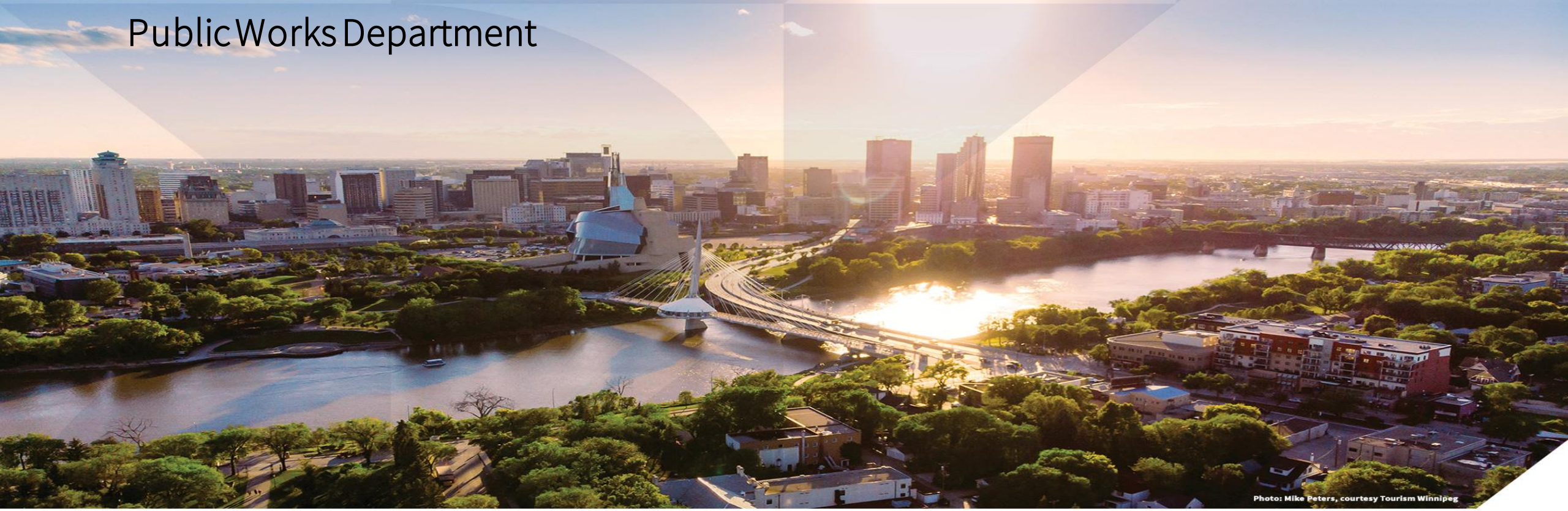
Proposed Funding Strategy

Multimodal Roadway & Bridge Infrastructure Renewal

Public Works Department



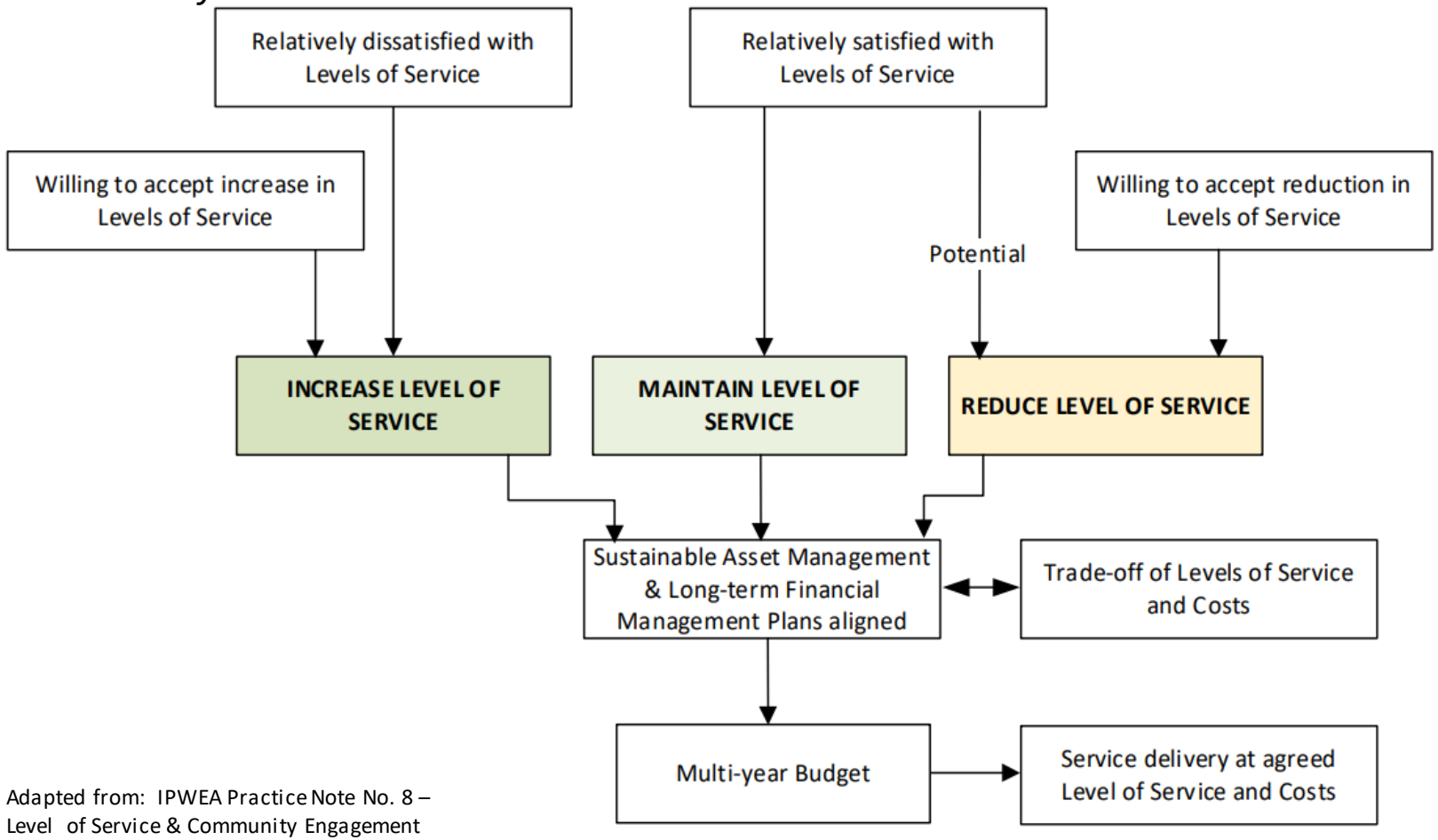
Winnipeg

June 26, 2023



Objective

Develop long-term funding strategy for multimodal roadway and bridge infrastructure renewal that balances target levels of service (LoS) with risk and affordability



Adapted from: IPWEA Practice Note No. 8 – Level of Service & Community Engagement

Administrative Report Recommendations

Recommendation	Strategic Priorities Action Plan (SPAP) Alignment*
