Agenda – Council – July 13, 2023

Report – Standing Policy Committee on Public Works – June 26, 2023

Item No. 5 Proposed Funding Strategy for Multimodal Roadway and Bridge Infrastructure Renewal

STANDING COMMITTEE RECOMMENDATION:

On July 5, 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 Scenario 3 in Appendix A identifying dedicated property tax increases for the Local and Regional Street Renewal Reserves be adopted as a long-term funding strategy for Multimodal Roadway and Bridge Infrastructure renewal, up to and including 2027, and be referred to the 2024-2027 Multi-Year Capital Budget Process.

2. That the use of Local and Regional Street Reserves be expanded to fund the Road Safety Improvement Program, the Pedestrian and Cycling Program, and enhance funding for tree replacement and preservation on renewal projects.

3. That the Customer Levels of Service for roads, bridges, sidewalks, and pathways as identified in Table 02 of Appendix A be adopted.

4. That the long-term funding strategy and level of service be reviewed on a four-year cycle starting in the 2028 to 2031 budget cycle to coincide with the 2028-2031 Multi-Year Budget Process.

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

Report – Standing Policy Committee on Public Works – June 26, 2023

DECISION MAKING HISTORY:

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On July 5, 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 June 26, 2023, the Standing Policy Committee on Public Works concurred in the recommendation of the Winnipeg Public Service, with the following amendment:

- In Recommendation 1, add the words ", up to and including 2027," after the words "Bridge Infrastructure renewal"

and submitted the matter to the Executive Policy Committee and Council.

The following persons submitted communications with respect to the matter:

- David Grant
- Chris Lorenc, President and CEO, Manitoba Heavy Construction Association

ADMINISTRATIVE REPORT

Title: Proposed Funding Strategy for Multimodal Roadway and Bridge Infrastructure Renewal

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

AUTHORIZATION

Author	Department Head	CFO	CAO
B. Neirinck, P.Eng.	J. Berezowsky	C. Kloepfer	M. Jack

EXECUTIVE SUMMARY

The Local and Regional Street Renewal Reserves were initiated in 2013 and 2014 respectively to provide dedicated funding for street renewal with the goal of improving the condition of the roadway infrastructure. Since then, the funding strategy has evolved including its use being expanded to renewal of bridge infrastructure.

An updated long-term funding strategy for the Local and Regional Street Renewal Reserves is proposed to meet a recommended level of service for roadway condition by 2037. The funding strategy further proposes to expand the use of the Reserves for key transportation infrastructure programs including the Roadway Safety Improvement Program and the Pedestrian and Cycling Program as well as enhance funding for tree replacements and preservation on renewal projects.

The recommended long-term funding strategy identifies the following dedicated property tax increases up until 2037:

- In 2024, the allocation of the 2 percent annual dedicated increases for local and regional road renewal would change from 1.7 percent and 0.3 percent to 1 percent and 1 percent respectively.
- In 2029 the total annual dedicated 2 percent property tax increase requirement would begin a phased reduction culminating in at 0.5 percent in 2034.
- Assuming service level targets are met by 2037, no additional dedicated property tax increases for Street Renewal Reserve purposes are projected for 2038 and the foreseeable future thereafter.

Regional streets account for approximately 60% of the daily traffic activity, while non-regional streets (collectors/locals) account for the remaining 40%. In addition, despite regional roads carrying the majority of the traffic, they represent only a quarter of the total length of the road network. On average in 2022, regional streets carried 20,000 vehicle per day (vpd) which is 3 times the volume of collector streets (7,200 vpd) and 22 times the volume of local streets (900 vpd).

It is further proposed that the funding strategy and its effectiveness in achieving the proposed level of service be reviewed on a four-year cycle to coincide with the multi-year budget.

Beyond 2037, assuming the proposed funding strategy yields the target level of service, funding requirements for local and regional street renewals is projected to decrease significantly. At that time the level of service may be revisited to further improve it or reallocate the surplus funds to other priorities such as unfunded major capital projects, as directed by Council.

RECOMMENDATIONS

1. That Scenario 3 in Appendix A identifying dedicated property tax increases for the Local and Regional Street Renewal Reserves be adopted as a long-term funding strategy for Multimodal Roadway and Bridge Infrastructure renewal and be referred to the 2024 - 2027 Multi-Year Capital Budget Process.

2. That the use of Local and Regional Street Reserves be expanded to fund the Road Safety Improvement Program, the Pedestrian and Cycling Program, and enhance funding for tree replacement and preservation on renewal projects.

3. That the Customer Levels of Service for roads, bridges, sidewalks, and pathways as identified in Table 02 of Appendix A be adopted.

