

Staff Report



To	General Committee
Subject	Review of Controlled Crosswalk at Codrington Street and Rodney Street
Date	October 29, 2025
Ward	1
From	M. Banfield, RPP, Executive Director of Development Services
Executive Member Approval	M. Banfield, RPP, Executive Director of Development Services
CAO Approval	M. Prowse, Chief Administrative Officer
Staff Report #	DEV040-25

Recommendation(s):

1. That a Pedestrian Crossover (PXO) Level 2 Type D be installed on the west leg of Codrington Street and Rodney Street.
 2. That the existing designated school crossing be removed.
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Executive Summary:

The purpose of this report is to provide members of Council with a response to council motion 23-G-224 – Investigation – All-Way Stop or other Pedestrian Safety Measures at the intersection of Codrington Street and Rodney Street. This motion requested that the Development Services department investigate the feasibility of an all-way stop or other pedestrian safety measures at the intersection of Codrington Street and Rodney Street and report back to General Committee.

Key Findings:

The volume of pedestrian traffic observed crossing Codrington Street meets the minimum criteria for the installation of a Pedestrian Crossover (PXO). In addition to the high pedestrian volume, this location has been identified by staff as a key point for improved pedestrian connectivity due to the proximity of Codrington Public School.

Staff recommend removing the existing uncontrolled designated school crosswalk at the west leg of Codrington Street and Rodney Street and installing a controlled crosswalk in the form of a PXO Level 2 Type D. Staff use the Ontario Traffic Manual (OTM) Book 15 – Pedestrian Crossing Treatments to determine the appropriate treatment

for Codrington Street.

Financial Implications:

The estimated cost of a PXO Level 2 Type D at the Codrington Street and Rodney Street intersection is \$2,000 and can be funded by the 2025 operating budget.

Alternatives:

The following alternatives are available for consideration by General Committee:

Alternative #1 – General Committee could maintain the existing designated school crossing at Codrington Street and Rodney Street (i.e. Status Quo).

This alternative is not recommended as the PXO Level 2 Type D is warranted and provides an increased level of pedestrian safety over the current designated school crossing.

Alternative #2 – General Committee could install an All-Way Stop at Codrington and Rodney Street.

This alternative is not recommended, as the All-Way Stop is unwarranted and may result in low driver compliance, leading to potential operational and safety concerns. Furthermore, implementation of an All-Way Stop would result in the removal of the proposed PXO due to operational incompatibility between the two control types.

Strategic Plan Alignment:

Affordable Place to Live		
Community Safety	X	The recommendation of installing a controlled crossing in the form of a PXO Level 2 Type D on the west leg of Codrington Street and Rodney Street will provide connectivity and improve safety for pedestrians by providing a controlled crossing where motorists are required to stop by law. This prioritizes Council's goal of creating safer streets.
Thriving Community		
Infrastructure Investments		
Responsible Governance		

Additional Background Information and Analysis:

The PXO was originally planned to be installed alongside the Codrington Street reconstruction. Due to the project being delayed to 2027 staff are proposing to proceed with the installation of the PXO now.

Codrington Street is an 8.5-metre-wide Local Road. There are sidewalks on both sides of Codrington Street. A posted Community Safety Zone with a 40 km/h speed limit runs from 172 metres west of St. Vincent Street to 10 metres east of Cook Street.

The Average Annual Daily Traffic on Codrington Street is approximately 1,400 vehicles.

Located on the south side of Codrington Street is Codrington Public School, a large green space and recreational fields/courts. These are all considered high pedestrian generators. Please refer to Appendix A for a map of the study area.

The Highway Traffic Act (HTA) identifies the rights and responsibilities of pedestrians and motorists at different forms of pedestrian crossings and provides the rules of the road. There are two distinct categories of pedestrian crossings:

- a) Controlled Crossing – Where vehicles are required to stop or yield to traffic legally in the crossing which includes pedestrians, or
- b) Uncontrolled Crossing – Where pedestrians must wait for a safe gap in traffic, sufficient for them to cross the road prior to entering.

The existing designated school crosswalk for north/south (west leg) at Codrington Street and Rodney Street is an uncontrolled crossing. The HTA identifies designated school crosswalks as uncontrolled crossings unless there is an adult school crossing guard present to supervise the crossing.

Staff utilized OTM Book 15 – Pedestrian Crossing Treatments to provide information and guidance for uniformity treatment design of traffic control devices in Ontario. The Decision Support Tool was used to determine whether a PXO is warranted. The following criteria should be met for a site to be a candidate for a PXO.

- a) 4-hour pedestrian volume ≥ 65 pedestrians with a vehicle volume ≥ 395 vehicles; and
- b) The site is located $>200\text{m}$ from another traffic control device or there are requirements for connectivity or pedestrian desire lines.

4-hour pedestrian counts were completed on Tuesday, September 9, 2025, at Codrington Street and Rodney Street. The results of the pedestrian volume are shown in the following chart.