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.	25, 27, 33
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.	25, 27, 33
3. That the Customer Levels of Service for roads, bridges, sidewalks, and pathways as identified in Table 02 of Appendix A be adopted.	25, 27, 33
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 of Winnipeg do all things necessary to implement the intent of the foregoing.	

** Key theme: A green and growing city with sustainable renewal of infrastructure*

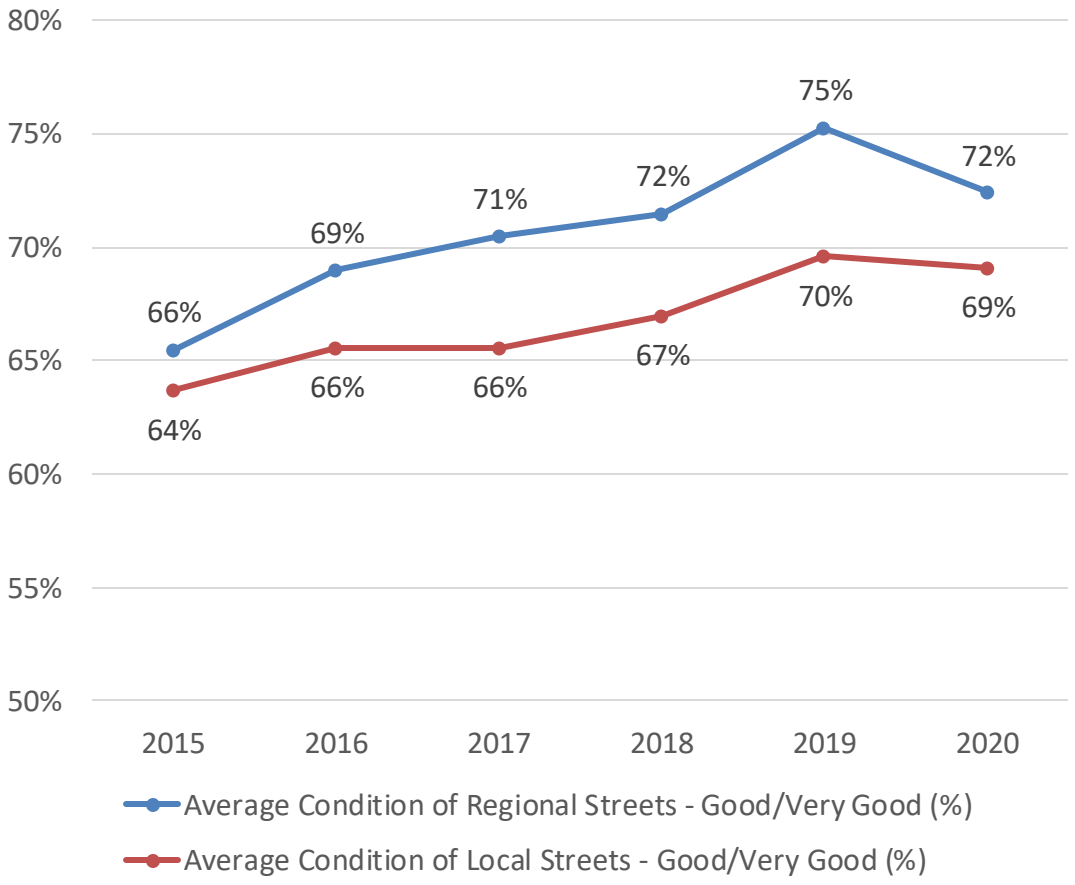
Decision history for regional and local street renewal funding



