## Options for Creation of a New Dedicated Renewal Fund

At the June 13, 2023 Council meeting, the following motion was made:

That Administration, as part of the Fall 2023 Supplemental Budgets, provides options to fund the introduction of a new multi-year Dedicated Renewal Fund with successive annual tax increases.

This attachment is Administration's response to the motion, and provides four options for the implementation of a new Dedicated Renewal Fund.

### Executive Summary

The City of Edmonton owns an inventory of assets with a combined replacement value of over $34 billion, which includes facilities, roads, open spaces, vehicles, technology, and equipment. These assets support the delivery of 70 services to Edmontonians, such as public transit, recreation, police, fire rescue services and transportation services.

The Capital Investment Outlook: 2023-2032[1] presented to Council in June 2022, identified an ideal renewal investment over the 10-year period of $10 billion and a forecasted funding level of $5.2 billion, leaving a $4.8 billion infrastructure gap. As part of the 2023-2026 Capital Budget approved by Council in December 2022 and based on the available funding, the assets with renewal funded through unconstrained funding only received approximately 31 per cent of their ideal renewal investment requirements. Consequently, the City's overall inventory of assets is forecasted to deteriorate such that 20 per cent or more will be in poor or very poor condition within approximately 20 years.

A new Dedicated Renewal Fund (DRF), similar to the Neighborhood Renewal Program, would provide a consistent and increased level of renewal funding, allowing Administration to proactively plan and deliver renewal projects. The DRF would be funded through successive tax increases that increase annual revenue from taxes until the required target amount. The dedicated tax increases are not unique levies but rather general tax revenue raised for and dedicated to funding a specific program. A DRF is simply an annual tax increase that is approved over a period of time that is allocated to a specific reserve through a policy.

Administration is proposing four options for a DRF:

1. **Dedicated Universal Renewal Fund (DURF):** Dedicated fund for renewal of all City of Edmonton owned assets not funded by other dedicated funding

[1] Capital Investment Outlook: 2023-2032

sources such as Neighbourhood Renewal Reserve or Fleet Reserve. The allocation of renewal investment would be determined by Administration based on various criteria, including physical condition, risk, operational and maintenance data and input, and service delivery impacts.

2. **Dedicated Facilities Renewal Fund (DFRF):** Dedicated fund for renewal of all City of Edmonton owned facilities and City of Edmonton owned affordable housing. This excludes waste facilities, as these are funded through utility rates.

3. **Dedicated Transit Renewal Fund (DTRF):** Dedicated fund for renewal of all City of Edmonton owned transit service assets including fleet, facilities, bridges, tunnels, trains, tracks and program technology.

4. **Dedicated Bridges Renewal Fund (DBRF):** Dedicated fund for renewal of all City of Edmonton owned bridges, tunnels and auxiliary structures. Bridges and tunnels that primarily support transit assets are included within the funding target for this option.

All unconstrained renewal capital funding (e.g. funding not allocated to the Neighborhood Renewal Program and Fleet) is currently pooled and allocated to various renewal programs across the corporation. A new dedicated renewal fund, regardless of which option is chosen, is intended to provide funding that is over and above existing renewal funding levels. The renewal of certain assets that were previously funded through the corporate pool will now be funded by the new dedicated fund. This will free up funding from the corporate pool and allow that available funding to be reallocated to the renewal of other assets, and ultimately reduce the renewal funding gap.

For each of the four dedicated renewal options, Administration calculated the number of years to achieve the ideal renewal investment based on the following three tax increase scenarios: 1%,  0.75%, and 0.25% to 1% increases. These are ***successive*** tax increases; i.e. an increase is applied each year until the target funding level is reached.

Using an example rate of a 1% successive increase annually, the following shows the projected value of the tax increase, and the resulting annual contribution to the Dedicated Renewal Fund:

| ($ millions) | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|---|---|---|---|---|---|---|---|---|---|---|
| Value of 1% Increase | 21.1 | 22.4 | 23.7 | 24.8 | 26.0 | 27.2 | 28.5 | 29.8 | 31.2 | 32.7 |
| Resulting DRF Revenue | 21.1 | 43.5 | 67.2 | 92.0 | 118.0 | 145.2 | 173.7 | 203.5 | 234.7 | 267.4 |

Note: Amounts are in 2023 dollars and does not include cost escalation.

The 1% and 0.75% increase scenarios use a consistent rate for the annual successive increase. The 0.25% to 1% increase scenario is a phased successive tax increase which progresses from 0.25% to 1% as follows:

| 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | Future |
|---|---|---|---|---|---|---|---|---|---|
| 0.25% | 0.25% | 0.5% | 0.5% | 0.5% | 0.75% | 0.75% | 0.75% | 1.0% | 1.0% |

Figure A provides a summary of the dedicated renewal fund options. The target level of funding can be reached within four to 20 years depending on which tax increase scenario is chosen.