4. That the long-term funding strategy and level of service be reviewed on a four-year cycle starting in the 2028 to 2031 budget cycle to coincide with the 2028-2031 Multi-year Budget Process.

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

The Public Service is seeking Council approval of a revised long-term funding strategy and level of service for road, bridge, sidewalk, and pathway infrastructure.

Council approval is required to expand the use of Local and Regional Street Reserves to include the Road Safety Improvement Program, Pedestrian and Cycling Program and tree replacement and preservation on renewal projects.

Council approval is required to amend the percent allocation of dedicated tax increases to the Local and Regional Street Renewal Reserves.

IMPLICATIONS OF THE RECOMMENDATIONS

The proposed long-term funding strategy for Multimodal Roadway and Bridge Infrastructure Renewal (Appendix A) identifies annual dedicated property tax increases and service levels that would be subject to Council approval through the Multi-Year Budget Process.

If adopted, the dedicated property tax increases that were identified in the 2023 Capital Budget and Five-Year Forecast would be revised starting in 2024. The 2023 adopted capital budget identified an annual increase of 0.3 percent and 1.7 percent for the Regional and Local Street Renewal Reserves, respectively. No end date was specified for the total 2.0 percent annual property tax increases.

The recommended long-term funding strategy identifies dedicated property tax increases to 2037 (Table 1):

Beginning in 2024, the allocation of the 2 percent annual dedicated increases for local and regional road renewal would change from 1.7 percent and 0.3 percent, to 1.0 percent and 1.0 percent respectively:

- In 2029 the total annual dedicated 2 percent property tax increase requirement would begin a phased reduction culminating at 0.5 percent in 2034.
- Assuming service level targets are met by 2037, no additional dedicated property tax increases for Street Renewal Reserve purposes are projected for 2038 and the foreseeable future thereafter.

Table 1: Long-Term Funding Model proposed dedicated property tax increases

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Regional Reserve	0.30%	1.00%	1.00%	1.00%	1.25%	1.25%	1.00%	1.00%	0.50%	0.50%	0.50%	0.25%	0.25%	0.25%	0.25%
Local Reserve	1.70%	1.00%	1.00%	1.00%	0.75%	0.75%	0.75%	0.75%	0.50%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%
Total	**2.00%**	**2.00%**	**2.00%**	**2.00%**	**2.00%**	**2.00%**	**1.75%**	**1.75%**	**1.00%**	**0.75%**	**0.75%**	**0.50%**	**0.50%**	**0.50%**	**0.50%**

The proposed long-term funding strategy assumes 3% annual construction inflation, consistent with the threshold identified in Appendix 1 of the Supplement to the 2023 Budget. Projected revenues within the model include additional funding sources outside the Regional and Local Street Renewal Reserves. From 2024 to 2028, projected revenues from other sources include Frontage Levy and Canada Community-Building Fund funding consistent with the 2023 Adopted Budget (2024-2028 forecast) for related projects and programs. Beyond 2028, funding of $22.8 million annually from the Frontage Levy ($17.8 million) and Canada Community Building Fund ($5 million) is required in addition to the Local and Regional Street Renewal Reserves. Other sources of Federal and Provincial funding related to the Accelerated Regional Street Renewal Program in 2023 remain intact.

The available annual budget will grow from $179.0 million to $274.0 million between 2023 and 2037. The decrease in 2024 is attributed to the final year of budget adoption for the Federal and Provincial five-year Accelerated Roads Agreements in 2023.

The long-term strategy for funding Bridge Infrastructure assumes an average of $30.0 million annually, before inflation, starting in 2029. This would predominately be funded from the Regional Reserves. Bridge Infrastructure funding remains intact up to 2029 in accordance with the 2023 Capital Budget and Five-Year Forecast. This funding level is generally expected to fund bridge projects up to approximately $75 million in value. Bridge renewals beyond this value would, in whole or in part, be funded from other revenue sources or placed on the Unfunded Capital Projects List (Risk List).

Beginning in 2026, the proposed long-term funding strategy also includes funding for both the Road Safety Improvement Program and the Pedestrian and Cycling Program, which increase to $3.5 million in 2028, plus inflation annually thereafter. While these programs would receive funding through both the Local and Regional Reserves, it is proposed that the programmed locations be based on a prioritized list of projects regardless of whether it is on a Regional or Local Street. The prioritized list of pedestrian and cycling infrastructure is currently under review and refinement as part of the Pedestrian and Cycling Strategies update, as part of Transportation Master Plan 2050, expected to be completed in the spring of 2024. These amounts would be reviewed on a four-year cycle to coincide with the Multi-Year Budget Process (with the next report anticipated to be presented at the April 2027 SPC-PW meeting).

