Agenda – Standing Policy Committee on Infrastructure Renewal and Public Works – February 27, 2018

REPORTS

Item No. 11 **Traffic Study – Intersection of Regent Avenue West and Chrislind Street (Transcona Ward)**

WINNIPEG PUBLIC SERVICE RECOMMENDATION:

1. That this report be received as information.

Agenda – Standing Policy Committee on Infrastructure Renewal and Public Works – February 27, 2018

DECISION MAKING HISTORY:

STANDING COMMITTEE RECOMMENDATION:

On October 31, 2017, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the East Kildonan-Transcona Community Committee and directed the Winnipeg Public Service to conduct a traffic study at the intersection of Regent Avenue West at Chrislind Street for the purpose of installing a signalized pedestrian crossing, and report back to its meeting in March 2018.

COMMUNITY COMMITTEE RECOMMENDATION:

On October 17, 2017, the East Kildonan-Transcona Community Committee recommended to the Standing Policy Committee on Infrastructure Renewal and Public Works that the Winnipeg Public Service be directed to conduct a traffic study at the intersection of Regent Avenue West at Chrislind Street for the purpose of installing a signalized pedestrian crossing.

ADMINISTRATIVE REPORT

Title: Traffic Study – Intersection of Regent Avenue West and Chrislind Street

Critical Path: Standing Policy Committee on Infrastructure Renewal and Public Works

AUTHORIZATION

Author	Department Head	CFO	CAO
B. Neirinck, P.Eng. A/Manager of Transportation	Jim Berezowsky Acting Director of Public Works	n/a	D. McNeil

EXECUTIVE SUMMARY

A pedestrian and traffic study was completed at the intersection of Regent Avenue West and Chrislind Street as requested by the East Kildonan-Transcona Community Committee and the Standing Policy Committee on Infrastructure Renewal and Public Works. Analysis of the results indicated that a pedestrian crossing control device and/or traffic control signals is not warranted at this time. There are limited resources for installing pedestrian corridors and traffic signals. As a result, locations must be prioritized relative to each other City-wide so that limited funds are dedicated to locations with the highest need.

RECOMMENDATIONS

1. That this report be received as information.

REASON FOR THE REPORT

At its October 31, 2017 meeting, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the East Kildonan-Transcona Community Committee and directed the Winnipeg Public Service to conduct a traffic study at the intersection of Regent Avenue West at Chrislind Street for the purpose of installing a signalized pedestrian crossing, and report back to its meeting in March 2018.

IMPLICATIONS OF THE RECOMMENDATIONS

There are no implications as a result of this recommendation.

HISTORY/DISCUSSION

Background

Regent Avenue West is a Regional Street, Full Time Truck Route, Transit Route and Snow Route. Regent Avenue West contains a six-lane divided roadway (with an eastbound left-turn

lane onto Chrislind Street) and has a posted speed limit of 60 km/h from a point approximately 140 metres west of Plessis Road to Lagimodiere Boulevard. Review of traffic volumes on Regent Avenue West, in the vicinity of the proposed location, indicates an average weekday daily traffic (AWDT) volume of 37,900 vehicles.

Chrislind Street is a local street with a two-lane undivided roadway and a speed limit of 50 km/h. Chrislind Street extends north from Regent Avenue West to Ravelston Avenue West; Ravelston Avenue West provides an east-west connection from Chrislind Street to Plessis Road only (see Photo 1).

Regent Avenue West and Chrislind Street is a three-legged intersection and currently operates with stop control for southbound traffic and eastbound/westbound traffic is free flow. Pedestrian facilities in the vicinity include sidewalks on the north & south side of Regent Avenue West, and on the east & west side of Chrislind Street extending to a point approximately 115 metres north of Regent Avenue West. Bus stops are located nearside Chrislind Street for eastbound/westbound Regent Avenue West.

Location of traffic control devices nearest to the intersection of Regent Avenue West and Chrislind Street include:

- traffic control signals approximately 200 metres east of the intersection on Regent Avenue West at Plessis Road; and
- traffic control signals approximately 970 metres west of the intersection on Regent Avenue West at Owen Street.

A review of the collision data for the most recent 10-year period ending December 31, 2016 has no reported pedestrian-vehicle collisions. The intersection of Regent Avenue West and Chrislind Street was not identified as a location of concern in terms of collisions during a recent network screening review.

