

**Minutes – Standing Policy Committee on Infrastructure Renewal and Public Works –
May 19, 2020**

REPORTS

**Item No. 21 Traffic Control Signals for McPhillips Street at
North Point Boulevard
(Old Kildonan Ward)**

STANDING COMMITTEE DECISION:

The Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Winnipeg Public Service and approved the following:

1. The installation of new traffic control signals at the intersection of McPhillips Street and North Point Boulevard.
2. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

**Minutes – Standing Policy Committee on Infrastructure Renewal and Public Works –
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DECISION MAKING HISTORY:

Moved by Councillor Sharma,

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

Carried

ADMINISTRATIVE REPORT

Title: Traffic Control Signals for McPhillips Street at North Point Boulevard

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

AUTHORIZATION

Author	Department Head	CFO	CAO
D. Patman, P. Eng.	J. Berezowsky	P. Olafson, Interim CFO	M. Ruta, Interim CAO

EXECUTIVE SUMMARY

The Winnipeg Public Service recommends the installation of traffic signals at the intersection of McPhillips Street and North Point Boulevard. Traffic control signals are warranted based on the on-going level of development in Precinct F and the traffic projections and analysis submitted as part of the *Precinct F Transportation Review*. The traffic signals are required to provide acceptable level of service for traffic operations and will increase the level of safety at the intersection.

The estimated capital cost of the signal at McPhillips Street and North Point Boulevard is \$325,000 (including advance warning flashers on both approaches on McPhillips Street). The capital cost of the signal is 100% developer-funded through developer agreement AG 40/15. The combined estimated annual maintenance and operating cost associated with this signal is \$5,000.

RECOMMENDATIONS

1. That the installation of new traffic control signals at the intersection of McPhillips Street and North Point Boulevard be approved.
2. That the proper officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

REASON FOR THE REPORT

As the City's Traffic Authority, the Standing Policy Committee on Infrastructure Renewal and Public Works must approve installation of traffic control signals. The Winnipeg Public Service has determined that signals are required at this intersection.

IMPLICATIONS OF THE RECOMMENDATIONS

The estimated capital cost for the installation of the signal at McPhillips Street and North Point Boulevard is \$325,000 (including advance warning flashers on both approaches on McPhillips Street). The capital cost of the signal is 100% developer-funded under developer agreement

AG 40/15. The combined estimated annual maintenance and operating cost associated with this signal is \$5,000.

HISTORY/DISCUSSION

EXISTING CONDITIONS

The intersection of McPhillips Street and North Point Boulevard is currently a stop controlled T-intersection (North Point Boulevard is stop controlled). Figure 1 illustrates the location of the intersection and the surrounding roadway network. Northbound on McPhillips Street there are two through lanes and one auxiliary right turn cut off lane. Southbound on McPhillips Street there are two southbound lanes and one left turn auxiliary lane. The nearest intersection on McPhillips Street to the north is approximately 400 metres away at Murray Avenue and is scheduled to have traffic signals installed in 2020. The nearest intersection on McPhillips Street to the south is approximately 400 metres away at Storie Avenue, which is stop-controlled.

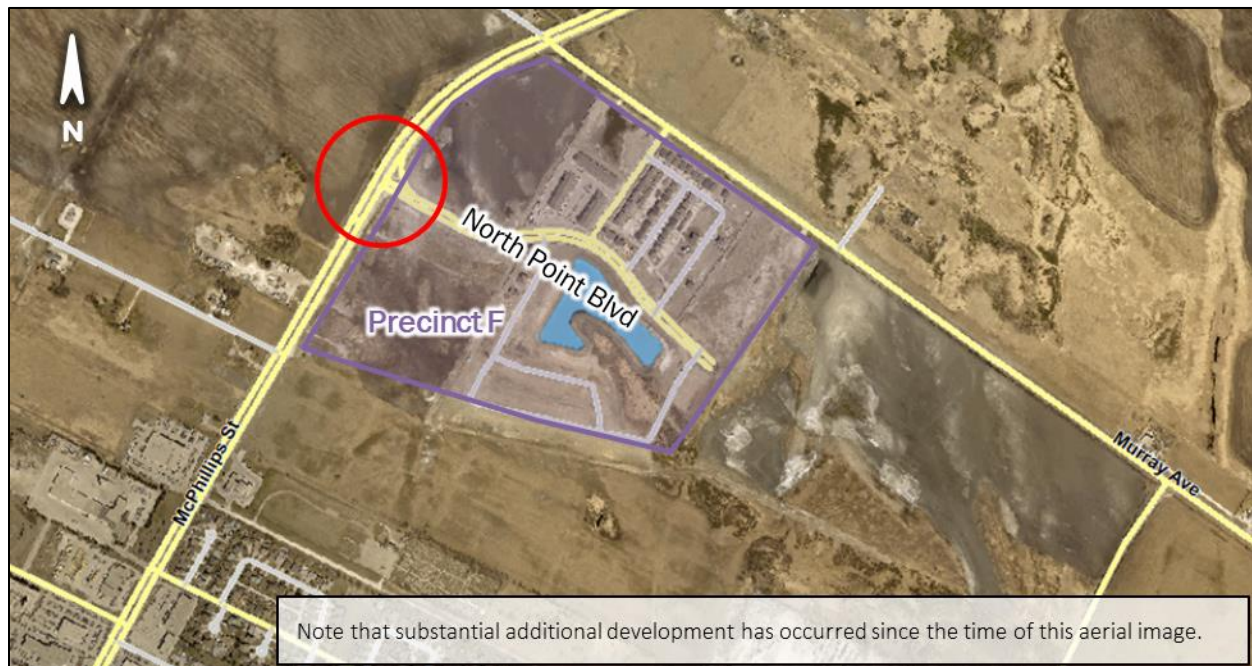


Figure 1: Intersection of McPhillips Street and North Point Blvd (Winnipeg 2018 airphoto)

McPhillips Street is a north-south Regional Street with a four-lane divided rural cross-section and it is part of the full-time truck route network. The Average Weekday Daily Traffic (AWDT) volume on this section of McPhillips Street is approximately 19,000 vehicles (this is based on the 2018 Traffic Flow Map but is expected to significantly increase in future years). The posted speed limit is 80 km/h. There are no separated active transportation facilities on McPhillips Street in this vicinity.