Figure A: Summary of Dedicated Renewal Fund Options and Timelines to Fully Fund Based on Tax Increase Model

| Successive Tax Increase Rates | | Dedicated Renewal Fund Options | | | |
|---|---|---|---|---|---|
| | | Universal | Facilities | Transit | Bridges & Aux |
| | | $480 million | $225 million | $170 million | $75 million |
| Years to Fully Fund DRF | 1.0% | 16 | 9 | 7 | 4 |
| | 0.75% | 20 | 11 | 9 | 5 |
| | 0.25% to 1.0% | 18 | 12 | 11 | 7 |

Note: Amounts are in 2023 dollars and does not include cost escalation.

## Evaluation

Building a dedicated renewal fund could start as early as 2024 if approved in the Fall Supplementary Operating Budget. Dedicating funding will require the approval of a policy and reserve. If Council provides a motion for Administration to develop a policy and tax increases to create a new dedicated renewal fund through successive annual tax increases, the policy could be completed by June 2024.

The four proposed options have been ranked based on the level of impact to the renewal program. The tax increase rates selected for each option reflect a balance between limiting tax tolerances with the time required to achieve the options target revenue. The ranking of the proposed options and related successive tax increase option for consideration are as follows:

1. Dedicated Universal Renewal Fund with 0.25% to 1% successive annual tax increases. Because the time to achieve the DRF target is similar between the various increases, a slower increase was selected for this option.
2. Dedicated Facilities Renewal Fund with 0.25% to 1% successive annual tax increases. Because the time to achieve the DRF target is similar between the various increases, a slower increase was selected for this option.
3. Dedicated Transit Renewal Fund with 0.75% successive annual tax increases. The selected increase rate minimizes the time required to achieve the DRF target
4. Dedicated Bridges Renewal Fund with 0.75% successive annual tax increases. The selected increase rate minimizes the time required to achieve the DRF target

## Background

The City of Edmonton owns an inventory of assets including facilities, roads, open spaces, vehicles, technology and equipment. These assets, with a combined replacement value of over $34 billion, support the delivery of 70 services to Edmontonians, such as public transit, recreation, police, fire rescue services and transportation services. Assets are critical to the successful delivery of these services and need to be maintained to ensure they are safe, functional and meet the changing needs of the services they support.

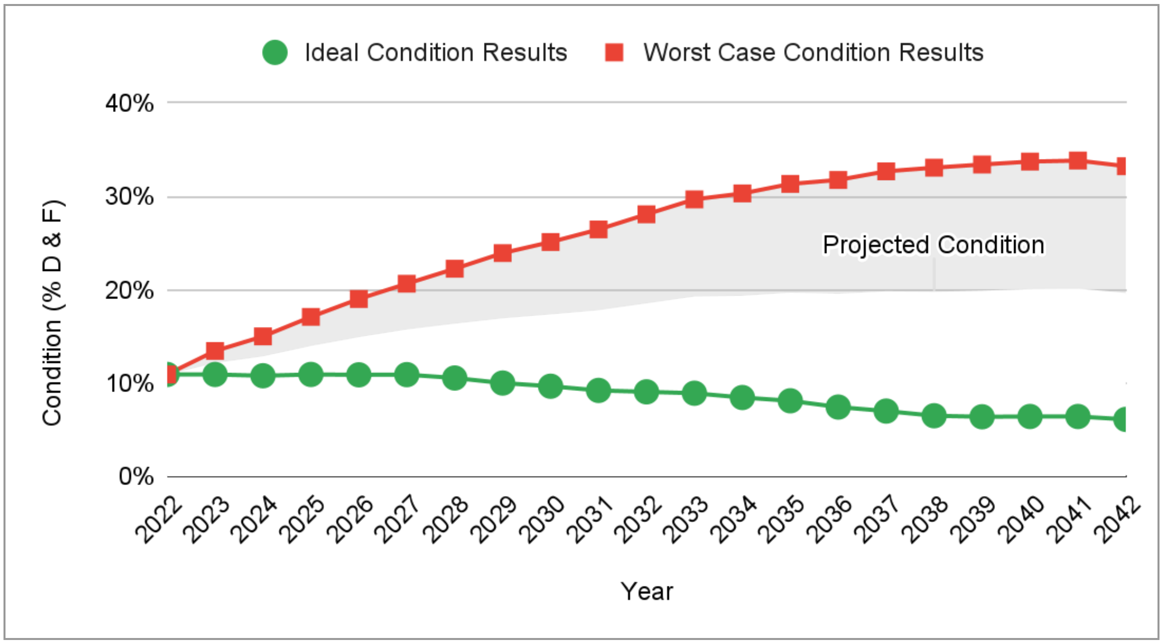
An analysis conducted to support the Capital Investment Outlook: 2023-2032[2] identified an ideal investment requirement for this inventory of approximately $10 billion over the 10 year period. This ideal requirement exceeds the forecasted amount available to renewal over the same period by approximately $4.8 billion. As a consequence, only 54 per cent of the ideal renewal funding requirements are being addressed. However, neighbourhoods and fleet have dedicated funding allocations which equates to nearly half of the funding available to renewal. When factoring out these assets and their dedicated funding, the remaining assets received as low as 24 per cent of the ideal renewal funding.