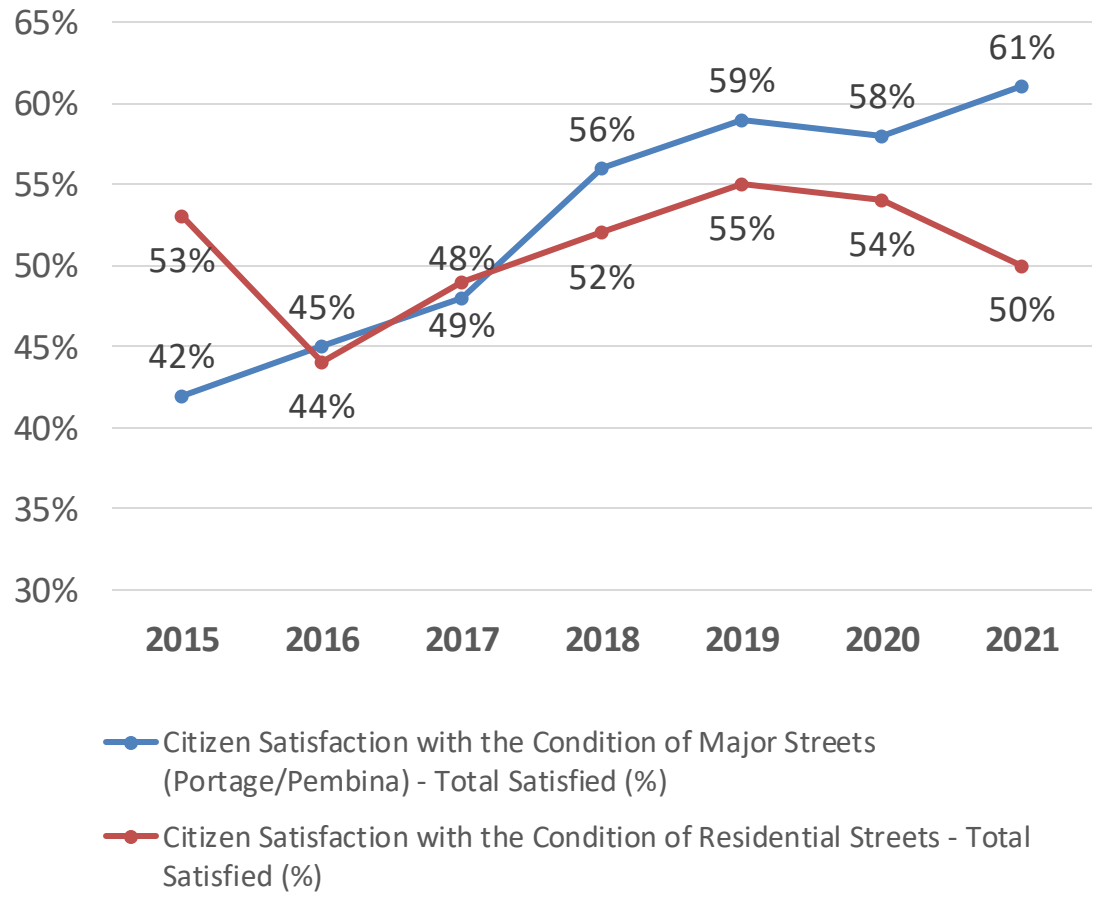
Year	Decision
2013	Council adopted the Local Street Renewal Reserve • 1% dedicated annual property increase to 2020 • 0.5% dedicated property increase in 2021
2014	Council adopted the Regional Street Renewal Reserve • 1% dedicated annual property tax increase to 2022 • 0.25% dedicated property tax increases thereafter
2018	Modifications led to: • Regional Road Renewal Reserve – 1% until 2022, 0.3% thereafter • Local Road Renewal Reserve – 1% until 2022, 1.7% thereafter
2019	Accelerated Regional Street Renewal agreements • Shared funding agreement, $100 million each over 5 years (2019-2023)
	Council approved the use of the Local and Regional Street Renewal reserves for renewal of bridge infrastructure
2023	Council approved additional $17.8 million annually in Frontage Levy to support the Regional and Local Street Renewal Program

