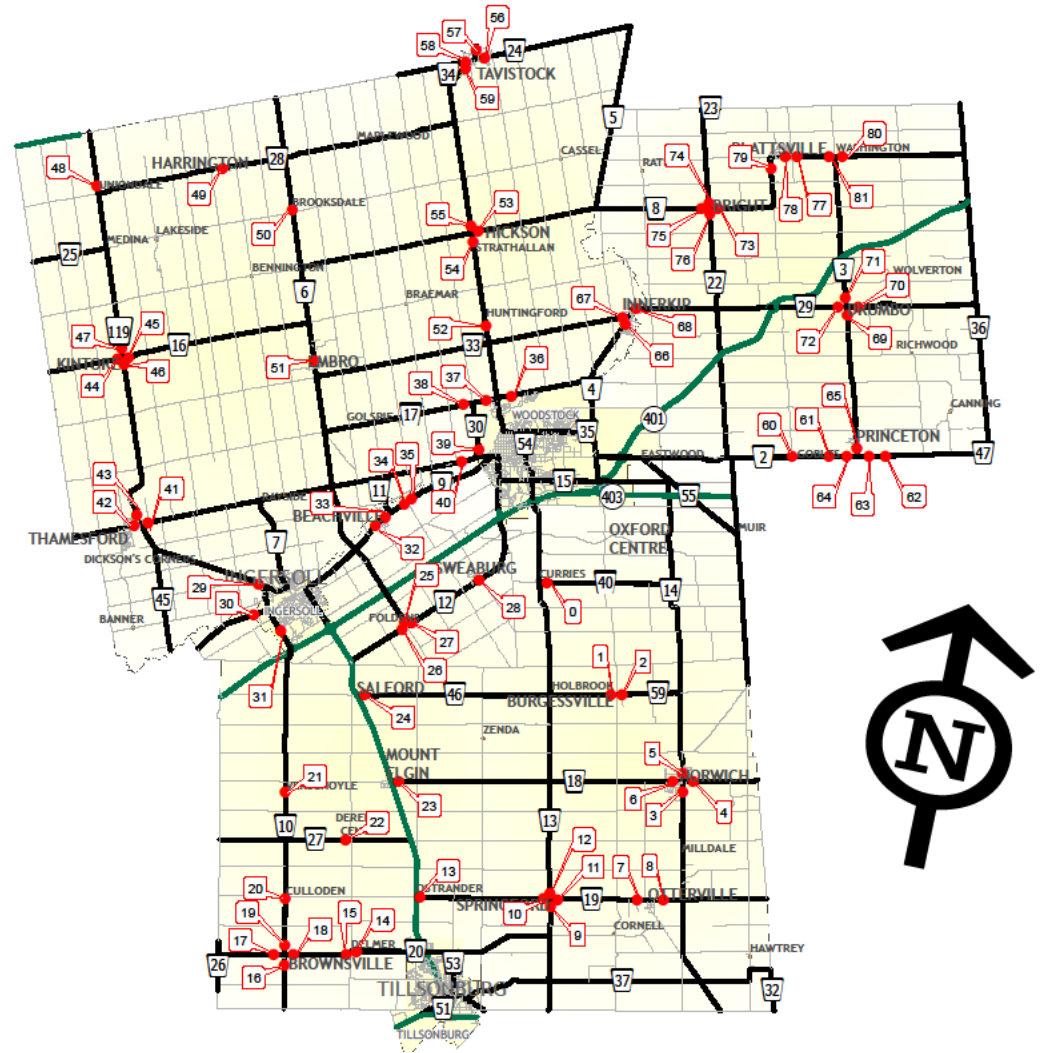
Frank Gross, Oxford County
Manager of Transportation & Waste Management Services

County-wide Traffic Calming Approach

- **Regular/ongoing speed monitoring in communities and settlement areas**
- **Information sharing and collaboration with Police, municipal partners and community**
- **Adoption of posted speeds which are consistent with driving environment**
- **Need and prioritization of traffic calming measures**
- **Consideration of traffic calming measures as part of road design for planned road rehabilitation and land development**
- **Speed monitoring to evaluate effectiveness of traffic calming measures**