Asset condition forecast scenarios were developed using the Risk Based Infrastructure Management System (RIMS) to understand the impacts of the current projected funding levels on the inventory of assets. The chart in Figure B below provides a forecast of assets in Poor [D] and Very Poor [F] condition based on an ideal investment and a worst case scenario. Based on the current projected renewal investment levels, maintenance activities and service levels, the forecasted amount of assets to be in D and F condition would fall somewhere in the grey area. Various factors influence the condition of assets, including maintenance levels, utilization rates, service delivery standards or environmental factors. The grey area takes into consideration that these factors are subject to change over time, and have an impact on the ultimate condition of the assets.

The green circles in the chart show the forecasted conditions based on ideal investment, while the red squares show the asset conditions based on a worst case scenario. The worst case scenario assumes a reduction in maintenance, an increase in utilization, more demanding service delivery standards and increased wear from environmental influences.

[2] Capital Investment Outlook: 2023-2032

Figure B: Forecast of assets in Poor [D] and Very Poor [F] condition




Even using the anticipated average condition results as the measure for projected asset condition, this leaves the City in an untenable position of having 20 per cent, or one fifth of its inventory, in Poor [D] and Very Poor [F] condition. Since 2011, it took a decade of significant investment to improve from 17 per cent to 10 per cent% with a smaller inventory of assets. The investment that would be required to improve from a projected 20 per cent D&F condition in 2040 back down to 10 per cent D&F could require nearly double today's ideal investment requirements.

## Dedicated Renewal Fund Options

Ensuring a consistent and appropriate level of renewal investment funding is imperative to ensuring the City's critical assets remain in a safe, usable condition. One solution to address the funding variability is the creation of a dedicated source of funding for renewal. The City of Edmonton has two working examples of this, the Fleet Reserve Fund and the Neighborhood Renewal Fund. Both are constrained funds which can only be used for the replacement or renewal of specific assets and are safeguarded against variable shifts in the available funding for renewal.

The assets provided with dedicated renewal funding have an advantage over the rest of the asset pool as they have protection against variances in funding levels, ensuring that renewal activities are always funded to the appropriate level. Knowing how much funding will be available in the future enables better long range strategic investment decisions. For this reason, options for a new dedicated renewal fund are being considered to help support the rest of the asset portfolio.

A new Dedicated Renewal Fund (DRF), similar to the Neighborhood Renewal Program, would allow Council to increase tax revenue and dedicate it toward renewal, either toward a specific set of assets, or to the entire portfolio, enabling Administration to plan and deliver renewal projects to proactively improve overall asset condition. The DRF would be funded through a dedicated portion of tax revenues built up from successive tax increases until such a time that the annual revenue from taxes reaches the target set for the selected DRF. A DRF is simply an annual tax increase that is approved over a period of time that is allocated to a specific reserve through a policy.

Four options are being considered for the creation of a new Dedicated Renewal Fund. Each will result in an overall increase to the amount of funding allocated to renewal investment. One option offers maximum flexibility for renewal allocation, and the three other options are directed towards renewal of specific groups of assets. The four options are as follows:

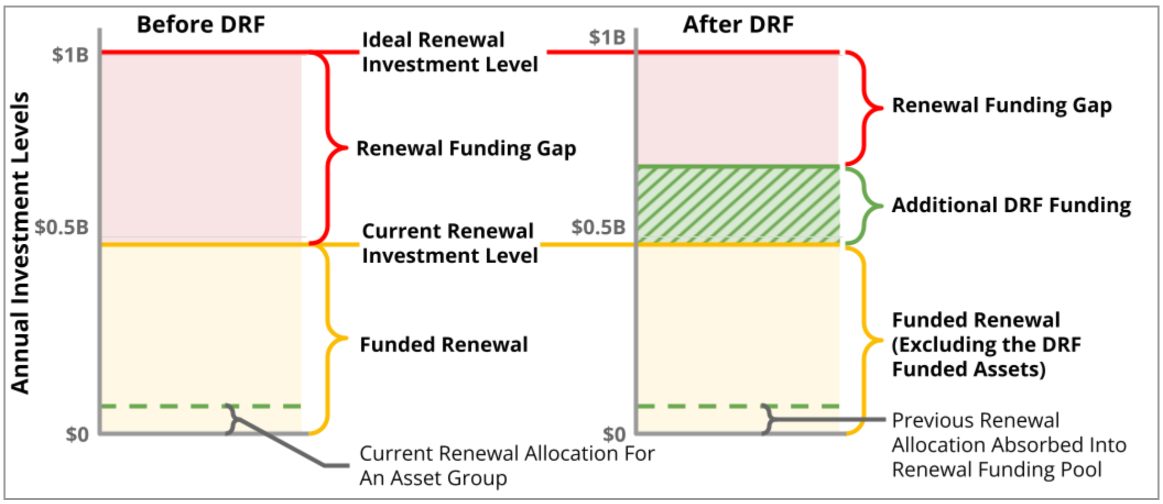
1. **Dedicated Universal Renewal Fund (DURF):** Dedicated fund for renewal of all City of Edmonton owned assets not funded by other dedicated funding sources such as Neighbourhood Renewal Fund or Fleet Reserve. The allocation of renewal investment would be determined by Administration based on various criteria, including physical condition, risk, operational and maintenance data and input, and service delivery impacts.
2. **Dedicated Facilities Renewal Fund (DFRF):** Dedicated fund for renewal of all City of Edmonton owned facilities and City of Edmonton owned affordable housing. This does not include waste facilities, as these are funded through utility rates.
3. **Dedicated Transit Renewal Fund (DTRF):** Dedicated fund for renewal of all City of Edmonton owned transit service assets including fleet, facilities, bridges, tunnels, trains and tracks.
4. **Dedicated Bridges Renewal Fund (DBRF):** Dedicated fund for renewal of all City of Edmonton owned bridges, tunnels and auxiliary structures.