Impacts to service delivery

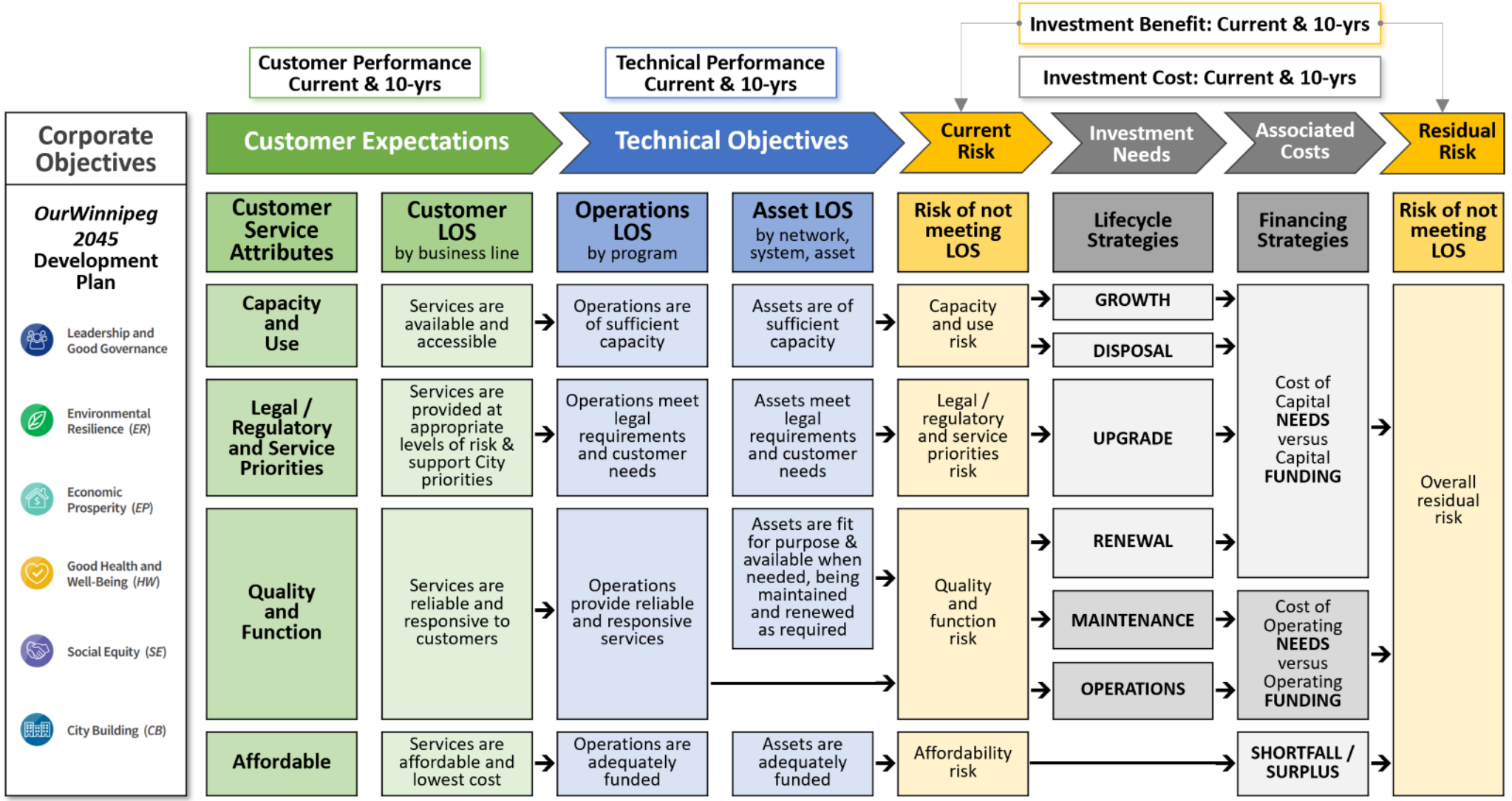
Condition of regional & local streets



Citizen satisfaction with the condition of major and residential streets



City of Winnipeg Level of Service Framework





Corporate Level of Service Statements

Roadway Construction & Maintenance

Proposed Level of Service Statements (key goals)		OurWinnipeg Alignment
RC-01	Provide resilient transportation infrastructure by ensuring the street, sidewalk and pathway networks are in 'good' condition, 'fit for purpose', and renewed at the optimum point in their lifecycle.	
RC-02	Ensure streets, sidewalks and pathways are safe and accessible at all times by providing timely, adequate maintenance to prevent costly alternatives.	
RC-03	Enable safe and resilient waterway crossings and grade separations by ensuring bridges and supporting infrastructure are maintained, meet all regulatory requirements and support alternative modes of transportation.	
RC-04	Design and construct new transportation infrastructure in an environmentally sustainable manner and address social and aesthetic considerations.	

