Agenda – Council – March 23, 2023

Report – Standing Policy Committee on Public Works – March 7, 2023

Item No. 2 **Cost Sharing Agreement between The City of Winnipeg and Rural Municipality of Rosser and Traffic Control Signal Installation for Brookside Boulevard and Jefferson Avenue (Old Kildonan Ward)**

STANDING COMMITTEE RECOMMENDATION:

On March 13, 2023, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Public Works and submitted the following to Council:

1. That the City enter into, execute and deliver a cost-sharing agreement with the Rural Municipality of Rosser, and such other agreements as determined necessary by the City Solicitor / Director of Legal Services to implement the intent of the foregoing (the "Ancillary Agreements").

2. That authority be delegated to the Chief Financial Officer to negotiate and approve the terms and conditions of the contribution agreements with the Rural Municipality of Rosser and the Ancillary Agreements, in accordance with this report and such other terms and conditions deemed necessary by the City Solicitor / Director of Legal Services to protect the interests of the City.

3. That the installation of new traffic control signals at the intersection of Brookside Boulevard and Jefferson Avenue be approved.

4. That the 2021 Traffic Engineering Improvements program (project #1831000121) be increased by up to $178,282 based on the final amount received from the Rural Municipality of Rosser.

5. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

Agenda – Council – March 23, 2023

Report – Standing Policy Committee on Public Works – March 7, 2023

DECISION MAKING HISTORY:

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On March 13, 2023, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Public Works and submitted the matter to Council.

STANDING COMMITTEE RECOMMENDATION:

On March 7, 2023, the Standing Policy Committee on Public Works concurred in the recommendation of the Winnipeg Public Service and submitted the matter to the Executive Policy Committee and Council.

ADMINISTRATIVE REPORT

Title: Cost Sharing Agreement between The City of Winnipeg and Rural Municipality of Rosser and Traffic Control Signal Installation for Brookside Boulevard and Jefferson Avenue

Critical Path: Standing Policy Committee on Public Works – Executive Policy Committee – Council

AUTHORIZATION

Author	Department Head	CFO	CAO
D. Patman, P. Eng.	B. Neirinck on behalf of J. Berezowsky	C. Kloepfer	M. Jack

EXECUTIVE SUMMARY

The Winnipeg Public Service requests Council approval to enter into a cost sharing agreement with the Rural Municipality (RM) of Rosser in order to improve the intersection at Brookside Boulevard and Jefferson Avenue. The RM of Rosser is developing the BrookPort Business Park on the lands immediately west of Brookside Boulevard.

Traffic control signals are recommended for the intersection based on the traffic projections and analysis completed as part of the *Brookport Business Park – East Traffic Impact Study* (WSP, 2018) and *Brookport Business Park – West Traffic Impact Study* (WSP, 2020). The traffic signal warrant analysis shows that, as a result of the on-going Business Park development, the intersection will greatly exceed the required 100 warrant priority points and also meet the minimum cross street volume threshold of 75 vehicles per hour. Traffic signals will provide an acceptable level of service for traffic operations and will increase the level of safety at the intersection.

The geometric improvements to the intersection, funded by the development in the RM of Rosser, have already been substantially completed. Those improvements include the dual northbound left turn lanes and an upgraded eastbound approach, but do not include the southbound left turn lane. Once signalized, the intersection will not allow for a southbound left turn opposing the dual northbound left. This turn will be restricted until such time as a southbound left turn lane can be constructed in conjunction with a substantial upgrade to Jefferson Avenue to accommodate increasing traffic volumes.

The estimate for signal installation is $340,000 plus overheads, of which the City of Winnipeg will pay 50% and the RM of Rosser will pay 50%, of the total cost. The City's share of the installation costs will be charged to the Traffic Engineering Improvement Program (TEIP).

RECOMMENDATIONS

1. That the City enter into, execute and deliver a cost-sharing agreement with the Rural Municipality of Rosser, and such other agreements as determined necessary by the City

Solicitor / Director of Legal Services to implement the intent of the foregoing (the "Ancillary Agreements").