The creation of a Dedicated Renewal Fund not only provides dedicated funding to certain assets, but it also helps support the overall renewal program. All unconstrained renewal capital funding (e.g. funding not allocated to the Neighborhood Renewal Program and Fleet) is currently pooled and allocated to various renewal programs across the corporation. A new dedicated renewal fund, regardless of which option is chosen, is intended to provide an increase in funding over and above existing renewal funding levels. A dedicated renewal fund would free up funding from the corporate pool and allow that available funding to be reallocated to the renewal of other assets and ultimately reduce the renewal funding gap.

Figure C below depicts the change from the current renewal funding structure to a new funding structure. The graph on the left shows the current situation with an ideal renewal investment level of approximately $1 billion and a renewal funding gap of $480 million. It also depicts an allocation from the funded renewal to a specific asset group.

The graph on the right shows the impact of a new dedicated renewal fund. The dedicated renewal fund is added to the existing funded renewal, reducing the renewal funding gap, and the amounts that were previously allocated to a specific asset group are freed up to be used to renew other assets.

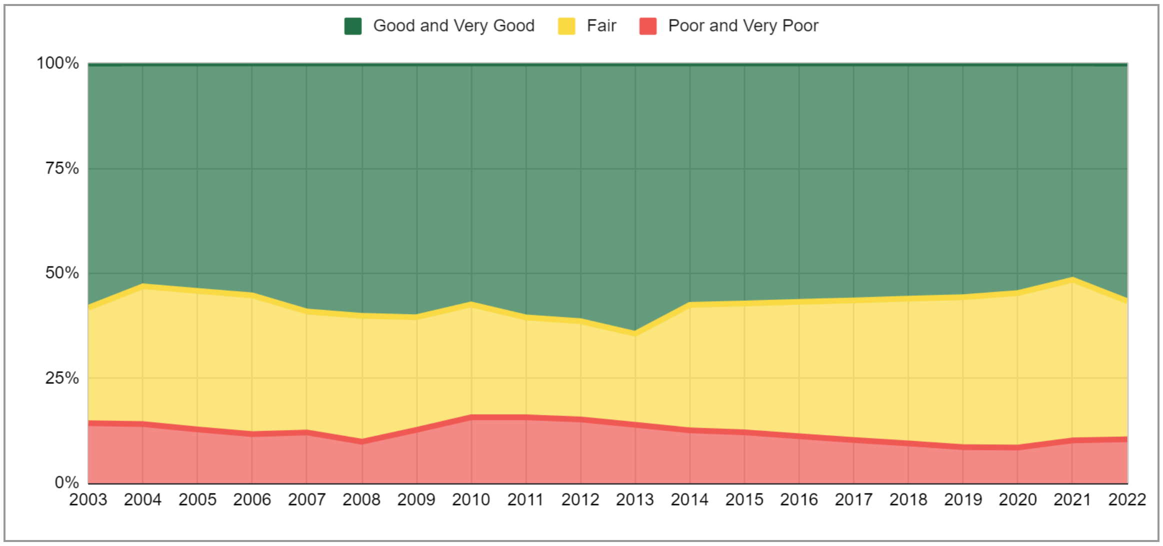
Figure C: Impact to Renewal Investment with the Creation of a new Dedicated Renewal Fund




## Dedicated Universal Renewal Fund

The following chart shows the progression of asset condition ratings over a period of 20 years. In the years previous to 2011, during the province's last big financial boom, more focus was directed toward growth projects than renewal projects. As a result, the City had many new assets, but its existing assets did not get the required attention and many fell into disrepair. Since this time, the City has strategically moved from rapid growth and upgrade to a more balanced approach, with measured growth and focused renewal, resulting in a significant reduction of assets in Poor and Very Poor condition to today’s mark of approximately 10 per cent.