Proposed Customer Level of Service Statements

Roadway Construction & Maintenance – Quality and Function

Customer Service Attribute	Customer Level of Service	2022 Customer Performance Grade
Quality and Function Services are reliable and responsive to customers	Major streets are well-maintained and kept in a safe condition for all users	Poor
	Paved residential street surfaces are kept in a safe condition for all users	Poor
	Paved alley surfaces are passable and kept in a safe condition for all users	Very Poor
	Bridges and underpasses are well-maintained and kept in a safe condition for all users	Poor
	Walking and cycling infrastructure is well-maintained	Future

Proposed Technical Level of Service
Roadway Construction & Maintenance

Customer Level of Service	Technical Level of Service	Current Technical Performance	Target Technical Standard	Data Confidence	Lifecycle Strategy	Key Goal Reference
Major streets are well-maintained and kept in a safe condition for all users	Average condition of regional streets (%): -Good/Very Good -Fair -Poor	 72% 21% 7%	 85% 10% 5%	High	Renewal	RC-01
Paved local street surfaces are kept in a safe condition for all users	Average condition of residential streets (%): -Good/Very Good -Fair -Poor	 70% 16% 13%	 75% 15% 10%	High	Renewal	RC-01
	Average condition of industrial streets (%): -Good/Very Good -Fair -Poor	 58% 17% 25%	 75% 15% 10%	High	Renewal	RC-01
Paved alley surfaces are passable and kept in a safe condition for all users	Average condition of alleys (%): -Good/Very Good -Fair -Poor	 33% 46% 20%	 55% 30% 15%	High	Renewal	RC-01

**Technical levels of service for sidewalks and pathways are currently under development*

Pavement Condition Rating Scale

Condition Rating Scale – Technical Levels of Service			
Type	**Very Good (new)/Good**	**Fair**	**Poor/Very Poor**
	Acceptable physical condition; minimal short-term failure risk, but potential for deterioration in the long term. Only minor work required.	Significant deterioration is evident; minor components or isolated sections of the asset need replacement or repair now, but the asset is still serviceable and functions safely at an adequate level of service.	Closure likely and substantial work required in the short term. Asset barely serviceable.
Regional			



Funding Scenarios to Meet Technical LoS Targets by 2037

THE MODEL

Assumptions and criteria for all three scenarios:

- 3% annual construction inflation applied
- include bridge projects less than $75 million
- unit costs for renewals include sidewalks, AT, traffic signals, engineering improvements, and utilities
- budget allocation for sidewalks and pathways increased
- funding sources include reserves, frontage levy and Canada Community-Building Fund assumptions
- reserves are maintained beyond 2037, with annual contributions equivalent to 2037 dedicated funding



Differences between Funding Scenarios

Recommended Scenario

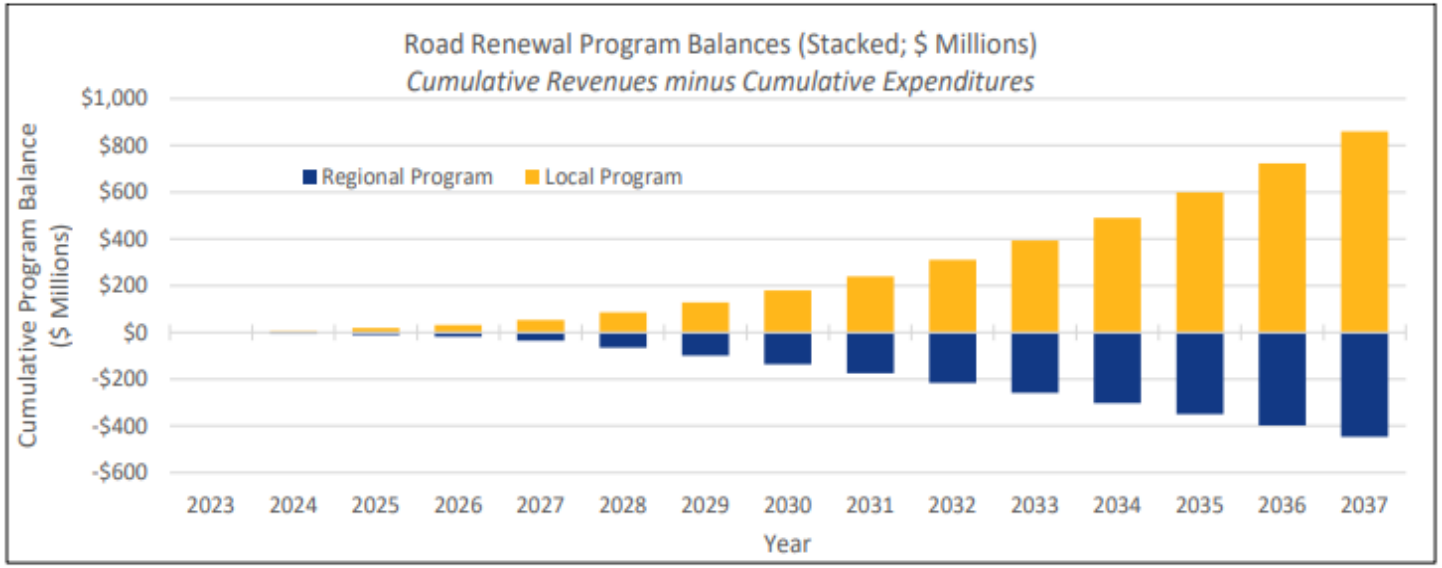
Criteria	Description	1	2	3
Dedicated tax allocation	Current budget forecast • Regional - 0.3% • Local – 1.7%	X		
	Adjusted to meet 2037 targets		X	X
Tree preservation/ replacements	Completed as part of street renewal projects		X	X
New infrastructure (outside road renewal)	Road safety improvements			X
	Pedestrian and cycling pathways			X