The long-term funding strategy also includes approximately $2.0 million plus inflation annually for tree replacement and preservation on renewal projects starting in 2024. The allocation of these funds would be based on prioritized need regardless of location and funding source; the overall allocation amount would be reviewed on a four-year cycle to coincide with the Multi-year Budget Process.

Sidewalk and active transportation renewal funding, not related to a road renewal project, will increase to $8.1 million plus inflation annually starting in 2027. Sidewalk and active transportation path service levels will be determined and reviewed on a four-year cycle to coincide with the Multi-Year Budget Process.

Finally, an opportunity exists to significantly improve the condition of alleys throughout the city. In order to meet the service levels identified below, funding would in 2025 increase from approximately $3.0 million annually up to approximately $20.0 million plus inflation through 2037.

HISTORY/DISCUSSION

Funding history

In 2013, Council adopted the Local Street Renewal Reserves which identified a 1 percent dedicated annual property tax increase to 2020, a 0.5 percent property tax increase in 2021, and sustained funding for 13 years thereafter by way of a $1/foot annual increase to the Frontage Levy.

In 2014, Council adopted the Regional Street Renewal Reserve which identified a 1 percent dedicated annual property tax increase to 2022 followed by 0.25 percent dedicated annual property tax increases thereafter to cover construction inflation.

Since 2014 there have been modifications to the funding strategy with the last modification in 2018. At that time, the long-term funding strategy was revised such that both the Local and Regional Street Renewal Reserves were funded each by 1 percent dedicated annual property tax increases to 2022. In 2023, the annual dedicated property tax allocation was increased to 1.70 percent for the Local Street Renewal Reserve and decreased to 0.3 percent for the Regional Street Renewal Reserve. No end date was identified for these annual increases.

In 2019, Council approved the use of the Local and Regional Street Renewal reserves for renewal of bridge infrastructure.

In 2019, the Province of Manitoba informed the City that provincial funding for road renewal would be solely dedicated to the Accelerated Regional Road Renewal Program, for which the final year of budget allocation is 2023. There is no assumed funding for road renewal from the Province beyond 2023.

The 2023 regional and local street program has increased by $128.2 million or 415 percent in comparison to the 2012 capital program (prior to the implementation of property tax increases dedicated to road infrastructure). As demonstrated in Figure 2 of Appendix A, the Local and Regional Street Renewal Reserves have had an overall positive effect in improving the condition of Local and Regional Streets. However, in 2012 an end goal sustainable and measurable service level had not been defined.

It is important to recognize that, in addition to renewal costs, annual operating and maintenance costs are incurred within the Roadway Construction and Maintenance service. Operating cost for paved roads per paved lane kilometre (hard top) is approximately $3,092 *(2021 Municipal Benchmarking Network Canada)*. This service includes activities such as pothole filling, joint sealing, crack-filling, and overlays. Total expenses incurred generally align with approved budgets in a given year rather than reflecting true needs. These budgets have remained relatively static over time, but it is anticipated that as new tools and technologies become available for enhanced data collection and analyses, there may be justification for budget adjustments in the future.

Furthermore, annual operating costs are incurred to provide Roadway Snow Removal and Ice Control services. The total cost for winter maintenance of roadways per lane kilometer in winter is $6,881 *2021 (Municipal Benchmarking Network Canada).* Annual costs for these services may significantly vary year over year dependent upon the amount of snowfall and general weather conditions.

Levels of service

Establishing Levels of Service (LOS) is identified as an objective in the *City's Asset Management Policy (FI-011),* and is a key strategic goal within the City's *Corporate Strategic Plan*. To that end, a Level of Service framework (Figure 1, Appendix A) has been developed by the Water and Waste Department in collaboration with the Corporate Asset Management Office to guide the development of current levels of service models and lifecycle costing for each city service in alignment with Council-approved organizational goals and objectives.

Renewal and replacement of road, bridge, sidewalk, and pathway infrastructure currently falls under the Roadway Construction and Maintenance service within the City's Service-Based Budget. Tables 1-3 of Appendix A outline the current and proposed corporate, customer and technical levels of service which are expected to be further developed and refined over time.

Since 2019, the Public Service has been working on developing achievable technical service levels for pavement considering several factors namely:

- Reviewing the deterioration rates of pavements.
- Refining the definition of pavement condition states based on cracking, spalling, rutting and drainage.
- Refining pavement renewal requirements based on the condition.
- Refining what surface material (concrete or asphalt) is appropriate for varying facilities.

