

**Minutes – Standing Policy Committee on Infrastructure Renewal and Public Works –  
April 21, 2020**

**REPORTS**

**Item No. 17                      Traffic Study – Aldgate Road at Highbury Street  
(St. Norbert-Seine River Ward)**

**STANDING COMMITTEE DECISION:**

The Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Winnipeg Public Service and received the report as information.

**Minutes – Standing Policy Committee on Infrastructure Renewal and Public Works –  
April 21, 2020**

**DECISION MAKING HISTORY:**

Moved by Councillor Santos,

That the recommendation of the Winnipeg Public Service be concurred in.

Carried

**STANDING COMMITTEE RECOMMENDATION:**

On March 3, 2020, the Standing Policy Committee on Infrastructure Renewal and Public Works granted a further extension of time to its April 7, 2020 meeting for the Winnipeg Public Service to report back on the matter.

On November 19, 2019, the Standing Policy Committee on Infrastructure Renewal and Public Works granted an extension of time to its March 3, 2020 meeting for the Winnipeg Public Service to report back on the matter.

On May 2, 2019, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Riel Community Committee and directed the Winnipeg Public Service to conduct a traffic study to determine if a crosswalk at Aldgate Road at Highbury Street is warranted, and report back to the Standing Committee within 180 days.

**COMMUNITY COMMITTEE RECOMMENDATION:**

On April 8, 2019, the Riel Community Committee passed the following motion:

WHEREAS the area south of Aldgate Road has experienced significant population growth over the last two years and new families have purchased homes in the area;

AND WHEREAS many children of these families south of Aldgate Road attend Highbury school and walk to school which is on the north side of Aldgate Road;

AND WHEREAS Highbury School also accommodates children from other schools who attend the school for vocational programming on a daily basis;

AND WHEREAS traffic is a growing concern early in the morning and throughout the school day as children walk to and from school;

**Minutes – Standing Policy Committee on Infrastructure Renewal and Public Works –  
April 21, 2020**

DECISION MAKING HISTORY (continued):

COMMUNITY COMMITTEE RECOMMENDATION (continued):

AND WHEREAS a crossing guard cannot be deployed unless a traffic calming mechanism is installed;

AND WHEREAS the volume and speed of traffic appears to have increased on Aldgate Road;

THEREFORE BE IT RESOLVED that the Standing Policy Committee on Infrastructure Renewal and Public Works request the Winnipeg Public Service to conduct a traffic study to determine if a crosswalk at Aldgate Road at Highbury Street is warranted.

## ADMINISTRATIVE REPORT

**Title:** Traffic Study – Aldgate Road at Highbury Road

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

### AUTHORIZATION

| Author             | Department Head | CFO | CAO                     |
|--------------------|-----------------|-----|-------------------------|
| D. Patman, P. Eng. | J. Berezowsky   | N/A | M. Ruta,<br>Interim CAO |

### EXECUTIVE SUMMARY

The review of crossing control at Aldgate Road and Highbury Road indicates that the location is not currently warranted for pedestrian crossing control. However, there is a basis to propose a controlled crossing at Aldgate Road and Highbury Road that would be patrolled by Highbury School to service latent demand from the school and to provide a controlled crossing option in this section of Aldgate Road after higher priority warranted locations have been addressed.

The proposed crossing control is a Rectangular Rapid Flashing Beacon (RRFB) treatment system, which has recently been approved by the Province of Manitoba. The RRFB crossing will be placed on the priority list for installation through the Traffic Engineering Improvement Program (TEIP) subject to available budget and City-wide priorities. At the time of this report, the public service estimates the cost of this project to be \$25,000 for a solar-powered beacon on a two-lane roadway without a median, and an annual maintenance cost of approximately \$2,500.

### RECOMMENDATIONS

That this report be received as information.

### REASON FOR THE REPORT

On May 2, 2019, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Riel Community Committee and directed the Winnipeg Public Service to conduct a traffic study to determine if a crosswalk at Aldgate Road at Highbury Street is warranted, and report back to the Standing Committee within 180 days. Subsequent extensions were provided by the Standing Committee.