Scenario 1: Status quo, 15-year horizon (2023-2037)

- Dedicated 0.3% tax increase for regional street and bridge renewals in 2023 and beyond
- Dedicated 1.7% tax increase for local street renewals in 2023 and beyond

Dedicated property tax increase	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Regional street renewal reserve	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%
Local street renewal reserve	1.70%	1.70%	1.70%	1.70%	1.70%	1.70%	1.70%	1.70%	1.70%	1.70%	1.70%	1.70%	1.70%	1.70%	1.70%
Total regional and local reserves	**2.00%**	**2.00%**	**2.00%**	**2.00%**	**2.00%**	**2.00%**	**2.00%**	**2.00%**	**2.00%**	**2.00%**	**2.00%**	**2.00%**	**2.00%**	**2.00%**	**2.00%**

Regional and local road renewal program balance



Sustainability Indicator: Asset renewal funding ratio

(in millions $)	15-Year Revenue Forecast	Forecast Need	Surplus (+) / Deficit (-)	ARFR
Regional Street Renewal	$1,376	$1,761	-$385	78%
Local Street Renewal	$2,361	$1,501	$860	157%
Total Regional & Local	**$3,737**	**$3,262**	**$475**	**115%**

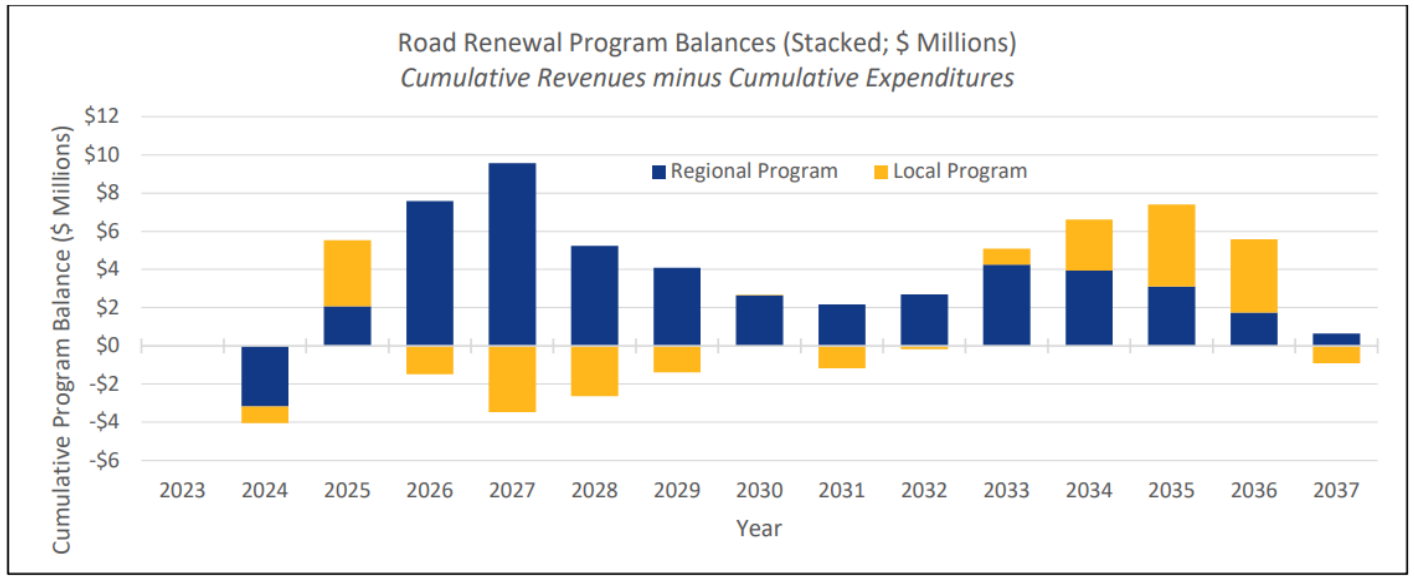
$$\frac{\textit{Capital Renewal Planned Budget for a period}}{\textit{Capital Renewal Forecast Outlays warranted for the period}}$$

