



Committee of the Whole Report

Report Number: ENG2023-001
Meeting Date: January 10, 2023
Title: Request for Crosswalk on Various Roads
Description: Request for Crosswalks
Author and Title: Joseph Kelly, Traffic Management Supervisor

Recommendation(s):

That Report ENG2023-001 **Request for Crosswalk on Various Roads** be received;
and

That this recommendation be brought forward to Council for consideration at the next
Regular Council Meeting.

Department Head: _____

Financial/Legal/HR/Other: _____

Chief Administrative Officer: _____

Background:

At the Special Council meeting of November 30, 2021, Council adopted the following resolutions:

CR2021-583

That the creation of a crosswalk at St. Joseph Street and Angeline Street North, Lindsay, be referred to Staff for a warrant and design review; and

That Staff report back by the end of Q2, 2022.

CR2021-584

That the creation of a crosswalk at the Simcoe Street and Edward Street, Manilla, be referred to Staff for a warrant and design review; and

That Staff report back by the end of Q2, 2022.

CR2021-585

That the creation of a crosswalk at Chadwin Drive and Angeline Street North, Lindsay, be referred to Staff for a warrant and design review; and

That Staff report back by the end of Q2, 2022.

This report addresses those directions. In addition, staff has received multiple requests from residents and Ward 7 Councillor to perform a similar warrant and design review for the intersection of Angeline Street South and Sweetnum Drive. Maps can be seen in Appendix A.

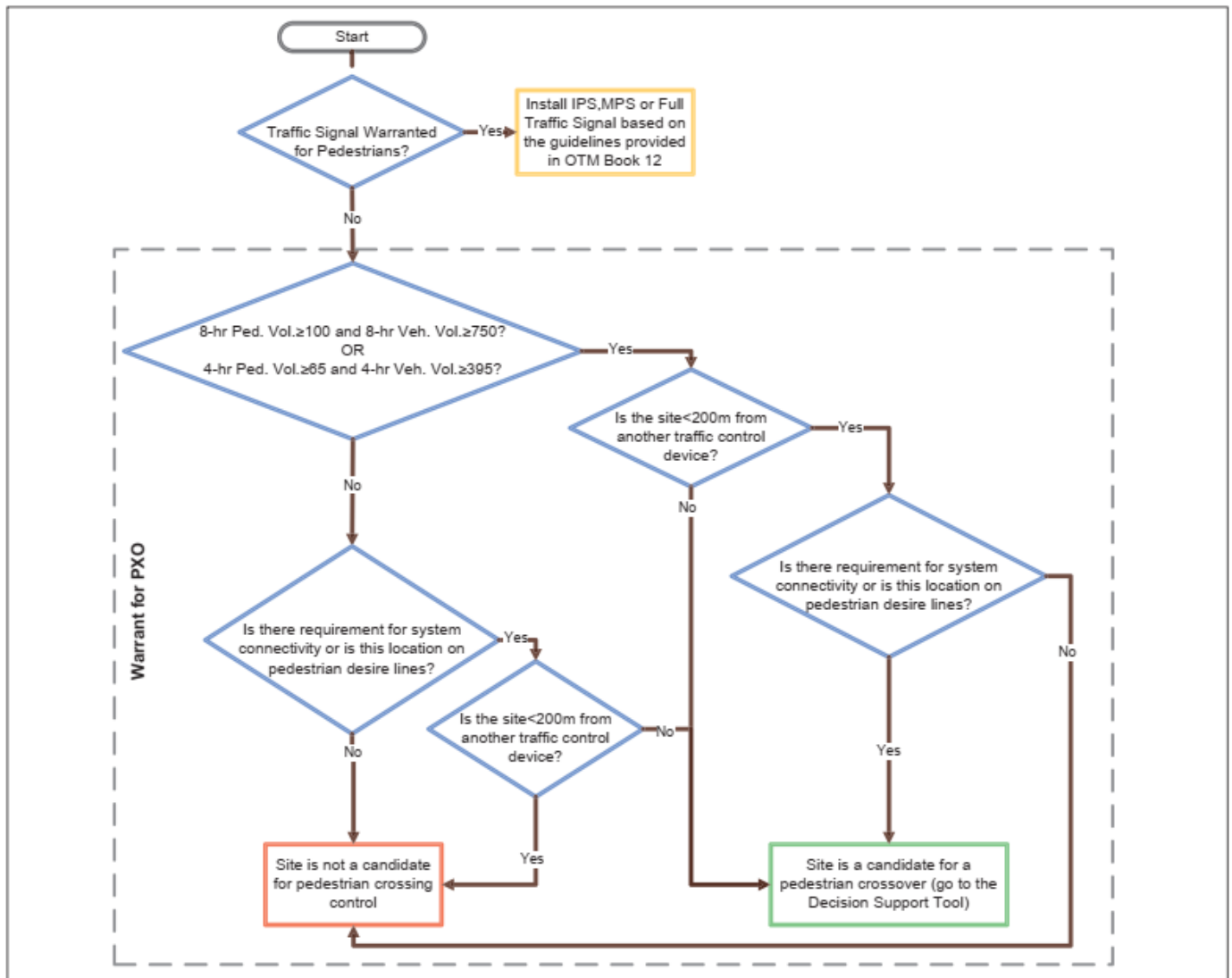
Rationale:

The Ontario Traffic Manual (OTM) Book 15 – Pedestrian Crossing Treatments provides methodology for pedestrian crossing justification and treatment system selection/design for modern pedestrian crossings. Justifications begin with a preliminary assessment. Figure 1 shows the Decision Support Tool for the preliminary assessment.

