

Road Safety Review on Municipal Road 80 in McCrea Heights

Presented To:	Operations Committee
Meeting Date:	November 14, 2023
Type:	Correspondence for Information Only
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Report Summary

This report provides information regarding a road safety review on Municipal Road 80 in McCrea Heights.

Relationship to the Strategic Plan, Health Impact Assessment and Community Energy & Emissions Plan (CEEP)

This report refers to initiatives that support goal 6.1 - Advance Population Health of the Strategic Plan by further advancing the Healthy Streets goal by improving road safety for all users.

Financial Implications

The funding for automated speed enforcement has been previously approved and is funded through the operating budget.

Background

On August 14th, 2023, Operations Committee resolution OP2023-26 was passed stating:

WHEREAS the community of Valley East has been realizing growth and an increase in population in recent years and this trend is expected to continue;

AND WHEREAS the increase in population has led to an increase in traffic on Municipal Road 80; AND WHEREAS residents of the community of McCrea Heights are finding it increasingly difficult to access Municipal Road 80 with their vehicles between Simon Street and Robin Avenue, more so at peak traffic times; AND WHEREAS there is no safe pedestrian crossing along this stretch of Municipal Road 80 for area residents;

AND WHEREAS the City of Greater Sudbury had previously made road safety improvements in the McCrea Heights area through the installation of a two-way centre left turn lane and a pedestrian refuge island and area residents are seeking enhancements;

THEREFORE BE IT RESOLVED that the City of Greater Sudbury directs staff to conduct a traffic study of Municipal Road 80 in the McCrea Heights area, and to present the results of that study, together with recommendations to create safe ingress and egress for vehicles between Simon Street and Robin Avenue, as well as safe pedestrian crossing options, to the November 2023 Operations Committee meeting;

AND BE IT FURTHER RESOLVED that any recommendations outlined in the report include the costs associated with those options, so that any approved recommendation(s) can then be presented during the 2024-2025 budget deliberations.

Municipal Road 80 (MR 80) is a five-lane arterial road, consisting of two lanes in each direction, with a two-way left-turn lane. The study area is focused on the segment of Municipal Road 80 that encompasses McCrea Heights, with particular emphasis on the area between Robin Avenue and Simon Street as seen in Figure 1 below. The speed limit of Municipal Road 80 in this area is 60 km/h.