Scenario 2: Percent allocation adjusted to breakeven, 15-year horizon (2023-2037)

- Dedicated tax increases adjusted to reflect regional and local street and bridge renewal needs, including tree preservation/replacement on street renewal projects

Dedicated property tax increase	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Regional street renewal reserve	0.30%	1.00%	1.00%	1.00%	1.00%	1.00%	1.25%	0.50%	0.50%	0.50%	0.50%	0.25%	0.25%	0.25%	0.25%
Local street renewal reserve	1.70%	1.00%	1.00%	0.75%	0.75%	0.75%	0.50%	0.50%	0.50%	0.50%	0.50%	0.25%	0.25%	0.00%	0.00%
Total regional and local reserves	**2.00%**	**2.00%**	**2.00%**	**1.75%**	**1.75%**	**1.75%**	**1.75%**	**1.00%**	**1.00%**	**1.00%**	**1.00%**	**0.50%**	**0.50%**	**0.25%**	**0.25%**

Regional and local road renewal program balance



Sustainability Indicator: Asset renewal funding ratio

(in millions $)	14-Year Revenue Forecast	Forecast Need	Surplus (+) / Deficit (-)	ARFR
Regional Street Renewal	$1,778	$1,777	$1	100%
Local Street Renewal	$1,516	$1,517	-$1	100%
Total Regional & Local	**$3,294**	**$3,294**	**$0**	**100%**

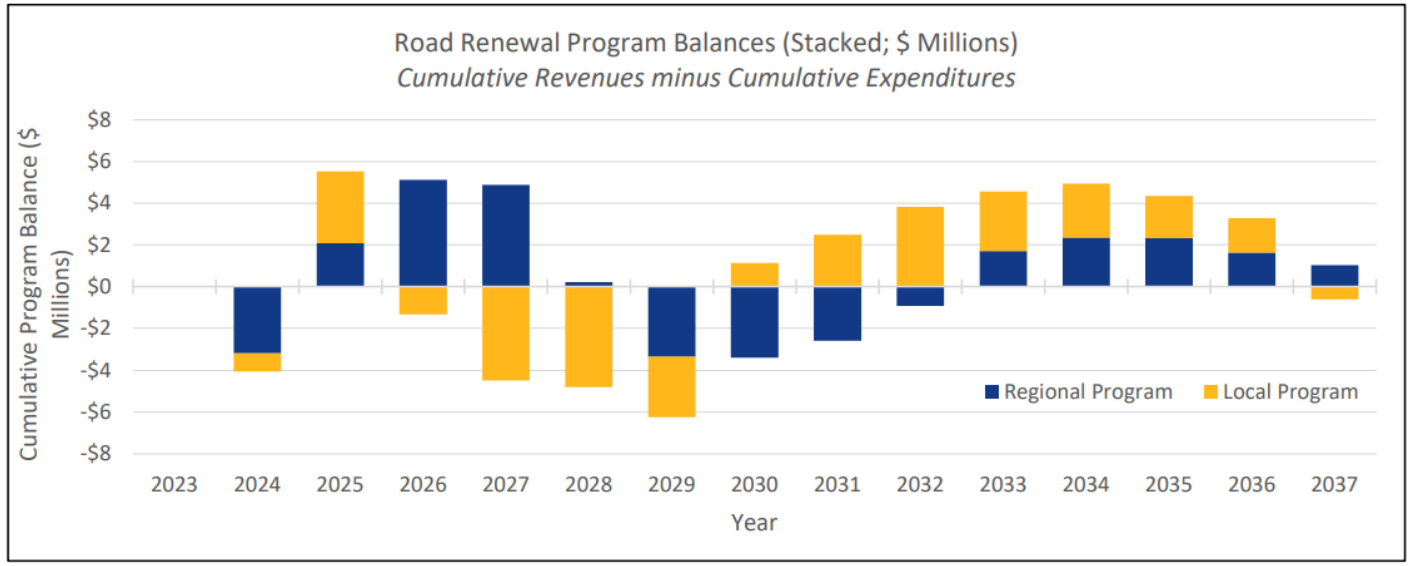
$$\frac{\textit{Capital Renewal Planned Budget for a period}}{\textit{Capital Renewal Forecast Outlays warranted for the period}}$$