### IMPLICATIONS OF THE RECOMMENDATIONS

There are no implications to receiving this report as information.

## **HISTORY/DISCUSSION**

### **BACKGROUND INFORMATION**

On May 2, 2019, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Riel Community Committee and directed the Winnipeg Public Service to conduct a traffic study to determine if a crosswalk at Aldgate Road at Highbury Street is warranted, and report back to the Standing Committee. Reasons stated for the request included:

- The area south of Aldgate Road has experienced significant population growth over the last two years and new families have purchased homes in the area.
- Many children of these families south of Aldgate Road attend Highbury School and walk to school, which is on the north side of Aldgate Road.
- Highbury School also accommodates children from other schools who attend the school for vocational programming on a daily basis.
- Traffic is a growing concern early in the morning and throughout the school day as children walk to and from school.
- A crossing guard cannot be deployed unless a traffic calming mechanism is installed.
- The volume and speed of traffic appears to have increased on Aldgate Road.

### **TRAFFIC CHARACTERISTICS**

Aldgate Road is an east-west collector street that runs along the southern end of the River Park South neighbourhood between St. Mary's Road (via Burland Avenue) and St. Anne's Road. The study area for this report is illustrated in Figure 1 (below). At the intersection of Aldgate Road and Highbury Road/Tilstone Bay, Aldgate Road is free-flowing and Highbury Road and Tilstone Bay are both stop controlled. Aldgate Road is an approximately 10-metre-wide two-lane undivided road with parking permitted on the north side. Aldgate Road is a Snow Route and a Transit Route and there are three bus stops on Aldgate Road near the intersection. Highbury Road is a local street but does accommodate Transit and provides access to Highbury School, which is a Kindergarten to Grade 8 elementary school. Land use around the study intersection is single family residential and there are sidewalks on both sides of Aldgate Road and Highbury Road. Tilstone Bay does not have sidewalks.

The speed limit on Aldgate Road is 50 km/h. A speed study conducted on Aldgate Road in May 2018 indicated an average speed of 33 km/h and an 85<sup>th</sup> percentile speed of 42 km/h. There are speed tables along Aldgate Road both east and immediately west of the study intersection. These speed tables are likely influencing (reducing) travel speed through the intersection. Counts undertaken on Aldgate Road west of Highbury Road/Tilstone Bay in 2018 indicate a daily volume on Aldgate Road of approximately 4,000 vehicles per day. More than 90% of traffic at the intersection is on Aldgate Road. There have been five reported collisions at the intersection in the 2012 to 2018 period. Four of the five collisions occurred in November and December with three of the collisions occurring with ice on the road. None of the collisions involved a pedestrian.



**Figure 1: Study Area**

### **CURRENT PEDESTRIAN CROSSING CONTROL GUIDELINES**

Current Pedestrian Crossing Control Guidelines were approved by the Standing Policy Committee on Infrastructure Renewal and Public Works on January 11, 2013. These guidelines are based on the Pedestrian Crossing Control Guide published by the Transportation Association of Canada (TAC). The Pedestrian Crossing Control Guide presents a set of principles to guide professionals during the decision-making process associated with the provision of pedestrian crossing control. The warrant for a treatment system is based on factors that include pedestrian volume at the crossing location, vehicular traffic volume, proximity to other traffic control devices, and route connectivity requirements. For non-elementary school locations, the City considers that a warrant is fulfilled 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. For example, an able-bodied adult is considered as 1.0 EAU, an unaccompanied child (estimated age  $\leq 12$  years) is considered as 2.0

EAUs, a senior citizen (estimated age >65 years) is considered as 1.5 EAUs, and an individual of any age with a physical impairment is considered as 2.0 EAUs.

2. The proposed crossing location is at a minimum distance, from the nearest form of traffic control, typically between 100 metres and 200 metres for a particular location. This may vary based on a location's individual traffic characteristics and engineering judgment.