- Developing additional rehabilitation treatments associated with existing asphalt pavements and alleys.
- Reviewing additional service life expectations for various renewal treatments.
- Reviewing renewal treatment costs.
- Considering reasonable budget expectations.
- Researching level of service targets from other jurisdictions.

It is noted that most jurisdictions including Manitoba Infrastructure and the cities of Calgary and Toronto have not yet defined technical service targets for pavement condition. Some Canadian jurisdictions, including Yukon, Medicine Hat, Airdrie and Edmonton limit their targets to 65 percent good on arterial streets and have no fair and poor targets.

Based on the foregoing, within a 15-year period to 2037, the proposed target technical level of service pavement condition identified on Table 3 of Appendix A are considered achievable as follows:

	Very good	Good	Fair	Poor/Very poor
Regional streets	10%	75%	10%	5%
Residential streets	5%	70%	15%	10%
Industrial streets	5%	70%	15%	10%
Alleys	5%	50%	30%	15%

A condition rating scale including representative photos of the different surface conditions is provided in Figure 4 of Appendix A.

In 2023 the Public Service is expected to update its pavement management system; this may automate condition rating techniques. The pavement service life models and levels of service will be reviewed on a four-year cycle to confirm whether targets are achieved.

Funding scenarios for renewals

Based on achieving the service levels identified above, the Public Service has considered three scenarios for renewals; these are outlined in Appendix A.

Each scenario includes a stacked bar chart identifying the cumulative program balances between 2023 and 2037 for the Local Program and the Regional Program. The goal is to balance the programs and not run an overall deficit or surplus for each of the programs.

Scenario 1 is the status quo with the funding strategy unchanged from what was presented in the 2023 Capital Budget. With funding increases to the local program of 1.7 percent annually, the cumulative surplus would be $860 million over the 15-year period. Conversely, with a 0.3 percent increase to the regional program, there would be a $385 million deficit over the same 15-year period. This scenario does not optimize the use of the dedicated property tax increases.

From a customer perspective, however, Winnipeggers under this scenario, would still benefit from a noticeable improvement to the look and feel of regional bridges and the local street network.

Scenario 2 includes the same infrastructure renewal requirements as Scenario 1 but with additional funding for trees and a revised funding strategy. Cumulative dedicated property tax increases are reduced from 2.0 percent to 1.75 percent starting in 2026 and gradually decrease to 0.25 percent in 2036. By 2037 there is no projected surplus or deficit. Overall, the forecasted cumulative dedicated property tax revenue for the 15-year period would be $3,294 million.

From a customer perspective, Winnipeggers under this scenario, would benefit from a noticeable improvement to the look and feel of the local and regional street and bridge network. The tree canopy would continue to beautify the city, connect people with nature, and help mitigate the heat island effect in an urban environment.

The recommended *Scenario 3* further adds funding for the Road Safety Improvement Program and the Pedestrian and Cycling Program beginning in 2026. Scenario 3 requires slightly higher dedicated property tax increases than Scenario 2, maintaining an annual 2 percent increase through 2028 and gradually decreasing to 0.5 percent by 2037. By 2037 there is a modest $1.0 million surplus. Overall, the forecasted cumulative revenue for the 15-year period would be $3,386 million. Refer to Table 4 in Appendix A for a breakdown of projected revenue and funding needs for this scenario.

The Roadway Safety Improvement Program generally encompasses stand-alone safety improvements on the existing Local and Regional Street network which are also undertaken on renewal projects. It includes traffic signal installations and improvements; roadside safety improvements; traffic calming measures; railway crossing safety improvements; installation of permanent pavement markings; and research studies and operational reviews.

The Pedestrian and Cycling Program generally includes new stand-alone sidewalk installations and active transportation (AT) infrastructure projects/studies where there is no road renewal project within their limits. Within road renewal projects, implementing new or improved AT infrastructure within the project limits often does not leave a logical end point for the AT infrastructure. Funding the Program with Reserve funds would allow for better planning and extensions of AT facilities beyond the renewal project limits. That is, it would allow more budgeting flexibility to accommodate logical extensions beyond project limits.

For each of the Bridge Program, Road Safety Improvement Program, and Pedestrian and Cycling Program, the amounts identified are considered an average annual amount and would be adjusted within the Capital Budget and five-year forecast to suit budget requirements of specific projects.

From a customer perspective, Winnipeggers under this scenario, would benefit from a noticeable improvement to the look and feel of the local and regional street and bridge network. The tree canopy would continue to beautify the city, connect people with nature, and help mitigate the heat island effect in an urban environment. People would feel safer on city streets; traffic congestion will be reduced; and there would be greater opportunities for Winnipeggers of all ages and abilities to become active.