Figure D: City of Edmonton Historical Asset Condition Distribution

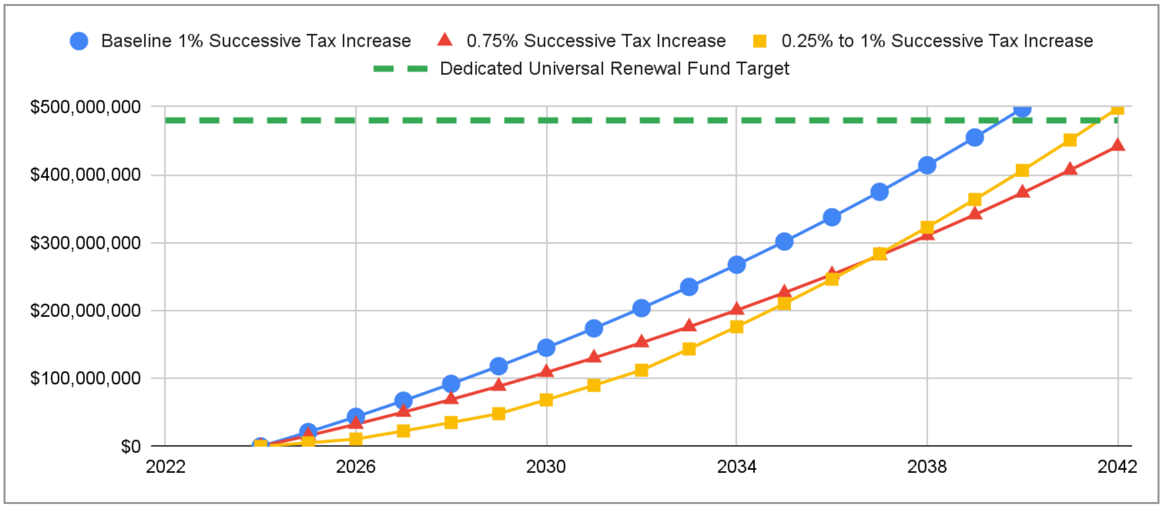



The City manages the renewal of its portfolio of assets as a combined pool of various asset classes. Each asset type is analyzed for its own renewal needs and within that analysis is a consideration for the level of importance that asset type has on the City overall, and for the service which it supports. The understanding of the relative priority between assets, and their respective renewal needs allows Administration to prioritize and allocate funding to renew all of the City's assets within the funding available.

A Dedicated Universal Renewal Fund will offset the gap between the current level of funding and the ideal funding requirements. Of the four options presented, this will be the largest of the dedicated renewal funds, however, when implemented, will result in the greatest possible outcome for the City's renewal programs. Additionally, as this fund is allocated universally to renewal of assets, it allows Administration the flexibility to adjust allocations from one asset type to another to accommodate urgent failures, resource capacity, market conditions or adjacent projects. For instance, if in one cycle, the price of steel increased dramatically, while the price of asphalt remained low, Administration could move some allocation from bridge assets to arterial roads in that cycle to maximize the benefits of the funding available. Any decisions to adjust allocations would require an analysis of risks and benefits to the assets and to the services they support.

The average annual ideal renewal invest gap for the renewal program is $480 million based on a 10 year average of investment. This value assumes the level of funding currently made available to the renewal program persists each cycle. This amount does not include escalation costs or growth of the inventory during this time period. Once the target value has been achieved, an occasional recalibration may be required to account for these changes. Based on the forecasted tax generated revenues, an annual successive tax increase would take between 16 and 20 years to fully fund the DURF investment target depending on the amount of the tax increase.

Figure E: Dedicated Universal Renewal Fund Time to Generate Fund Target




## Dedicated Renewal Fund per Asset

The options to advance Dedicated Renewal Fund specific to a group of assets (facilities, bridges and transit) were discussed in the October 17, 2022, Integrated Infrastructure Services report IIS01338 Options for a New Dedicated Tax Levy.

### A. Dedicated Facilities Renewal Fund

The facilities portfolio has a total estimated replacement value of $8.4 billion, nearly one quarter of the City's overall replacement value. In the context of the City's assets, facilities are some of the most complex assets, made up of various interconnected systems and components having different lifecycles and maintenance strategies. Every facility is different in construction, function, configuration, and level of impact to service delivery, so the lifecycle decisions made for these assets are extremely complex.

Approximately 56 per cent of the facilities portfolio is currently in Fair condition. The remainder of the inventory is in Very Good and Good condition, and a minimum amount is currently in Poor and Very Poor condition. At first glance, this may not raise concerns, however, a further breakdown of the facilities in Fair condition identifies the impending risk.