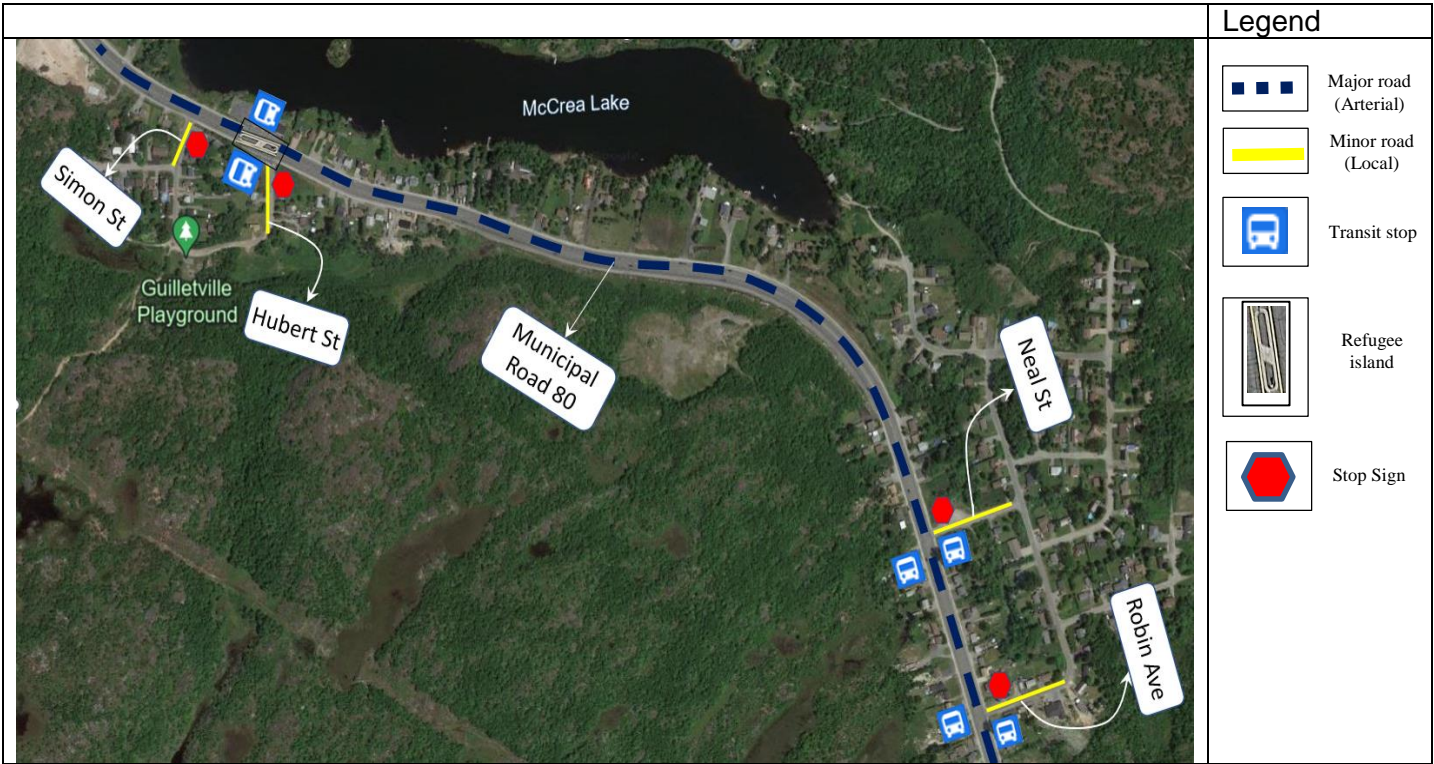


Figure 1. Detailed map of the McCrea Heights from Robin Avenue to Simon Street

Within the study area are four T-intersections at Robin Avenue, Neal Street, Hubert Street, and Simon Street with all minor streets having a stop sign. As indicated in Figure 1, transit stops are situated at Robin Avenue, Neal Street, and Hubert Street. Additionally, a refuge island is located at the midblock near the intersection of Municipal Road 80 and Hubert Street as shown in Figure 2 below.



Figure 2. The refuge island at the midblock near the intersection of Municipal Road 80 and Hubert Street.

Analysis

Traffic Signal Assessment

When reviewing an intersection for traffic signals, staff use the traffic signal warrants set out in Book 12 of the Ontario Traffic Manual (OTM). These provincial guidelines look at vehicle volume, pedestrian volume and the collision history at the intersection to determine when it is recommended to install traffic signals at an intersection.

Transportation and Innovation Support staff conducted eight hour turning movements counts on September 13th, 2023, and October 11th, 2023, at each intersection in the study area and applied the results to the traffic signal warrant (Appendix A). The results show that the intersections in the study area only meet between 4% and 17% the volume requirements to install traffic signals:

- Municipal Road 80 at Robin Avenue: 7%
- Municipal Road 80 at Neal Street: 17%
- Municipal Road 80 at Hubert Street: 4%
- Municipal Road 80 at Simon Street: 4%

Staff also reviewed the collision history for all the intersections from 2020 to 2022. Although no collisions are desirable, the collision justification in the traffic signal warrant requires there to have been 15 or more collisions over a three year period that could be prevented by installing traffic signals. Only one collision occurred at both Municipal Road 80 at Simon Street and Municipal Road 80 at Neal Street during that time period that could have been prevented if traffic signals were present at the intersection. The other two intersections in the study area did not have any collisions that could have been prevented if traffic signals were present.

Based on the recorded traffic volumes and collision history, traffic signals are not warranted at any of the four intersections in the study area.

Pedestrian Crossover (PXO) Assessment

A Pedestrian Crossover (PXO) is defined in the HTA as “any portion of a roadway, designated by by-law of a municipality, at an intersection or elsewhere, distinctly indicated for pedestrian crossing by signs on the highway and lines or other markings on the surface of the roadway as prescribed by the regulations. Drivers are required to yield the right-of-way when a pedestrian is at a designated crossing and has the intent to cross the road.”