Decision Support Tool - Preliminary Assessment			
Requirements		Data	Criteria Met
Pedestrian Volume (4 Hours)	≥ 65 Pedestrians	105	✓
Vehicle Volume (8 Hours)	≥ 395 Vehicles	452	✓
Distance from Traffic Control Device	$>200\text{m}$	200m	✓
Connectivity or Desire Lines	Yes/No	School/Park	✓

Staff have analyzed the 4-hour pedestrian and vehicle volume on Codrington Street. In the total 4 hours, there were 105 pedestrians crossing north/south and 452 vehicles travelling east/west through the study area. The 4-hour analysis periods were selected to coincide with the arrival and dismissal times associated with Codrington Public School.

Location	Lower Limit 8-Hours	Upper Limit 8-Hours	Posted Speed Limit	Number of Lanes	Recommended Device
Codrington Street and Rodney Street	750	2,250	≤50	2	Level 2 Type D

All-Way Stop Analysis

The OTM warrant is based on volume, collision history, and stopping sight distance at the intersection. There are three classes of warrant identified in the OTM. Each class is based on the classification of roadways:

- Urban Arterial Roads
- Collector Roads and Rural Arterial Roads
- Local Roads

Based on the classification of Local Road on both Codrington Street and Rodney Street, the Local Roads warrant is used. Below are the components of the warrant. Each part can satisfy the warrant independently.

1. Minimum Volume Warrant

- The total vehicle volume on all approaches exceeds 200 vehicles per hour for each of the highest four hours of the day.
- The combined vehicle and pedestrian volume on the minor street exceed 75 units per hour for the same four hours.
- The volume split does not exceed 70/25. The minor street must not be less than 30% of the total volume entering the intersection.

2. Collision Warrant – Reviews high collision frequency. Only right angle and turning movement collisions that are reported to Barrie Police Services are considered. The threshold for a high collision frequency for local roads is three collisions per year over three years.

3. Visibility Warrant – The distance requested for a driver to see ahead to stop if necessary. If all efforts have been exhausted and stopping sight distance cannot be brought up to guidelines, conversion of the intersection to an All-Way Stop may be considered.

An 8-hour Turning Movement Count was completed as part of the annual traffic count contract at Codrington Street and Rodney Street for the purpose of completing an All-Way Stop warrant. The results of the warrant analysis are summarized below.

Description	All-Way Warrant	Recorded Data	Satisfied All-Way Warrant	
			Yes	No
Part 1a – Total Volume Total vehicle volume on all approaches	Greater than 200 vehicles per hour for each of the highest 4 hours of the day	88 Vehicles (7:00-8:00) 146 Vehicles (8:00-9:00) 173 Vehicles (16:00-17:00) 115 Vehicles (17:00-18:00)		X
Part 1b – Minor Street Volume Combined vehicle and pedestrian volume on (Minor Street)	75 units per hour wishing to enter the intersection for each of the same 4 hours as the total volume	20 Units (7:00-8:00) 12 Units (8:00-9:00) 25 Units (16:00-17:00) 20 Units (17:00-18:00)		
Part 1c – Volume Split Minor Street must not be less than 30% of the total volume entering the intersection	Volume split does not exceed 70%/30% at the intersection (Minor Street must not be less than 30% of the total volume entering the intersection). Measured over the entire 4 hours.	87%/13% Volume Split		
Part 2 – Collision Intersection Collision Frequency	3 collisions per year over three years (*example* 9 collisions in 36 months)	0 reported collisions over a 3-year period		X
Part 3 – Visibility Stopping Sight Distance from (Minor Street)	Less than 85m	No restrictions		X

The warrant analysis for installing an All-Way Stop at the intersection of Codrington Street and Rodney Street shows no criteria have been met. Part 1a, which requires a total vehicle volume of at least 200 vehicles per hour over highest four hours, is not satisfied, with volumes consistently below the threshold. Part 1b was not met as the minor street volume falls below the required 75 units per hour for the same four hours.

Part 1c, the major street has 87% of the total volume and the minor street has 13%. Due to the volume split being over the threshold, an All-Way Stop criteria is not met.

Part 2, relating to collision history, is not met, as no collisions were reported in the past three years.

Part 3, concerning visibility and stopping sight distances, is not warranted, as there are no sightline restrictions on Codrington Street and Rodney Street.

Staff do not recommend the installation of an All-Way Stop at Codrington Street and Rodney Street. Based on the warrant criteria outlined in the OTM, this location does not meet the minimum warrant for volume, collisions or visibility.

Environmental and Climate Change Impact Matters:

There are no environmental and/or climate change impact matters related to the recommendation.

Appendix:

Appendix A – Pedestrian Crossing Study Area

Report Author:

A. Purcell, Senior Transportation Operations Technologist, Development Services

File #:

Not Applicable

Pending #:

Not Applicable

Appendix A – Pedestrian Crossing Study Area