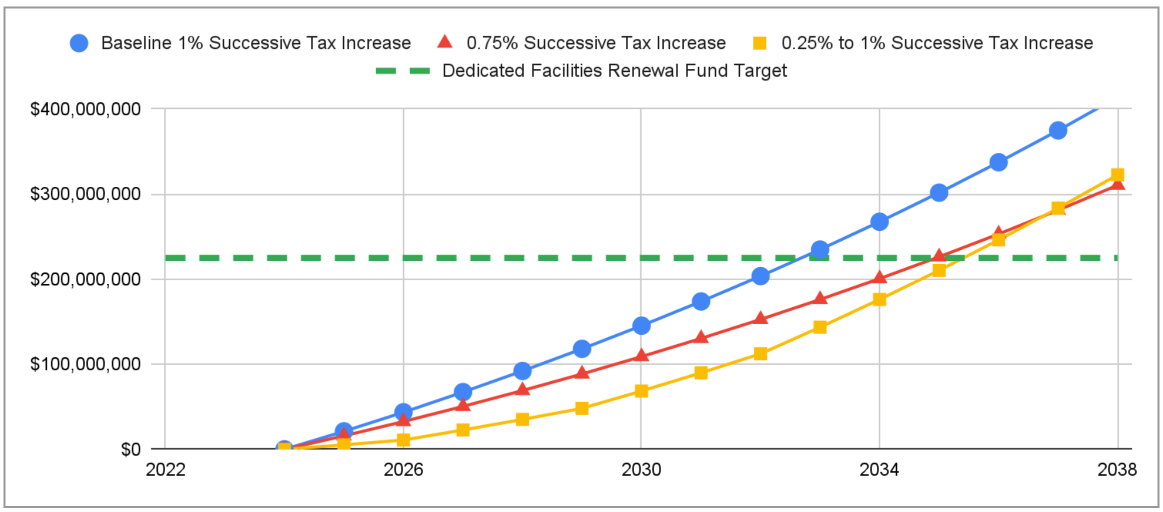
As part of 2023-2032 Capital Investment Outlook, Administration identified a 10 year ideal renewal investment target of approximately $2.13 billion, or $213 million annually. In contrast, the amount of new funding allocated for facilities renewal in

2023-2026 equated to approximately $41 million annually, significantly lower than the ideal investment requirements. With adequate investment and proper timing of renewal, a facility can last well beyond its expected useful life. However, at the current projected investment levels identified through the Capital Investment Outlook: 2023-2032, many of these facilities will not receive adequate renewal investment and their risk of failure will continue to increase as they age.

The current estimated average annual ideal renewal investment for facilities assets is $225 million based on a 10 year average of investment. This amount does not include escalation costs or growth of the inventory during this time period. Once the target value has been achieved, an occasional recalibration may be required to account for these changes.

Based on the forecasted tax generated revenues, an annual successive tax increase would take nine to 12 years to fully fund the DFRF investment target depending on the amount of the tax increase.

Figure F: Dedicated Facilities Renewal Fund Time to Generate Fund Target

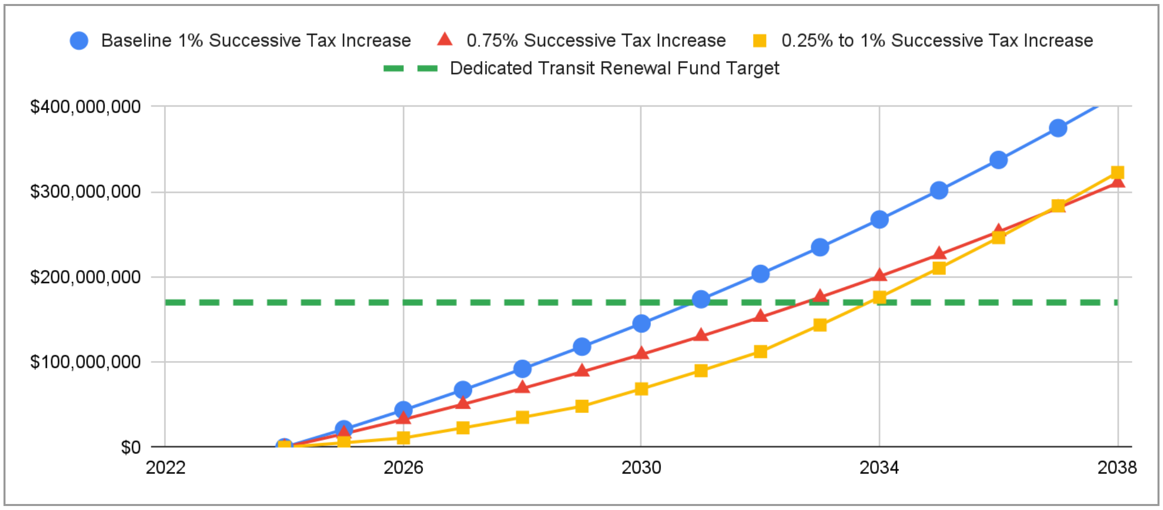



## B. <u>Dedicated Transit Renewal Fund</u>

The portfolio of transit assets includes bus fleet and equipment, Light Rail Vehicles, track and equipment, LRT Systems, transit facilities and transit stops. The portfolio has a total estimated replacement value of $3 billion, nearly one tenth of the City's overall replacement value. Transit assets are critical to the achievement of the City's strategic goals by enabling the movement of people throughout the City, supporting economic development and enabling a shift in transportation mode to help lower the City's carbon footprint. The performance and reliability of these assets are directly linked to the City's ability to deliver its transit service. A failure in one of these assets has ripple effects throughout the service and the City as a whole.