OTM Book 15 includes a warrant for assessing requests to install a PXO. In May 2016, a comprehensive report entitled “Pedestrian Crossover Facilities” was presented to the Operations Committee which describes the process of this decision support tool. A location qualifies for a PXO when there are at least 100 pedestrians observed crossing over an 8 hour period. When children or senior citizens are counted that total is multiplied by a factor of two. If a location qualifies then the type of PXO is selected based on the volume (AADT), posted speed limit and number of lanes.

To complete the warrant, staff captures pedestrian activity for a 16 hour period (6 AM to 10 PM) and analyzes the data to determine the 8 hours with the highest pedestrian volumes. The results from the analysis at the four intersections in the study area show that no locations meet the required threshold of 100 pedestrians to support the installation of a PXO as shown in Table 1 below.

Intersection	Pedestrian Volume (8 highest hours)
Municipal Road 80 at Robin Avenue	1
Municipal Road 80 at Neal Street	8
Municipal Road 80 at Hubert Street	11
Municipal Road 80 at Simon Street	3

Table 1: 8 hour pedestrian volumes at each intersection in the study area

Furthermore, City staff gathered the bus stop ridership for all the above intersections during the extended period from January 1st, 2023, to October 11th, 2023, in collaboration with GOVA Transit. The total number of transit users entering and exiting the bus is shown at each transit stop in Table 2 below.

Transit Stop	Total Transit Riders Entering Bus	Total Transit Riders Exiting Bus	Average Daily Ridership
Robin Avenue (2670)	115	761	2
Robin Avenue (2675)	748	88	3
Neal Street (2680)	127	510	2
Neal Street (2685)	419	172	2
Hubert Street (2690)	49	501	2
Hubert Street (2695)	997	201	4

The primary objective of this analysis is to thoroughly examine potential pedestrian crossing movements within the study area over an extended timeframe. According to the data, 16 people use the bus stops on a daily basis at the intersections in the study area. The transit ridership is generally consistent with pedestrian volumes. Where the transit ridership and pedestrian volumes differ there isn't a significant enough difference that a PXO would become warranted.

Automated Speed Enforcement and Police Enforcement:

The increased enforcement of speed limits is an effective strategy for discouraging aggressive driving behaviors and ensuring compliance with traffic regulations. One proven method is Automated Speed Enforcement (ASE). During the June 2022 Operations Committee meeting, a two-stage warrant process for the assessment and prioritization of ASE deployment locations was presented and subsequently approved. The warrant was applied to various road segments and the locations have been prioritized. Municipal Road 80 between Robin Avenue and Hubert Street has been evaluated and is currently ranked 8th on the 2023 Automated Speed Enforcement Ranking. Based on the current ranking the deployment of ASE equipment is scheduled for the March or April 2024.

Deploying ASE at this location is anticipated to significantly enhance speed limit enforcement and will contribute to a more compliant traffic flow along this major road, ultimately leading to increased safety and improving the ease of access to and from minor roads. Through the warrant process staff conducted speed studies in the subject area where the 85th percentile speed was 84 km/h. The results of the speed studies will be forwarded to Greater Sudbury Police Services to facilitate more targeted police enforcement.

Next Steps

In advance of the ASE equipment installation in March or April 2024, the signage indicating that automated speed enforcement cameras are coming will be installed in early December 2023. These signs are required to be installed 90 days in advance of the deployment of ASE equipment. Based on the findings of the road safety review, no business case will be submitted at this time as the ASE equipment has already been approved for deployment in this area.

Resources Cited

Ontario Transportation Manual Book 12, Traffic Signals, 2012.

Operation Committee Report dated May 14th, 2012, titled "Traffic Control Signals":
<https://pub-greatersudbury.escribemeetings.com/filestream.ashx?documentid=21018>

Ontario Transportation Manual Book 15, Pedestrian Crossing Facilities, 2016.

Operation Committee Report dated May 16th, 2016, titled "Pedestrian Crossover Facilities":
<https://pub-greatersudbury.escribemeetings.com/FileStream.ashx?DocumentId=32489>

Operation Committee Report dated June 20th, 2022, titled "Automated Speed Enforcement Program Update":
<https://pub-greatersudbury.escribemeetings.com/filestream.ashx?DocumentId=46620>