



CAPITAL BUDGET

THE CITY OF EDMONTON
2019-2022

City Council Discussions – November 2018



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OVERVIEW

Administration has prepared the proposed 2019–2022 Capital Budget in accordance with the Council approved Multi-year Budgeting Policy (C578) approved on September 9, 2014. The Policy directs the City to undertake a multi-year approach to budgeting for operating and capital programs and services with the end of the term of the multi-year budget to align with the calendar year end of the year after the year in which a new Council is elected. The most recent multi-year capital budget was approved by Council for the four year period 2015–2018.

The foundation of the proposed 2019–2022 Capital Budget is the 2019–2028 Capital Investment Outlook (CIO), a high level overview of the City's capital investment requirements over the next 10 years. The 10-year CIO was presented by Administration to City Council on April 27, 2018. The direction and guidance received from Council, including the need to continue to invest in the renewal and maintenance of the City's existing infrastructure, has been incorporated into the development of the proposed 2019–2022 Capital Budget.

The proposed 2019–2022 Capital Budget balances the infrastructure investment required to keep existing City assets in good repair while supporting ongoing growth needs. Approximately 45 per cent of proposed 2019–2022 capital investment is earmarked for renewing roads, neighbourhoods, parks, City-owned buildings and transit vehicles, with the remaining 55 per cent being recommended to support planning and delivery of new infrastructure. Despite the significant investments made in this budget, the City is challenged by reductions in Provincial funding. The current Municipal Sustainability Initiative agreement (MSI) has been reduced by \$61 million per year over the next three years and expires at the end of 2021. This budget assumes MSI funding will be replaced in 2022, and has incorporated a projected amount of funding in that year which will be comparable to the amount allocated in 2021. The City continues to have ongoing discussions with the Province as to the specifics of what this new funding will be.

In developing the proposed 2019–2022 Capital Budget, Administration considered the timing of project planning and construction activities over the four year budget period, distinguishing between project development and delivery. In

accordance with the Project Development & Delivery Model and based on existing financial thresholds, Administration will return to Council for approval to proceed with the detailed design and construction of projects following the completion of planning and initial design work. Projects will primarily be brought forward for Council's consideration as part of the Supplemental Capital Budget Adjustment (SCBA) process. This process is discussed in further detail in the "Project Development & Delivery Model" section of this document.

The 2019–2022 Capital Budget proposes \$4.3 billion in total capital investment over the next four years, excluding any additional projects that may potentially be financed with tax supported debt as well as any carry-forward funding from 2018. \$1.9 billion of this spending has been approved through previous Council decisions and the remaining \$2.4 billion is requested for Council's approval. This budget also includes \$0.9 billion of capital previously approved by Council that will extend beyond the year 2023, to give an overall budget of \$5.2 billion as outlined in Table 1 below:

Table 1: Capital Investment (\$millions)

	2019 – 2022	2023 & Beyond	Total
Previously Approved			
Growth	1,806.2	824.6	2,630.8
Renewal	117.6	–	117.6
	1,923.8	824.6	2,748.4
Requested			
Growth	547.3	26.3	573.6
Renewal	1,833.5	–	1,833.5
Subtotal	2,380.8	26.3	2,407.1
Total			
Growth	2,353.5	850.9	3,204.4
Renewal	1,951.1	–	1,951.1
Total	4,304.6	850.9	5,155.5

This budget proposes \$547 million in new growth related projects over the next four years. Of this amount, \$198 million relates to projects that are funded by unconstrained funding sources. \$306 million related to projects that are funded by dedicated funding sources and \$43 million relates to projects that could potentially leverage partner funding. These projects are outlined in more detail in Table 7.

Administration forecasts that approximately 20 to 25 per cent of the 2015–2018 Capital Budget, or approximately \$1.5 billion, will be carried forward into the 2019–2022 budget cycle. In preparing for the 2019–2022 budget, a review was undertaken of previously approved profiles to assess where projects were close to completion, tender costs were different from what initially forecast, or project schedules had changed or been deferred and cash flow redistributed to future years. Funding released through this process of evaluating carryforwards is available for re-allocation to new profile asks in this budget cycle. Based on this review, \$34.0 million has been identified for reallocation to fund projects in the 2019–2022 capital cycle.