The average annual ideal renewal investment for transit service assets is $170 million based on a 10 year average of investment. This amount does not include escalation costs or growth of the inventory during this time period. Once the target value has been achieved, an occasional recalibration may be required to account for these changes. Based on the forecasted tax generated revenues, an annual successive tax increase would take seven to 10 years to fully fund the DTRF investment target depending on the amount of the tax increase.

Figure G: Dedicated Transit Renewal Fund Time to Generate Fund Target



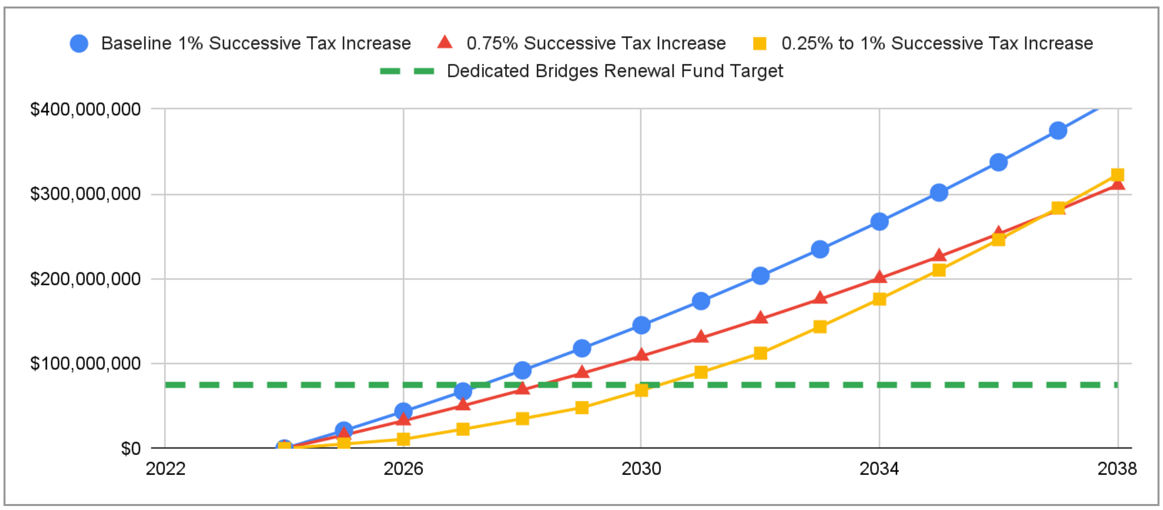

## C. <u>Dedicated Bridges Renewal Fund</u>

The bridges and auxiliary structures portfolio includes bridges, culverts, tunnels, noise and retaining walls, and stairs within open space. The bridges and auxiliary structures portfolio has a total estimated replacement value of $2.9 billion. Overall, the portfolio is in Fair condition with 0.41% in Very Poor condition. This is a result of the roadside structures in the portfolio. Bridge assets themselves are managed to prevent any assets falling into Very Poor condition. Bridge assets are critical to enabling goods and people movement and many of the City's services such as transit, recreation, police and fire protection. Bridge assets provide access across waterways, major roadways or rail lines, ensuring all areas of the city are accessible with limited interruption. The effects of bridge closures are felt citywide when one roadway bridge is out of service. When a tunnel is out of service, LRT service may be suspended completely.

Because of the higher risk and profile of bridge assets, Administration currently treats this portfolio differently than the rest of the City assets. Most City assets are allocated budgets based on what is available within the corporate pool of capital funds. Within this pool of funds, bridge assets are fully allocated the optimal funding recommended through the Risk-Based Infrastructure Management System (RIMS) before the remainder of the City assets receive allocations. This practice has been successful in ensuring bridge assets are safe, but this practice limits the funding available to other assets, limiting the investment in their renewal programs and ultimately impacting the condition ratings of other City assets. Building a separate, consistent formal allocation for bridges and auxiliary structures would ensure long term financial security for these critical assets, freeing up more renewal funding available to the rest of the City's assets.

The average annual ideal renewal investment for bridges and auxiliary structures assets is $75 million based on a 10 year average of investment. This amount does not include escalation costs or growth of the inventory during this time period. Once the target value has been achieved, an occasional recalibration may be required to account for these changes. Based on the forecasted tax generated revenues, an annual successive tax increase would take four to seven years to fully fund the DBRF investment target depending on the amount of the tax increase.