2. That authority be delegated to the Chief Financial Officer to negotiate and approve the terms and conditions of the contribution agreements with the Rural Municipality of Rosser and the Ancillary Agreements, in accordance with this report and such other terms and conditions deemed necessary by the City Solicitor / Director of Legal Services to protect the interests of the City.

3. That the installation of new traffic control signals at the intersection of Brookside Boulevard and Jefferson Avenue be approved.

4. That the 2021 Traffic Engineering Improvements program (project #1831000121) be increased by up to $178,282 based on the final amount received from the Rural Municipality of Rosser.

5. 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

Council approval is required for the City to enter into the cost-sharing agreement with the Rural Municipality of Rosser.

Further, as the City's Traffic Authority, approval from the Standing Policy Committee on Public Works is required to approve the installation of new traffic control signals.

IMPLICATIONS OF THE RECOMMENDATIONS

The contribution agreements must be signed and returned in order to receive the funding from the RM of Rosser.

The estimated capital cost of the traffic signal is $340,000 plus overheads (Class 2 estimate), of which the City of Winnipeg will pay 50% and the RM of Rosser will pay 50%. The City of Winnipeg's share of the cost will be funded by the Traffic Engineering Improvements Program (TEIP) budget. The annual maintenance and operating cost associated with this signal will be funded within existing resources by the Transportation Operating Budget.

HISTORY/DISCUSSION

The intersection of Brookside Boulevard and Jefferson Avenue / Farmer Avenue (Farmer Avenue is in the RM of Rosser), is a two-way stop-controlled intersection. Figure 1 (below) illustrates the location of the intersection and the surrounding road network.

Brookside Boulevard is a north-south Regional Street with a four-lane divided rural cross-section. It is a critical part of the Full-time Truck Route Network and provides connectivity between the Provincial Highway Network and the City of Winnipeg. The average weekday daily traffic volume on this section of Brookside Boulevard is 28,300 and is expected to increase in future years with the continued development of CentrePort Canada. The posted speed limit is 80 km/h.

Figure 1: Intersection of Brookside Blvd and Jefferson Ave / Farmer Ave
(Google Earth 2020 aerial imagery)

COST SHARING AGREEMENT

Within the RM of Rosser, the lands immediately west of Brookside Boulevard and north of Farmer Road are being developed for the BrookPort Business Park as part of the Rosser CentrePort Lands area. These lands will primarily comprise of warehousing, manufacturing, and light industrial businesses. To meet conditional approval requirements and conditions for

subdivision, BrookPort Business Park submitted a Traffic Impact Study (TIS) to the RM of Rosser following guidelines set out by Manitoba Infrastructure and the City of Winnipeg.

The results of the TIS recommended the following improvements for the intersection of Brookside Boulevard and Jefferson Avenue / Farmer Road:

- Signalization of the intersection. The City of Winnipeg and RM of Rosser will each be responsible for 50% of the cost of this geometric improvement.

- Addition of a southbound left-turn lane to the southbound approach on Brookside Boulevard to improve the safety of the intersection. The resulting approach will consist of a left-turn lane, two through lanes, and a right-turn lane. City of Winnipeg and the RM of Rosser will each be responsible for 50% of the cost of this geometric improvement.

- Addition of a second northbound left turn lane to the northbound approach on Brookside Boulevard. The resulting approach will consist of two left-turn lanes, a through lane, and a shared through/right-turn lane. The RM of Rosser will be responsible for the full cost of these geometric improvements.

- Addition of a right-turn cut-off lane with an acceleration lane to the eastbound approach on Farmer Road. The resulting approach will consist of a shared left-turn / through lane and a right-turn cut-off with an acceleration lane. The RM of Rosser will be responsible for the full cost of these geometric improvements.

- The westbound approach on Jefferson Avenue remains the same and consists of a shared left-turn / through / right-turn lane.

