

Appendix “C”



POLICY MANUAL

POLICY NUMBER: PUBLIC WORKS-010

SUBJECT: PEDESTRIAN PRIORITY SIGNALS (PPS)

**POLICY STATEMENT:
(Purpose/Objective)**

To provide guidelines in setting warrants to determine the need for a Pedestrian Priority Signal (PPS) which take in the following criteria:

- Pedestrian volumes
- Pedestrian classification
- Pedestrian crossing distance
- Traffic volumes, and
- Collision history

RELATED POLICY PROCEDURES/GUIDELINES:

Criteria (or warrants) similar to all-way stop and traffic signals have been developed to use as a guide for justifying the installation of a PPS.

PPS may also be referred to as Intersection Pedestrian Signals (IPS) or Mid-block Pedestrian Signals (MPS).

Pedestrian Traffic

The number of pedestrians crossing at or near the study location during the eight (8) hour count period are to be inventoried. However, unlike traffic signal warrants, the pedestrians must be classified into categories of children, adults and seniors for PPS warrants. A weighting factor of 2.0 is applied to children and

seniors in order to equate the walking speed and perception/reaction time to those of children and adults. The points are awarded based on the following criteria:

Over 8 hour study period	
0 to 59 pedestrians	0 points
60 to 79 pedestrians	5 points
80 to 99 pedestrians	10 points
100 to 119 pedestrians	20 points
120 to 139 pedestrians	30 points
140 to 159 pedestrians	40 points
Over 160 pedestrians	50 points

Traffic Volumes

Similar to the traffic signal warrant, the volume of traffic on the main street must be counted. However, for a PPS the volume of the side street traffic has no impact on the warrant value. The points for this section are determined as follows:

Average vehicles per hour over the (8) hour study period	
0 to 499 vehicles per hour	0 points
500 to 719 vehicles per hour	5 points
720 to 899 vehicles per hour	10 points
900 to 949 vehicles per hour	15 points
950 to 999 vehicles per hour	20 points
More than 1,000 vehicles per hour	25 points

Collision History

The history of collisions at each location is considered over the previous 60 month period. As with traffic signal warrants, only those collisions that would have potentially been avoided had a PPS been installed shall be considered. This means that only collisions that involved pedestrians or cyclists crossing the major street will be included. This section carries the majority of the weighting for the warrant due to the potential for personal injury. Point values for collision occurrences are awarded as follows:

Collision occurrences for the previous 60 month period	
0 collisions	0 points
1 collision	15 points
2 collisions	30 points

3 collisions	45 points
4 collisions	60 points
5 or more collisions	75 points

Distance to Nearest Protected Crossing

This warrant is straight forward, as it is the distance from the proposed PPS to the nearest protected crossing for pedestrians. Protected crossing for the purpose of this section would include (but not limited to) traffic signals, all-way stop, or pedestrian crossover (PXO) locations. Point values for this section are awarded as follows:

0 to 149 metres	0 points
150 to 399 metres	20 points
400 to 750 metres	30 points
Over 750 metres	40 points

Major Street Operating Speed

The major street operating speed must be in a range that would be considered acceptable on the main street and would allow a vehicle to stop within a reasonable distance after observing the traffic signal changing. The operating speed would be determined by field studies utilizing road tubes, traffic counters, or radar device. The points awarded for this criteria are:

Under 45 km/h	0 points
46 - 55 km/h	5 points
56 – 65 km/h	10 points
Over 65 km/h	15 points

Major Street Crossing Distance

A PPS operates ideally when the crossing is 4 or 5 lanes wide. A street of less than four (4) lanes would not require additional devices such as PPS to aid in crossing. A street containing more than five (5) lanes would be difficult for children or seniors to cross due to the walking distance, the location of the pedestrian signal head (for those with sight impairment), and potential turning conflicts with vehicular traffic. The number of lanes includes through lanes, turning lanes, and parking lanes within the street width. The point value allotted to this criteria is as follows:

Less than 4 lanes	0 points
4 or 5 lanes	10 points
More than 5 lanes	0 points

Traffic Studies

Because the PPS is pedestrian dependent, studies for warrants should be completed during the times of the year that have the highest pedestrian volume and in weather that is conducive to pedestrian travel. Therefore, field studies should be limited to the months from September to November and March to June, and on days where the weather conditions do not hamper pedestrian travel.

Delegation of Authority to the General Manager of Public Works

When a pedestrian signal is warranted, the General Manager of Public Works or their designate is delegated to approve Pedestrian Signals and present the by-law to amend Traffic by-law 37-83 Schedule "3" pertaining to "Traffic Control Signals" to City Council for approval.

<p>Date of Enactment: October 6, 1999</p>	<p>Related By-law Number/Staff Report Number: 70-2010 (consolidation) 246-2021 / 2021-403</p>
<p>Review and Amendment Dates: 2009 (Review) June 2010 (consolidation) December 21, 2021</p>	<p>Department Responsible for Review: Public Works</p>
<p>Date of Next Review:</p>	<p>Applicable Legislation/Legislative Authority:</p>