Pedestrian crossings of Aldgate Road at the intersection of Highbury Road were counted between May 30-31, 2019 (a Thursday and Friday) for a total duration of 12 hours. During the count, 52 pedestrians were recorded (none of which were unaccompanied children 12 years of age or younger) and during the highest use seven-hour period 38 EAU's were counted, which averages to 5 EAU's per hour. **As a result, the basic non-elementary school warrant is not met at this time due to insufficient crossing demand.** The minimum distance requirement of 100 metres is met. Collision history does not appear to be an issue with five collisions occurring in the last seven years.

In Winnipeg, the warrant for elementary school (a school that contains a K-6 grade) ground mounted crosswalks and pedestrian corridors are assessed differently than the Pedestrian Crossing Control Guide. In general, school children near a crosswalk are more visible than any signs that may be installed. However, as a means of informing motorists at all times of the day that children may frequent the crossing and as a means of supporting the school patrol/crossing guard program, school crosswalk signs and markings may be installed on streets where the posted speed limit is less than or equal to 60 km/h and the proposed crossing location is at a distance, "d", from the nearest form of traffic control where:

- The crossing is adjacent to or near elementary schools where school patrols/crossing guards are present during school arrival and dismissal times;
- The crossing is at a public pathway frequented by elementary school children on their way to/from school, which are supported by the school patrol/crossing guard program.

The Highbury School principal has indicated that the school would intend to provide patrols at the Aldgate Road and Highbury Road intersection if crossing control was added and that the school does have funding for an adult supervisor position (the position is currently vacant). The principal indicated that there are currently approximately 100 children attending Highbury School that live south of Aldgate Road and east of Scammel Road (the catchment limit) who are too close to the school to be eligible for bussing. During an observation at the intersection on January 14, 2020 between 8:00 a.m. and 8:30 a.m., seven children 12 years of age or younger were observed crossing the east side of the intersection unaccompanied.

For elementary school pedestrian corridors, the crossing must meet the patrolled crosswalk requirement and have a minimum of 200 vehicles traversing the crosswalk in the highest 1/2 hour of activity. The cross-product of the number of children crossing versus the number of vehicles traversing the crosswalk in the highest half-hour of activity (usually 08:30 - 09:00) must exceed 5,000 or 5 units of benefit (one unit of benefit is defined as the cross-product of 10 children and 100 vehicles) for the elementary school corridor warrant to be met.

At Aldgate Road and Highbury Road, the highest number of pedestrians recorded crossing was 16 crossings between 3:00 p.m. and 3:30 p.m. (school dismissal is at 3:10 p.m.). No unaccompanied children 12 and under were noted; however, if all 16 crossings were parent and child it would result in a maximum of 8 children crossing (which is similar to the number of children observed crossing unaccompanied during the morning of January 14, 2020). The average volume of vehicle traffic recorded in the 3:00 p.m. to 3:30 p.m. time period is 155 vehicles. This results in a maximum cross product of 1,240 or 1.24 units of benefit. **As such,**

***neither the minimum level of vehicle activity nor the cross-product warrant thresholds for an elementary school crossing are met at the intersection.***

In addition to the warrants, the need for crossing control based on latent demand, system connectivity and considerations for linking land uses as outlined in the TAC Pedestrian Crossing Control Guide was reviewed. With respect to latent demand, the largest consideration would be from the school. As noted previously, there are 100 students who could potentially make use of a controlled crossing at Aldgate Road and Highbury Road, and Highbury Road is located at the very west edge of the school catchment area, so walking to that point from the east along the south sidewalk on Aldgate Road would be a fairly direct route. In addition, there are no alternative controlled crossing locations in this area of Aldgate Road east of Paddington Road, so any crossing that is added will be the sole controlled crossing point in this section of Aldgate Road.