<u>Photo 1: Aerial View of Regent Avenue West and Chrislind Street</u>

Pedestrian Crossing Control Warrant - General

The City of Winnipeg has adopted the Transportation Association of Canada's (TAC) *Pedestrian Crossing Control Guide* (2011) to assess pedestrian crossing control needs. The warrant for a treatment system is determined using the preliminary assessment, based on factors that include vehicular volume at the crossing location, pedestrian volume, proximity to other traffic control devices, and route connectivity requirements. The following treatment systems are warranted at the locations listed below:

For non-elementary school locations such as the intersection of Regent Avenue West and Chrislind Street, the City considers that a warrant is met when the following two criteria from the *Pedestrian Crossing Control Guide* are met:

1. Average hourly pedestrian volume in terms of Equivalent Adult Units (EAUs) is greater or equal to 15 per hour over a minimum seven hour continuous period and Average Daily Traffic (ADT) is greater or equal to 1,500 vehicles per day. EAUs account for age and differences in physical ability (i.e.: one adult = 1.0 EAU, one unaccompanied child ≤ 12 years = 2.0 EAUs, one senior ≥ 65 = 1.5 EAUs and one pedestrian with physical impairments = 2.0 EAUs).

2. The proposed crossing location is at a minimum distance, "d", from the nearest form of traffic control. "d" can be set at any distance between 100 - 200 metres for a particular location. Selection of a value for "d" depends on factors such as road type and expected queue lengths.

A pedestrian crossing study was undertaken at the intersection of Regent Avenue West and Chrislind Street on November 28, 2017. Review of the pedestrian data indicates there are a total of 64 EAUs crossing at Chrislind Street over a minimum seven hour continuous period (08:45-15:45), which is an average of 9 EAU crossings each hour.

Although the vehicular traffic volume and distance "d" warrant criteria have been met, the pedestrian crossing study indicates a crossing volume below the 15 EAUs crossing per hour. As a result, the location of Regent Avenue West and Chrislind Street does not meet a warrant for further consideration of a pedestrian crossing control device at this time. For reference, the City has a number of locations which are currently under consideration as candidates for pedestrian crossing control that have pedestrian volumes ranging from 15-93 EAU crossings each hour.

Traffic Control Signals Warrant

When reviewing the need for traffic control signals, the Public Works Department follows the installation warrant criteria contained in the *Manual of Uniform Traffic Control Devices for Canada* which is based upon the conflicting pedestrian and vehicular volumes for the 6 busiest hours during a typical weekday. The minimum cross street volume threshold for consideration of traffic control signals is 75 vehicles per hour (excluding right turns) for at least 6 hours of the day. Generally, traffic control signals are considered (recommended) when the conflicting traffic volumes for the busiest six hours of a typical weekday produce a signal warrant of 100. The conflicting intersection volumes produced a signal warrant of 58, which is below the 100 threshold.

Traffic control signals create additional stoppages and delays for motorists; the regular requirement for east/west drivers on Regent Avenue West to stop would increase delays and the potential for rear-end collisions. Increased stoppages and vehicle idling associated with

traffic control signal operation increases fuel consumption and vehicle emissions. For these reasons, a minimum cross street volume of 75 vehicles per hour (excluding right turns) threshold for at least 6 hours of the day is recommended; the average cross street volume on Chrislind Street is 12 vehicles per hour over a six hour period. As a result, the location of Regent Avenue West and Chrislind Street does not meet a warrant for consideration of traffic control signals at this time.

Winnipeg Public Service Recommendation

Based on the information above, the Winnipeg Public Service does not recommend any form of pedestrian crossing control and/or traffic control signals for the intersection of Regent Avenue West and Chrislind Street at this time.

FINANCIAL IMPACT

Financial Impact Statemen Date: January 31, 2018

Project Name:
Traffic Study – Intersection of Regent Avenue West and Chrislind Street

COMMENTS:

There are no implications as a result of this recommendation.

"Original signed by J. Ruby, CPA, CA"
J. Ruby CPA, CA
Manager of Finance & Administration

CONSULTATION

This Report has been prepared in consultation with: n/a

OURWINNIPEG POLICY ALIGNMENT

The recommendation of this report is aligned with the key strategic goal of a safe, efficient and equitable transportation system for people, goods and services in the Sustainable Transportation Direction Strategy that supports OurWinnipeg.

SUBMITTED BY

Department: Transportation
Division: Public Works
Prepared by: Michelle Meier, C.E.T., IntET(Canada) Traffic Analyst
Date: January 19, 2018
File No: E-08, E-09