Traffic Data Benchmarking

- 24 hr speed counts at over 80 locations in 2019
- reduced speed zones through rural communities, hamlets and built up areas



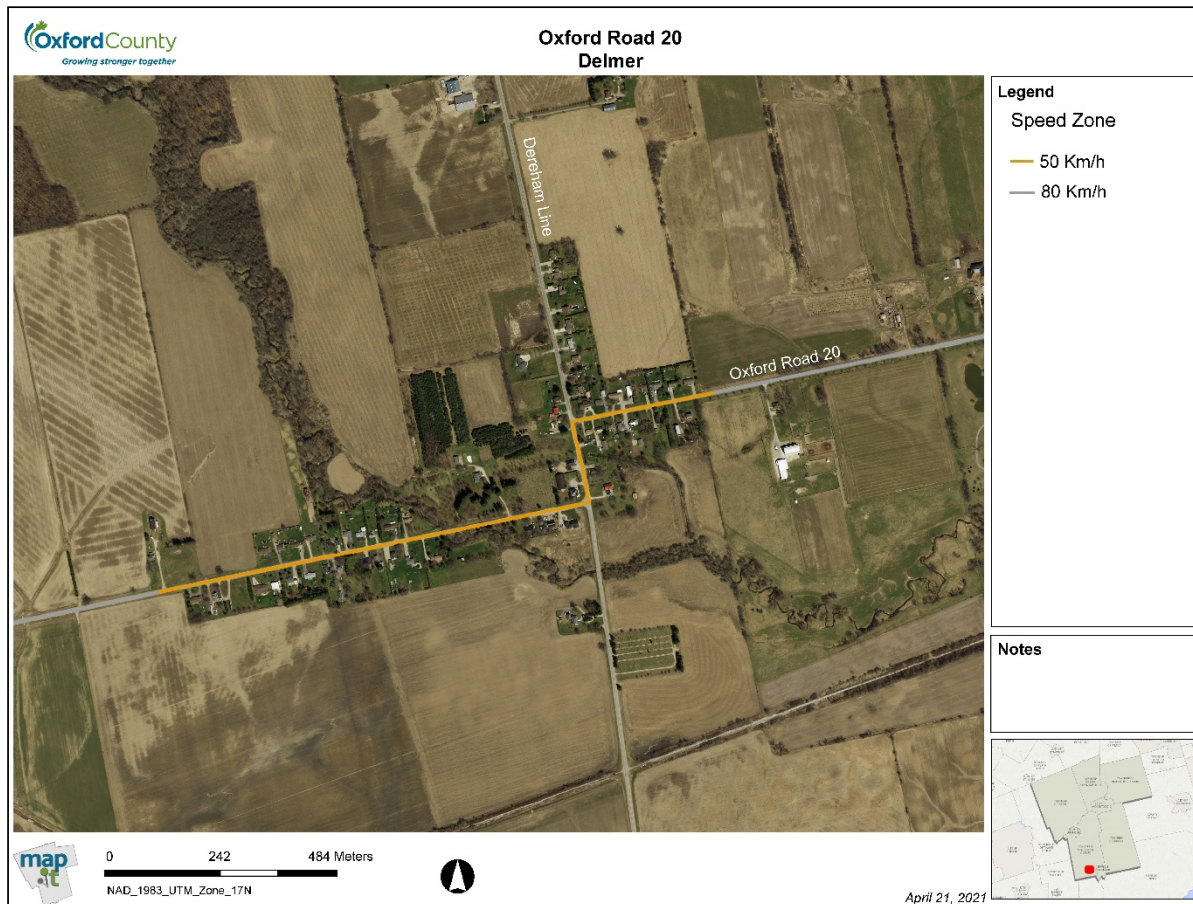
OR 20 Speed and Road Safety Review Work Plan

- Review speed data on OR 20, Delmer
- Review existing driving environment
- Review historical collision records
- Determine appropriate posted speed limit
- Data evaluation and recommendations
- Share results and proposed recommendations with Municipal Representatives and Police
- Evaluate speed management and traffic calming measures, if needed, for implementation