Figure H: Dedicated Bridge Renewal Fund Time to Generate Fund Target



### Key Considerations

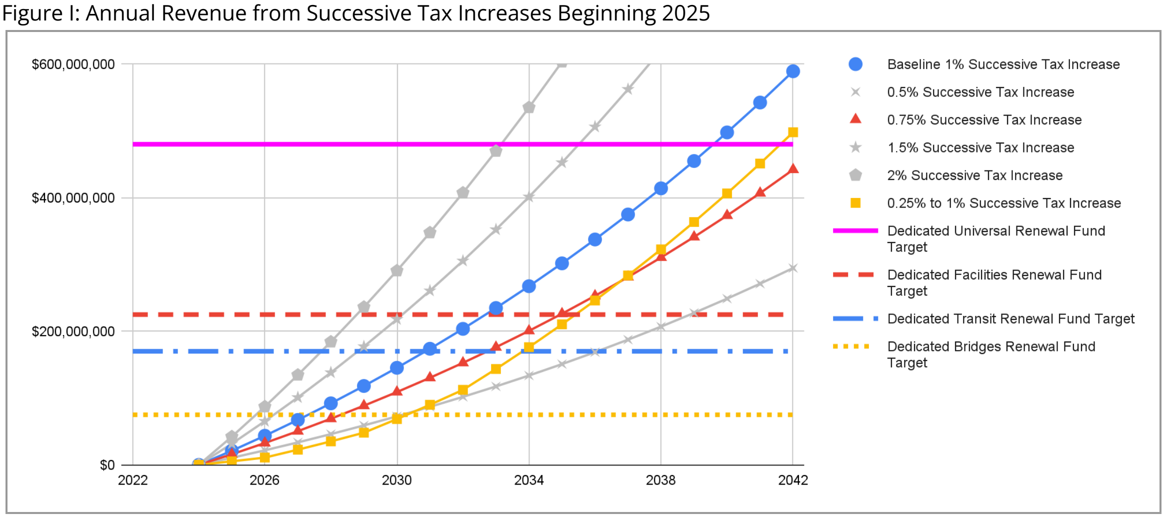
Various tax increase rates were considered ranging from a quarter per cent to two per cent increase. The selected options incorporated into the previous figures are 0.75%, 1.0% and 0.25% to 1% tax increases. It is important to note, these are ***successive*** tax increases (e.g increase is applied each year until the target funding level is reached). The 0.25% to 1% increase scenario ramps up the successive tax increases as follows:

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Future |
|---|---|---|---|---|---|---|---|---|---|
| 0.25% | 0.25% | 0.5% | 0.5% | 0.5% | 0.75% | 0.75% | 0.75% | 1.0% | 1.0% |

These options were selected to limit the impact to taxes while ensuring they meet the fund targets within a reasonable timeframe. At the same time, the gradual increase to the fund enables Administration and industry to gradually ramp up resourcing to align with the available funding levels. This is similar to the method the Neighborhood Renewal Fund was developed and has been successful.

Figure I summarizes the annual target funding levels for each of the four dedicated renewal fund options and tax increase scenarios.

Figure I: Annual Revenue from Successive Tax Increases Beginning 2025




Using the selected successive tax increase options for comparison, it would take between nine and twelve years to fully fund the Dedicated Facilities Renewal Fund option, between four and seven years to fully fund the Dedicated Bridges Renewal Fund option and between eight and eleven years to fully fund the Dedicated Transit Renewal Fund option. Using a consistent one per cent successive increase, it would take 17 years to fully fund the Dedicated Universal Renewal Fund option.

As the implementation of these fund options will take time to reach the fund target, the assets within the selected DRF will still receive renewal funding from the corporate renewal funding pool. As the level of the DRF revenue surpasses the relative portion allocated to the DRF assets from the pool, the DRF will start to take over the allocation of renewal investment funding, thereby increasing the amount of corporate renewal funding available to the assets remaining in the pool.

### Options Considered

Other sources of revenue, such as other orders of government, or revenue from sales of assets, have been considered to fund the DRF, however, the variability of the funding availability, and the lack of control over the timing and amount of funding make these sources poor candidates to fund a long term fund such as the DRF. Administration will continue to lobby for funding from various sources to support its capital investment programs.

Administration is implementing the Asset Rationalization Program, which could result in offsetting the cost of asset ownership with the reallocated funding to maintenance, operations, renewal and upgrading of assets by analyzing the assets owned by the City and determining if these assets effectively and efficiently meet the needs of the services they support. While this will identify some assets for disposition, the vast majority of assets in use today support the services provided by the City. Without specifically deciding to reduce or alter services, there will be limited opportunities to divest of assets.

### Next Steps

If Council supports a dedicated renewal fund, the following next steps will occur:

- A new dedicated renewal fund policy will be developed supporting the selected dedicated renewal fund option(s) and presented to Council for approval.
- A tactical investment strategy, corresponding to the selected dedicated renewal fund will be developed to reflect the new policy and available funds and incorporated into the 2027-2036 Capital Investment Outlook.
- The funds held in abeyance for future Council decision will be added to the agenda of the next available Supplemental Capital Budget Adjustment to be incorporated into the appropriate capital profile(s).