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**EDWARDSBURGH CARDINAL**



GREER GALLOWAY  
CONSULTING ENGINEERS

# Jochem Road Traffic Study

Township of Edwardsburgh Cardinal

# Existing Road Characteristics

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Rural, Hard Surface Roadway

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Average Road Width of Approximately 6.1 m

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Minimal Existing Shoulders

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No Posted Speed Limit

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No Major Horizontal or Vertical Curves

# 7-Day Traffic Study Findings (July 2-8, 2024)

## Average Traffic Volume of 269 Vehicles Per Day

- Peak daily volume of 388 vehicles per day (Thursday). Peak hourly volumes mid-day.

## High Percentage of Heavy Truck Traffic – 40-60%

- Anticipated to be from adjacent quarry on Smith Road
- Not the case everyday, generally specific to weekdays

## Average Vehicle Operating Speed – 60-70 km/h

- Speeds observed were generally consistent with other roadways posted 60 km/h
- Some isolated instances of speeding

# Design Manuals and Recommendations

- The following existing characteristics of Jochem Road were review with the Transportation Association of Canada (TAC) Geometric Design Guidelines for Canadian Roads.
  - Lane width
  - Shoulder Width

# Recommended Lane Width

**Table 4.2.1: Through Lane Widths – Rural Roadways (Design Hour Directional Volume  $\leq 450$ )**

Design Speed (km/h)	Design Domain			
	Practical Lower Limit	Recommended Range		Practical Upper Limit
		Recommended Lower Limit	Recommended Upper Limit	
60 and less	2.7m	3.0m	3.7m	4.0m
70 to 100	3.3m	3.5m	3.7m	4.0m
110 and higher	3.5m	3.5m	3.7m	4.0m

1. Where buses and larger trucks are expected to regularly use a lane, a minimum lane width of 3.3m is recommended regardless of the design speed or traffic volume.

# Recommended Shoulder Width

**Table 4.4.1: Shoulder Widths for Undivided Rural Roads (m)<sup>15</sup>**

Design Speed (km/h)	Designation and Design Hour Directional Volume					
	Rural	Collector			Arterial	
	Local	Design Hour Directional Volume			Design Hour Directional Volume	
		<250	250-450	>450	<450	>450
60	1.0	1.5	2.0	2.5		
70	1.0	1.5	2.0	2.5		
80	1.0	2.0	2.5	2.5	2.5	3.0
90	1.0	2.0	2.5	2.5	2.5	3.0
100	1.0	2.5	2.5	3.0	2.5	3.0
110					2.5	3.0
120					3.0	3.0
130					3.0	3.0

# Overview of Recommendations

- The existing road platform, along with the heavy truck traffic, is likely causing discomfort for other road users – both pedestrians and other drivers.
- During future reconstruction, it is recommended to widen road platform to provide 3.3 m lanes.
- If space permits, include 1.0 m shoulders in reconstruction plans.
- Future reconstruction should include two lifts of asphalt, as surface treatment is susceptible to damage from heavy vehicles.

# Questions and Report Discussion