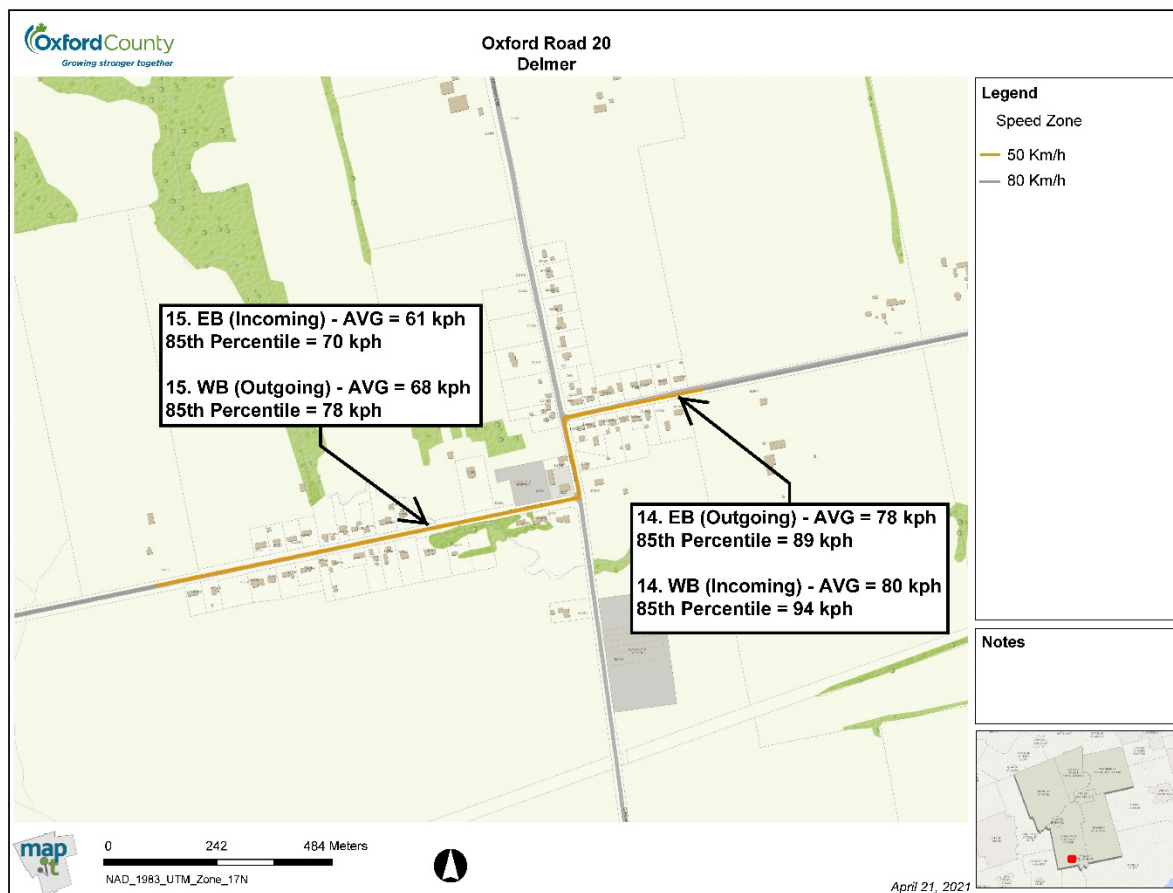
OR 20 Existing Conditions

- **Rural arterial design with single traffic lane per direction**
- **Narrow shoulders (1m wide)**
- **Shoulders vary between paved and unpaved**
- **Eastbound & westbound legs of OR 20 offset by approx. 170m at Dereham Line**
- **No roadway illumination**

OR 20 Speed Zones



Speed Data – OR 20 - Delmer



Collision History OR 20 Study Limits

Year	2013	2014	2015	2016	2017	2018	2019	2020
Property Damage Only	0	0	0	0	1	0	2	0
Non-Fatal Injury	0	0	0	0	0	0	0	0
Fatal Injury	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	2	0
Total Collisions 2013 – 2020: 3								