North Point Boulevard is an east-west collector road with two through lanes per direction. The speed limit is unposted and, therefore, is 50 km/h by default. There is no historical traffic count for North Point Boulevard as it is a recently constructed roadway and traffic volumes will be rapidly increasing as development continues. The *Precinct F Transportation Review* (MMM Group Limited, 2013) estimates that North Point Boulevard will have approximately 22,000 vehicles per day post-development. There is a multi-use path along the south side of North Point Boulevard and a sidewalk along the north side.

COLLISION ANALYSIS

The collision history can be used as a basis for statistical comparison of the safety performance with other similar intersections. As this is a recently-constructed intersection, there is not adequate historical safety data to provide meaningful insight of the safety performance of this intersection.

TRAFFIC CONTROL SIGNALS WARRANT

In recommending the installation of new traffic control signals, the Winnipeg Public Service follows the installation warrant criteria provided in the Transportation Association of Canada *Manual of Uniform Traffic Control Devices for Canada*, a national standard which is based upon the conflicting pedestrian and vehicular volumes for the busiest six 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 six hours of the day. Generally, traffic control signals are recommended when the conflicting traffic volumes for the busiest six hours of a typical weekday produce a signal warrant of 100 points and fulfill the minimum cross street volume criterion to ensure that traffic signal control is an appropriate consideration throughout the day.

In most circumstances, the warrant calculations are completed using traffic volumes from a recent intersection turning movement count reflective of current and expected conditions. However, these signals are being evaluated to serve the rapidly on-going development and traffic volumes are expected to significantly increase. Based on the traffic projections and analysis completed as part of the *Precinct F Transportation Review* (MMM Group Limited, 2013) traffic signals are required at this intersection to provide a safe access point to the development with acceptable traffic delays. The continued on-going development now warrants that the signals be installed.

ADVANCE WARNING FLASHERS WARRANT

In recommending the installation of advance warning flashers at signalized intersections, the Winnipeg Public Service follows the installation warrant criteria provided in the Transportation Association of Canada *Advance Warning Flashers: Guidelines for Application and Installation*, which is a national standard. The warrant criteria consider sight distance, minimum posted speed limit, gateway from rural to urban environment, approach grade, truck traffic percentage, collision history, and minor road traffic volume. Advance warning flashers in advance of a traffic control signal may be considered when one or more of the warrant conditions exist on the approach to a signalized intersection. Generally, a location where two or more of the above noted conditions exist would strongly indicate the justification for advance warning flashers.

On the northbound approach, two of the conditions are met (80 km/h posted speed limit and minor road volume exceeding 13,000 vehicles per day based on the *Precinct F Transportation Review*). Advance warning flashers are warranted on the northbound approach.

On the southbound approach three of the conditions are met (80 km/h posted speed limit and minor road volume exceeding 13,000 vehicles per day based on the *Precinct F Transportation Review*, and limited sight distance due to the horizontal curvature). Advance warning flashers are warranted on the southbound approach.

FINANCIAL IMPACT**Financial Impact Statement**Date: **May 1, 2020**

Project Name:

First Year of Program

2020

Traffic Control Signals for McPhillips Street at North Point Boulevard

	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>
Capital					
Capital Expenditures Required					
Less: Existing Budgeted Costs					
Additional Capital Budget Required	\$ -	\$ -	\$ -	\$ -	\$ -
Funding Sources:					
Debt - Internal					
Debt - External					
Grants (Enter Description Here)					
Reserves, Equity, Surplus					
Other - Enter Description Here					
Total Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Total Additional Capital Budget Required	\$ -				
Total Additional Debt Required	\$ -				
Current Expenditures/Revenues					
Direct Costs	\$ 325,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
Less: Incremental Revenue/Recovery	325,000				
Net Cost/(Benefit)	\$ -	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
Less: Existing Budget Amounts		5,000	5,000	5,000	5,000
Net Budget Adjustment Required	\$ -	\$ -	\$ -	\$ -	\$ -
Additional Comments: Direct costs in 2020 represent the total estimated cost to install the traffic control signal to be 100% funded by the developer as per development agreement 40/15. Direct costs (2021 to 2024) represent the annual maintenance and operating costs of the new traffic control signals, and will be charged to the Public Works Department Transportation division operating budget.					

"Original signed by J. Peters, 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 Sustainable Transportation Direction Strategy developed as part of OurWinnipeg forms the policy framework for the Transportation Master Plan (TMP). Sustainable Transportation identified a vision and five Key Strategic Goals which are critical to achieving a balanced and sustainable transportation system for Winnipeg. These goals form the basis for the TMP and the directions and strategies contained within it:

1. A transportation system that is dynamically integrated with land use;
2. A transportation system that supports active, accessible and healthy lifestyle options;
3. A safe, efficient and equitable transportation system for people, goods and services;
4. Transportation infrastructure that is well maintained
5. A transportation system that is financially sustainable

The recommendations within this report are consistent with the Key Strategic Goals.

WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

N/A

SUBMITTED BY

Department: Transportation
Division: Public Works
Prepared by: Keenan Patmore, M.Sc., P. Eng., Regional Traffic Engineer
Date: May 1, 2020