From a system connectivity standpoint, the lack of an alternative point to cross this section of Aldgate Road is the primary consideration. Also, there is an active transportation path that crosses Aldgate Road only 50 metres west of the Highbury Road intersection, which means that in the long term only one of the two locations would be suitable for crossing control. The City's Senior Active Transportation Planner confirmed that the current active transportation path, which connects to Kingsclear Drive and Scammel Road at its south terminus, is not anticipated to change in nature or extent for the foreseeable future. Observed use of this path south of Aldgate Road is low and it does not appear that the path currently has, or would have the potential to have, as much crossing demand as the intersection at Highbury Road.

Based on the above, although warrants are not met, there is a basis to propose a controlled crossing at Aldgate Road and Highbury Road that would be patrolled by Highbury School to service latent demand from the school and to provide a controlled crossing option in this section of Aldgate Road. The TAC guideline's "Decision Support Tool – Treatment Selection Matrix" recommends a crossing control treatment based on the following factors: Average Daily Traffic (ADT) volumes, speed limit, and roadway cross section. In the case of the Aldgate Road location, the matrix decision would be based on a cross section with two lanes per direction without a raised median refuge, a speed limit of 50 km/h or less, and an annual traffic volume below 4,500 vehicles. Based on the guideline's "Decision Support Tool – Treatment Selection Matrix", the recommended minimum treatment across Aldgate Road would be an enhanced signed and marked crosswalk. However, enhanced signed and marked crosswalks are not a common treatment in Winnipeg and the width of Aldgate Road (10 metres) and presence of Transit and school bus movements are factors indicating that a higher order RRFB treatment system would be appropriate. The RRFB crossing should be located on the east side of the intersection (the same side of Highbury Road as Highbury School).

## **SUMMARY**

The review of crossing control at Aldgate Road and Highbury Road indicates that the location is not currently warranted for pedestrian crossing control. However, now that it has been studied, the location can be added to the Public Works pedestrian crossing control priority list for future consideration based on latent demand from Highbury School and system connectivity needs after higher priority warranted locations have been addressed. The proposed crossing control is an RRFB treatment system. Installation costs would be funded through the Traffic Engineering Improvements Program subject to the availability of resources and City-wide priorities.



The RRFB crossing features a push button actuated crossing, with a set of rectangular rapid flashing beacons on both sides of the street and visible by both directions of vehicle travel. The treatment also consists of signs advising of a pedestrian crossing as well as paint on the roadway. Figure 2, below, shows an RRFB crossing installation in Saskatoon, SK (in Manitoba, paint markings would differ). The estimated installation cost is \$25,000 for solar powered RRFB on a two lane roadway without a median and an annual maintenance cost of approximately \$2,500. The RRFB crossing will be prioritized amongst other warranted pedestrian crossing locations and will be installed as resources allow. Installation costs would be funded through the Traffic Engineering Improvements Program subject to the availability of resources and City-wide priorities. Maintenance of the crossing will be the responsibility of the Traffic Signals and Traffic Services branches, using operating budgets.



Figure 2: Typical RRFB Pedestrian Crossing Installation on a Four Lane Divided Roadway.

## FINANCIAL IMPACT

**Financial Impact Statement** Date: [March 4, 2020](#)

**Project Name:**

**Traffic Study – Aldgate Road at Highbury Road**

### COMMENTS:

There is no financial impact associated with the recommendation of this report.

The preliminary cost estimate for the solar powered Rectangular Rapid Flashing Beacon is \$25,000 and an annual maintenance cost of approximately \$2,500. At this time there is no approved budget allocated to deliver this project. This work will be placed on the priority list for installation through the Traffic Engineering Improvement Program subject to available budget and City-wide priorities.

*"Original signed by J. Petets, CPA, CGA*

J. Peters CPA, CGA

Acting 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.

## WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

N/A

## SUBMITTED BY

**Department:** Public Works  
**Division:** Transportation  
**Prepared by:** C. Flather, P.Eng., M.Sc., Traffic Management Engineer  
**Date:** March 5, 2020  
**File No.:** A-08