It specifies that to start, it should be determined if a traffic signal (mid-block, intersection, or full-set) is warranted using Traffic Signal Justification 6 – Pedestrian Volume and Delay from OTM Book 12 – Traffic Signals. If a traffic signal is not justified, a pedestrian crossing would be considered warranted when one of the following conditions are met:

- 1) Eight-hour pedestrian volume is greater than 100 AND eight-hour vehicle volume is over 755; OR
- 2) Four-hour pedestrian volume is great than 65 AND four-hour vehicle volume is over 395; OR
- 3) There is a requirement for system connectivity/the location is on pedestrian desire lines (defined below).

Figure 1: Decision Support Tool – Preliminary Assessment, OTM Book 15



Pedestrian System Connectivity

Facilitating connectivity between crosswalks and sidewalks, and/or trail networks involves understanding and monitoring pedestrian desire lines, which evolve as a function of land use, the location of pedestrian generators and attractors, and proximity to existing crossing facilities. Providing proper connectivity between origins and destinations provide pedestrians with simple and convenient access to facilities with the shortest possible deviation (Ontario Traffic Council, 2016)

Should the location pass the preliminary assessment, OTM Book 15 provides a Pedestrian Crossover Selection Matrix to help determine the type of crossing treatment that is most appropriate for the location (Appendix B). The complexity of the recommended crossing treatment is related to the complexity of the location determined by the speed limit, road width, and vehicular volumes. Treatments vary in use of regulatory and warning signs (with or without overhead mounted crossover signs and rapid rectangular flashing beacons), and pavement markings.

None of the locations proposed for a crossing would outright meet the requirements due to low pedestrian volumes. However, the purpose of determining connectivity and pedestrian desire lines allows Municipalities to continue to use the design guide for locations the Municipality deems functionally necessary. Table 1 summarizes the warrant and design requirements as it relates to the requested locations. Appendix C contains design examples for each type of crossing.

Table 1 – Crossing Warrant Results and Design Criteria

Road	Location	Meets Ped Volume Criteria	Connectivity or Ped Desire Lines	8 Hour Vehicular Volume*	Speed limit	Lanes	Crossing Type Design Criteria
Angeline St N	@ St Joseph St	No	Possibly	7283	<= 50 km/hr	2 with parking	Level 2 Type B
Angeline St N	@ Chadwin Dr	No	Possibly	6444	<= 50 km/hr	Future 5 lane	Level 2 Type C with raised refuge island
Angeline St S	@ Sweetnam Dr	No	Yes (trail, college, and rec complex)	5327	<= 50 km/hr	3	Level 2 Type B
Simcoe St	Near community park in Manilla	No	Possibly	4343	<= 50 km/hr	2 with parking	Level 2 Type D (or Type C due to operating speeds)

*8 Hour volume determined by using 60% of AADT from Road Needs 2021

Angeline Street North at St Joseph Street

There is significant development occurring that could change the pedestrian and vehicular volumes /turning movements at this intersection. A traffic signal could be justified after full build-out. It is recommended that current and future development as it pertains to this intersection be included for study in the next Transportation Master Plan (TMP). Drafting of the RFP for the TMP is ongoing.

Angeline Street North at Chadwin Drive

Angeline Street North between Kent Street West and Colborne Street West is currently in the Municipal Class Environmental Assessment (MCEA) phase for reconstruction. It would be premature to determine a crossing type before final design of the reconstruction is settled. There may also be a future need for a crossing between the in-construction Community Care facility and the hospital. The ongoing MCEA process can help determine location selection to serve both Chadwin Dr and the hospital along with design considerations such as a raised refuge island.

Angeline Street North at Sweetnam Drive

Sweetnam Drive, McGibbon Boulevard and associated roads within those areas are an attractive location for student apartments. As such, the crossing demands at this intersection varies by season and year to year. Pedestrian generators such as the college, recreation centre, and trail make a strong case for the connectivity justification.

Simcoe Street – Manilla

Residents in Manilla have expressed frustration that they are required to walk north to the traffic lights on Highway 7 to cross, then back south to access the community park located in the Durham Region. They do not feel safe crossing Simcoe Street. Entrances to the park are off of Brock St 130m south of the traffic signals and off of Simcoe St 200m south of the signals. A crossing at Edward Street would not meet the required setback from existing traffic controls. A crossing midblock at the Simcoe Street entrance just meets the requirement, however it is difficult to predict the amount of usage a crossing here would get if constructed.

The speed limit here has recently been reduced to 40 km/hr, which is being supported by the periodic installation of a temporary speed board. It would be appropriate to further support the speed limit change for some time before considering the installation of a sub-optimal crossing. This can be achieved by the continued placement of temporary speed boards or by installing a permanent speed board.

As a result of the justification review carried out by staff, it is recommended that the results of the next Transportation Master Plan and relevant MCEA's be reviewed before implementing crossings on Angeline Street North. It is recommended that Simcoe Street in Manilla continues to receive support for the new speed limit via the use of a temporary or permanent speed board. The design and construction of a crossing at Angeline Street North and Sweetnam Drive can be included for considered in the 2024 budget submission.

Other Alternatives Considered:

N/A

Alignment to Strategic Priorities

Providing life safety and protection, is a priority objective of the City under the Council Adopted Strategic Plan Goal of An Exceptional Quality of Life.

Financial/Operation Impacts:

Consultations:

Attachments:

Appendix A – Key Maps



Foxit PhantomPDF
PDF Document

Appendix B – Pedestrian Crossover Selection Matrix



Foxit PhantomPDF
PDF Document

Appendix C – Design Criteria by Crossing Type



Foxit PhantomPDF
PDF Document

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Department File: Engineering