Scenario 3: Addition of Roadway Safety Improvements and Pedestrian & Cycling Program at current funding levels, 15-year horizon (2023-2037)

- Dedicated tax increases adjusted to reflect regional and local street and bridge renewal needs, tree preservation/replacement, plus new infrastructure related to road safety and active transportation

Dedicated property tax increase	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Regional street renewal 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 street renewal 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 regional and local reserves	**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%**

Regional and local road renewal program balance



Sustainability Indicator: Asset renewal funding ratio

(in millions $)	14-Year Revenue Forecast	Forecast Need	Surplus (+) / Deficit (-)	ARFR
Regional Street Renewal	$1,831	$1,830	$1	100%
Local Street Renewal	$1,555	$1,555	$0	100%
Total Regional & Local	**$3,386**	**$3,385**	**$1**	**100%**

$$\frac{\textit{Capital Renewal Planned Budget for a period}}{\textit{Capital Renewal Forecast Outlays warranted for the period}}$$

Impacts of Proposed Change on Regional and Local Street Reserves

		2023	2024	2025	2026	2027	2028
2023 ADOPTED BUDGET	Regional Street Renewal Reserve	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%
	Local Street Renewal Reserve	1.70%	1.70%	1.70%	1.70%	1.70%	1.70%
	Total Dedicated Tax Increase	**2.00%**	**2.00%**	**2.00%**	**2.00%**	**2.00%**	**2.00%**
PROPOSED FUNDING MODEL	Regional Street Renewal Reserve	0.30%	1.00%	1.00%	1.00%	1.25%	1.25%
	Local Street Renewal Reserve	1.70%	1.00%	1.00%	1.00%	0.75%	0.75%
	Total Dedicated Tax Increase	**2.00%**	**2.00%**	**2.00%**	**2.00%**	**2.00%**	**2.00%**
VARIANCE	Regional Street Renewal Reserve	0.00%	0.70%	0.70%	0.70%	0.95%	0.95%
	Local Street Renewal Reserve	0.00%	(0.70%)	(0.70%)	(0.70%)	(0.95%)	(0.95%)
	Total Dedicated Tax Increase	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

Projected Revenue and Funding Needs from Long-Term Funding Model (2023-2037)

Estimated Funding Needs per Model *(in millions)*	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**Total**
Regional Street Renewals	87.6	66.7	69.4	69.4	76.6	75.7	77.6	80.8	82.8	84.9	87.0	89.9	91.4	92.9	93.7	**1,226.6**
Residential Street Renewals	47.3	45.9	44.6	49.9	50.2	51.8	53.5	55.3	60.8	61.7	64.8	64.9	66.0	67.0	70.3	**854.0**
Industrial Street Renewals	15.9	11.2	11.5	11.8	12.1	12.5	12.8	13.1	13.5	13.8	14.2	14.6	15.0	15.3	15.7	**203.2**
Alley Renewals	2.7	12.0	20.6	21.1	21.7	22.3	23.4	24.9	25.6	26.1	26.9	27.6	28.4	28.8	29.0	**341.1**
Sidewalk and Pathway Renewals	5.5	4.3	4.5	6.8	8.1	8.3	8.6	8.9	9.1	9.4	9.7	10.0	10.3	10.6	10.9	**124.9**
Bridge Infrastructure Renewals	20.5	30.3	22.3	24.3	20.2	31.0	35.8	36.9	38.0	39.1	40.3	41.5	42.8	44.1	45.4	**512.5**
Roadway Safety Improvements Program	-	-	-	1.5	3.7	3.5	3.6	3.7	3.8	3.9	4.0	4.2	4.3	4.4	4.5	**45.1**
Pedestrian and Cycling Program	-	-	-	2.5	3.3	3.5	3.6	3.7	3.8	3.9	4.0	4.2	4.3	4.4	4.5	**45.7**
Tree Replacement and Preservation on Renewal Projects	-	1.9	1.9	2.0	2.0	2.1	2.1	2.2	2.3	2.3	2.4	2.5	2.6	2.6	2.7	**31.7**
Sub-total	**179.5**	**172.3**	**174.8**	**189.4**	**198.0**	**210.8**	**221.1**	**229.5**	**239.7**	**245.3**	**253.4**	**259.2**	**264.9**	**270.1**	**276.9**	**3,384.7**
Projected in-year Surplus/(Shortfall) in the model*	-	(4.0)	9.7	(1.8)	(3.4)	(4.9)	(1.5)	4.2	2.2	3.1	1.7	0.4	(0.6)	(1.1)	(2.9)	**1.2**
TOTAL	**$179.5**	**$168.2**	**$184.5**	**$187.6**	**$194.7**	**$205.9**	**$219.5**	**$233.6**	**$242.0**	**$248.4**	**$255.1**	**$259.6**	**$264.3**	**$269.1**	**$274.0**	**$ 3,385.9**



Questions and thank you!