- **Historical collision data from 2013 to 2020: 3**
 - ▶ 3 total collisions
 - ▶ 0 collisions resulted in non-fatal injuries
 - ▶ 3 collisions resulted in property damage
 - ▶ Avg 0.38 collisions/year
 - ▶ Collision rate = 0.37 collisions/1mil vehicle kms
 - MTO 2010 Avg = 1.7 collisions/1mil vehicle kms
 - ▶ Annual collisions (right angle impacts, turning movements) are below Ontario Traffic Manual warrant for an All Way Stop (Avg. 4 collisions/year over 3 years) at any road intersecting OR 20

Posted Speed Limits OR 20 - Delmer

SEGMENT (east to west)	POSTED SPEED (KM/HR)	TAC RECOMMENDED POSTED SPEED* (KM/HR)	DIFFERENCE (KM/HR)	OXFORD COUNTY RECOMMENDED POSTED SPEED (KM/HR)
430m east and 2.85km east of Dereham Line – Rural	80	80	0	80
430m east of Dereham Line and Dereham Line – (Settlement Area)	50	60	+10	60
Dereham Line and 890m west of Dereham Line – (Settlement Area)	50	60	+10	60
890m west of Dereham Line and 3.38km west of Dereham Line - Rural	80	80	0	80

* TAC Canadian Guideline for Establishing Posted Speed Limits (2009)

Appropriate Posted Speeds

- **Reduces speed variation/differential**
- **Promotes uniform traffic flow**
- **Reduces risk of collisions**
- **Improves enforcement effectiveness**
- **Enhances road safety**

Speed Variation/Differential

- **Collision rate is more directly affected by speed variation then absolute speed**
- **Risk of collision is lower with uniform traffic flow**
- **Posted speeds lower then design/operating speeds result in:**
 - ▶ Tailgating
 - ▶ Impatient Drivers
 - ▶ Passing
 - ▶ Greater collision risk

Establishing Posted Speeds (TAC)

- **TAC Canadian Guideline – 2007**
- **Risk based analysis**
- **Physical and Road-User characteristics**
- **Systematic, consistent approach**
- **Site specific characteristics, engineering judgement**
- **Excludes school zones/playground areas**
- **Local, Provincial policies**

Speed and Road Safety Review Findings

- **50km/hr posted speed in Delmer is below TAC recommended posted speed**
- **Operating speeds are excessive within settlement area**
- **Historical collision data did not show any apparent speed related trends**

Recommendations – Immediate OR 20 - Delmer



Future Considerations OR 20 - Delmer

- **Ongoing Police enforcement and speed data sharing**
- **Automated speed enforcement/CSZ designation**
- **Street lighting**
- **Separated bike lanes**
- **Installation of sidewalks**
- **Community Watch Program (Township)**

Community Safety Zone Designation

- **Highway Traffic Act (HTA)**
 - ▶ permits CSZ designation on part of highway where public safety is of 'special concern'
 - ▶ speed fines can be doubled in CSZs
- **Ontario Traffic Manual (OTM)**
 - ▶ evidence that public safety is of special concern
 - ▶ CSZs not intended for entire length of roadway
 - ▶ number/location of CSZs are critical for successful enforcement

Proposed County-wide CSZ Designation Criteria

- **Areas of special safety concern**
 - Schools, community centres, recreational areas, hospitals, senior centers/residences, high pedestrian volumes
- **Safety risk analysis for areas of special concern**
 - Collision ratio, traffic volumes, pedestrian volumes, operating speeds, % sidewalks, # of entrances/km
- **CSZ designation would support potential implementation of Automated Speed Enforcement (ASE)**
- **County Council approval of proposed CSZ criteria (June 23, 2021)**
- **Delmer may not meet criteria for area of special concern**

Next Steps

- **Report to County Council – July 14, 2021**
 - ▶ Amendment to Speed By-law
- **SWOX Council approval of speed adjustments on Dereham Line**
- **Implementation of immediate measures**
 - ▶ Speed zone adjustments
 - ▶ Installation of speed feedback signs
- **Post Monitoring**

Speed & Road Safety Concerns

THANK YOU