Financial implications

Appendix C provides more detail on the amounts included in this report's Financial Impact Statement. Both the Road Safety Improvement program and the Pedestrian and Cycling program are continued through the period of the forecast with the funding source of these two programs becoming reserve funding beginning in 2026. Also, major bridge projects (generally

greater than $75 million) are not included in the program and would be budgeted as separate projects, likely requiring both Federal and Provincial support.

Appendix B provides further detail as to the estimated impact the proposed changes to the strategy will have on program funding and corresponding dedicated property tax increases. Under the new strategy, reserves funding for the roads program will continue to increase annually with estimated funding increasing by $124.8 million over 14 years from $126.4 million in 2024 to $251.2 million in 2037.

Further, while roads program reserve funding is increasing on an annual basis, it is at a lesser rate than had the 2.0 percent annual dedicated property tax increase been continued in perpetuity. From 2024 to 2037, the cumulative impact of the reduction in rate increases is significant. Adoption of this model would give additional flexibility to Council as to future property tax rates or ability to fund other services.

FINANCIAL IMPACT

Financial Impact Statement **Date:** May 23, 2023

Project Name: **First Year of Program** **2024**

Proposed Funding Strategy for Multimodal Roadway and Bridge Infrastructure Renewal

	2024	2025	2026	2027	2028
Capital					
Capital Expenditures Required	$ 171,200,000	$ 188,600,000	$ 187,500,000	$ 194,500,000	$ 205,800,000
Less: Existing Budgeted Costs	$ 171,900,000	$ 186,600,000	$ 192,700,000	$ 202,400,000	$ 206,100,000
Additional Capital Budget Required	$ (700,000)	$ 2,000,000	$ (5,200,000)	$ (7,900,000)	$ (300,000)
Funding Sources:					
Debt - Internal	$ -	$ -	$ -	$ -	$ -
Debt - External	-	-	-	-	-
Grants (Enter Description Here)	-	-	-	-	-
Reserves, Equity, Surplus	-	-	-	-	-
Other - Enter Description Here	-	-	-	-	-
Total Funding	$ -	$ -	$ -	$ -	$ -
Total Additional (Reduction) in Capital Budget Required	$ (12,100,000)				
Total Additional Debt Required	$ -				
Current Expenditures/Revenues					
Direct Costs	$ -	$ -	$ -	$ -	$ -
Less: Incremental Revenue/Recovery	(35,000)	100,000	(260,000)	(395,000)	(15,000)
Net Cost/(Benefit)	$ 35,000	$ (100,000)	$ 260,000	$ 395,000	$ 15,000
Less: Existing Budget Amounts	-	-	-	-	-
Net Budget Adjustment Required	$ 35,000	$ (100,000)	$ 260,000	$ 395,000	$ 15,000

Additional Comments: Additional detail to the amounts in the statement above can be found in Appendix C. The amounts above represent a best estimate of the impact of approving Scenario 3 of the new strategy. Property tax increases and reserve funding amounts will be approved by Council annually via the budget process. Only projects being impacted are included above, all other projects forecast in the 2024 to 2028 capital budget have been assumed to remain unchanged. Incremental Revenue/Recovery represents the estimated reduction in Public Works Departmental and Corporate Interest Overheads as a result of the proposed changes to capital budgets.

J. Ruby, 2023-06-01

J. Ruby, CPA, CA
Manager of Finance and Administration

CONSULTATION

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

OURWINNIPEG POLICY ALIGNMENT

Environmental Resilience
2.2 Climate Action Investment
Prioritize the long-term economic benefits of sustainability and climate action in municipal decision-making processes, including the budget, investment planning and procurement processes.

Good Health and Well-Being
4.10 Transportation Safety
Design, construct, maintain, and regulate an integrated and sustainable transportation system and related infrastructure that optimize safe, connected, and reliable mobility, and minimize severe injuries and fatalities for all road users.

WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

Strategic Opportunity #3 – 3.4 Increase Active Transportation Rates
Strategic Opportunity #3 – 3.5 Reduce Traffic Congestion

WINNIPEG POVERTY REDUCTION STRATEGY ALIGNMENT

Goal 6: All City Services are Equitable, Inclusive and Accessible

SUBMITTED BY

Department: Public Works
Division: Asset Management and Engineering
Prepared by: Lori Nichols, CPA, CGA, CAMP and Brad Neirinck, P.Eng.
Date: June 2, 2023

Attachments:
Appendix A – Proposed Funding Strategy for Roadway and Bridge Infrastructure

Appendix B – Impact in Regional and Local Streets Reserves

Appendix C – Summary of Capital Budget Impacts