

Installation of Traffic Control Signals: Kipling Avenue and Mattice Avenue/Road (Markland-Centennial, Kingsway-Humber)

(City Council at its regular meeting held on October 3, 4 and 5, 2000, and its Special Meetings held on October 6, 2000, October 10 and 11, 2000, and October 12, 2000, adopted this Clause, without amendment.)

The Works Committee recommends the adoption of the following report (August 1, 2000) from the Commissioner of Works and Emergency Services:

Purpose:

To review the proposed installation of traffic control signals on Kipling Avenue at the intersection of Mattice Avenue/Road and coincident removal of the pedestrian crossover (PXO).

Financial Implications and Impact Statement :

The funds associated with new traffic control signal installations are contained in the Works and Emergency Services Capital Program under Project No. C-TR031. As part of the Department's Capital Budget, \$1.6 million has been allocated for new traffic control signal installations in 2000.

The estimated total cost of installing traffic control signals at this location, including the removal of the existing PXO, is \$75,000.00. The added annual operating and maintenance costs associated with this installation are \$6,000.00 which includes all communication costs.

Recommendations :

It is recommended that:

- (1) traffic control signals be installed at the intersection of Kipling Avenue and Mattice Avenue/Road;
- (2) coincident with the installation of traffic control signals, the existing pedestrian crossover be removed; and
- (3) the appropriate City officials be requested to take whatever action is necessary to give effect to the foregoing, including the introduction in Council of any bills that may be required.

Background :

In 1992, Transportation staff (formerly Metro Transportation) considered replacing the existing PXO on Kipling Avenue near Mattice Avenue/Road with a Split PXO. The Split PXO would improve pedestrian safety at this location. However, a physically suitable location for

construction of the pedestrian refuge island component of the Split PXO could not be established due to the number of driveways in this vicinity. As an alternative, Transportation staff implemented other changes to improve pedestrian safety at this location. These changes included improving the sightlines for pedestrians crossing from the west side of the PXO, by relocating the southbound nearside bus stop approximately 50 metres south of Mattice Avenue/Road. In addition to the bus stop relocation, the accompanying nearside bus bay was also removed (filled in). Follow-up studies indicated that with the improvements the PXO was providing a safe crossing environment.

Recently, Transportation staff conducted new surveys to review the feasibility of replacing the existing pedestrian crossover at the intersection of Kipling Avenue and Mattice Avenue/Road with traffic control signals.

Comments:

In the vicinity of the subject intersection, Kipling Avenue is a four-lane arterial road (with additional exclusive northbound and southbound left-turn lanes) with a two-way 24-hour traffic volume of approximately 19,000 vehicles per day. A PXO is presently located on the north side of the intersection. A northbound nearside TTC bus bay/stop is located on the east side of Kipling Avenue, immediately south of Mattice Avenue/Road. A southbound bus stop is located approximately 50 metres south of Mattice Avenue/Road.

The posted speed limit on Kipling Avenue is 50 km/h. Prior to February 1998, the speed limit was 60 km/h.

A Traffic Control Signal Warrant study, conducted in November 1999, at the intersection of Kipling Avenue and Mattice Avenue, indicated that the technical warrants for the installation of traffic control signals are still not met.

However, Transportation staff conducted a safety audit, which also included a detailed review of this location compared with the recommended design standards, or "environmental standards", for PXO's as developed by the Province of Ontario in consultation with Ontario municipalities.

These criteria describe a roadway environment suitable for this type of control, and expose factors, which would make a PXO unsuitable or potentially unsafe. The following table outlines our review of these criteria and whether they are satisfied at this location.

Standards or Criteria to be Met for Physical Suitability of a PXO	Met/Not Met	Comment
Vehicle operating speed less than 60 km/h.	Not Met	85th percentile is 68 km/h.
Not more than four lanes wide on a two-way street.	Not Met	Four lanes plus northbound and southbound left-turn lane(s).
Traffic volume less than 35,000 vehicles per day (total both directions).	Met	19,000 vehicles per day.

Standards or Criteria to be Met for Physical Suitability of a PXO	Met/Not Met	Comment
No driveways or entrances nearby.	Not Met	Three driveways located immediately north of PXO.
No significant volume of turning movements which interfere with PXO.	Met	Low volumes from Mattice Avenue.
No visibility problems exist for either pedestrians or motorists.	Met	Visibility satisfactory.
No loading zones (including TTC) in the immediate vicinity.	Met	Northbound bus stop/bus bay south of Mattice Avenue.
Not less than 215 metres to another PXO or traffic control device.	Met	470 metres to traffic control signals at Burnhamthorpe Road.

As outlined above, the existing PXO fails to meet several of the environmental standards. Specifically, the vehicle operating speeds are a concern, particularly considering that the speed limit was reduced from 60 km/h to 50 km/h since the time of the last study (1995). Furthermore, the roadway width exceeds four lanes, and there are numerous driveways in the vicinity of the PXO. It should also be noted that the eight-hour pedestrian crossing volumes have more than doubled between the years of 1996 and 1999, from 70 to 165 crossings respectively. In addition, one pedestrian collision occurred at this location in 1999.

In view of the changes in the existing PXO's operational characteristics, specifically its failure to meet three of the "environmental standards", this location is no longer physically suitable for the operation of a PXO. Accordingly, the installation of traffic control signals is justified.

Staff have contacted the Ward Councillors, and Councillors Lindsay Luby, Giansante, O'Brien and Holyday support the recommendations of this report.

Conclusions:

The installation of traffic control signals to replace the existing PXO will benefit all roadway users in this area, provide safe and convenient access for pedestrians, and will not compromise the integrity of the arterial road network.

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List of Attachments:

- (1) Map

Insert Attachment 1
Map: Proposed Traffic Control Signals
Kipling Avenue at Mattice Avenue

The Works Committee submits the following communication (September 7, 2000) from Councillor Gloria Lindsay Luby, Kingsway Humber:

I am writing to advise the Committee Members that I fully support the installation of traffic signals at Kipling Avenue at Mattice Avenue/Road.

I would respectfully ask for the Committee's support of staff's recommendation.