The geometric improvements to the intersection funded by the development in the RM of Rosser have already been substantially completed. Those improvements include the dual northbound left turn lanes, and an upgraded eastbound approach, but do not include the southbound left turn lane. Once signalized, the intersection will not allow for a southbound left turn opposing the dual northbound left. This turn will be restricted until such time as a southbound left turn lane can be constructed in conjunction with a substantial upgrade to Jefferson Avenue to accommodate increasing traffic volumes.

TRAFFIC SIGNALS WARRANT ANALYSIS

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 (TAC) *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 (partially) the ongoing Business Park development in the RM of Rosser. Based on the traffic projections and analysis completed as part of the *Brookport Business Park – East Traffic Impact Study* (WSP, 2018) and *Brookport Business Park – West Traffic Impact Study* (WSP, 2020), the signal warrant analysis shows that once the development is completed the intersection will greatly exceed the required 100 warrant priority points and also meet the minimum cross street volume threshold of 75 vehicles per hour. Traffic signals at this intersection will provide a safe access point between the RM of Rosser and Brookside Boulevard with acceptable traffic delays.

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 TAC (2005) *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.

Based on an evaluation of all the conditions, advance warning flashers are recommended on the northbound and southbound approaches to the intersection.

FINANCIAL IMPACT

Cost Sharing Agreement between The City of Winnipeg and Rural Municipality of Rosser and Traffic Control Signal Installation for Brookside Boulevard and Jefferson Avenue

	2023	2024	2025	2026	2027
Capital					
Capital Expenditures Required	$ 356,564	$ -	$ -	$ -	$ -
Less: Existing Budgeted Costs	178,282	-	-	-	-
Additional Capital Budget Required	$ 178,282	$ -	$ -	$ -	$ -
Funding Sources:					
Debt - Internal	$ -	$ -	$ -	$ -	$ -
Debt - External	-	-	-	-	-
Grants (Enter Description Here)	-	-	-	-	-
Reserves, Equity, Surplus	-	-	-	-	-
Other - RM of Rosser	178,282	-	-	-	-
Total Funding	$ 178,282	$ -	$ -	$ -	$ -
Total Additional Capital Budget Required	$ 178,282				
Total Additional Debt Required	$ -				
Current Expenditures/Revenues					
Direct Costs	$ 3,256	$ 6,512	$ 6,512	$ 6,512	$ 6,512
Less: Incremental Revenue/Recovery	16,564	-	-	-	-
Net Cost/(Benefit)	$ (13,308)	$ 6,512	$ 6,512	$ 6,512	$ 6,512
Less: Existing Budget Amounts	(13,308)	6,512	6,512	6,512	6,512
Net Budget Adjustment Required	$ -	$ -	$ -	$ -	$ -

Additional Comments: Total estimated Capital Expenditures of $356,564 represents estimated total traffic signal costs of $340,000 plus departmental project administration and corporate interim financing charges. The RM of Rosser will pay 50% of these costs and 50% of these costs will be funded by the Transportation Engineering Improvements (Public Works Capital Project #1831000121).

Direct costs represent the estimated annual maintenance and operating costs plus interest on external debt. Incremental revenue/recovery represents the operating impact of the recovery of departmental project administration and corporate interim financing charges.

J. Ruby, 2023-01-19

J. Ruby CPA,CA
Manager of Finance & Administration

CONSULTATION

This Report has been prepared in consultation with:

- Legal Services (as to legal issues)

OURWINNIPEG POLICY ALIGNMENT

This report is in accordance with OurWinnipeg2045 as per:

- ***Policy 2.6 Integrated Regional Planning:*** Enable a collaborative and integrated solution to sustainable transportation system connectivity and efficiency on a regional scale, in a manner that addresses infrastructure costs, promotes public health benefits, and reduces greenhouse gas emissions.

WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

N/A

WINNIPEG POVERTY REDUCTION STRATEGY ALIGNMENT

N/A

SUBMITTED BY

Department:	Public Works
Division:	Transportation
Prepared by:	Keenan Patmore, M.Sc., P.Eng., Regional Traffic Engineer
	Greg Blatz, P.Eng., Traffic Management Engineer
Date:	January 20, 2023