This Budget continues the transformational City-building projects that advance Council's Strategic goals, as approved in prior budget cycles. These projects include the continued development and delivery of the Valley Line Southeast LRT (\$814.7M), Yellowhead Trail Freeway Conversion (\$281.5M), Fort Edmonton Park Utilities and Enhancements (\$137.9M) and Blatchford Redevelopment (\$115M). While the City continues the planned expansion of the Valley Line West and NAIT to Blatchford Metro LRT expansion, funding requests will be brought forward along with a recommendation for use of debt at a future date, as design elements and funding arrangements are completed.

As discussed above, and following Council's direction and guidance from the CIO, one of the City's priorities for the 2019–2022 Capital Budget is addressing a growing portfolio of aging infrastructure and amenities in a financially sustainable and resilient manner. This includes investment in great neighbourhoods, the building blocks of any great city. To this end, the Neighbourhood Renewal Program (NRP) provides an effective, long term strategic approach for addressing and prioritizing Edmonton's neighbourhood infrastructure needs by renewing and rebuilding roads, sidewalks and street lights in existing neighbourhoods.

The program balances the need to rebuild vital infrastructure in some neighbourhoods with a preventative maintenance approach in others. The proposed 2019–2022 Capital Budget invests \$635 million in Neighbourhood Renewal, fully-funded through a dedicated tax levy previously approved by Council.

Introduced in 2017, the Alley Renewal Strategy will accelerate the elimination of alleys rated to be in very poor condition across the City. The Alley Renewal Program will require an additional \$22 million annually for the next 25 years which will be funded through an annual tax levy increase of 0.3 per cent for the 2019 to 2022 period.

Achieving a balance of growth and renewal starts with understanding what the City's renewal needs are. This is important, to not only build from an outcome focused, data driven set of priorities, but also to fulfill Council's expectations to invest in what we own first. Once we know what our renewal funding requirements are, we can compare renewal investment needs to available funding. It is certainly recognized, and this budget reflects, that there must be some spending on growth priorities to meet the evolving needs of citizens in a growing City. Overall, proposed funding allocated to renewal was reduced to make available unconstrained funding for growth. Administration considers that delaying some renewal work is warranted the risk to counter the risk of not addressing critical growth pressures the City is facing.

The 2019–2028 CIO highlighted \$18.8 billion of potential capital investment over the next 10 years, with only \$15.0 billion of funding projected to be available. While not all of the identified potential capital projects are ready to be implemented immediately and estimates are preliminary, it is apparent that the required investments in infrastructure are more than the City is able to fund on its own. Strategic, long-term intergovernmental partnerships and predictable long term funding arrangements are required for the City to address its ongoing infrastructure requirements.

DEVELOPMENT OF THE CAPITAL BUDGET

The process used by Administration to develop the current four-year budget is guided by the City's Strategic Planning Framework and based on three foundational components: capital planning principles, prioritization and project development and delivery modeling. Each of these is discussed in further detail below.

Council's Strategic Goals

The City's Strategic Planning Framework ensures that priorities and services provided by the City are aligned with community needs and aspirations.

Council's Strategic Plan is the foundation of the Strategic Planning Framework, as it outlines Edmonton's vision, strategic goals and a principle for decision making. While the vision has a 30-year perspective, the four strategic goals identify areas of focus and transformation for the next 10 years.

The four goals of the Council's Strategic Plan are:

- **Healthy City** Edmonton is a neighbourly city with community and personal wellness that embodies and promotes equity for all Edmontonians.
- **Urban Places** Edmonton neighbourhoods are more vibrant as density increases, where people and businesses thrive and where housing and mobility options are plentiful.
- **Regional Prosperity** Edmonton grows prosperity for our Metro Region by driving innovation, competitiveness and relevance for our businesses at the local and global level.
- **Climate Resilience** Edmonton is a city that is transitioning to a low-carbon future, has clean air and water and is adapting to a changing climate.

Guided by Council's Strategic Plan, the 2019–2022 Capital Budget will assist City Council in making strategic decisions about how to allocate City resources for building and maintaining Edmonton's infrastructure, while also supporting the City's ability to provide continuous, high-quality services to residents and businesses alike. To ensure that Edmonton remains a great city in which to live and work, the City must identify and prioritize infrastructure projects in a holistic manner.

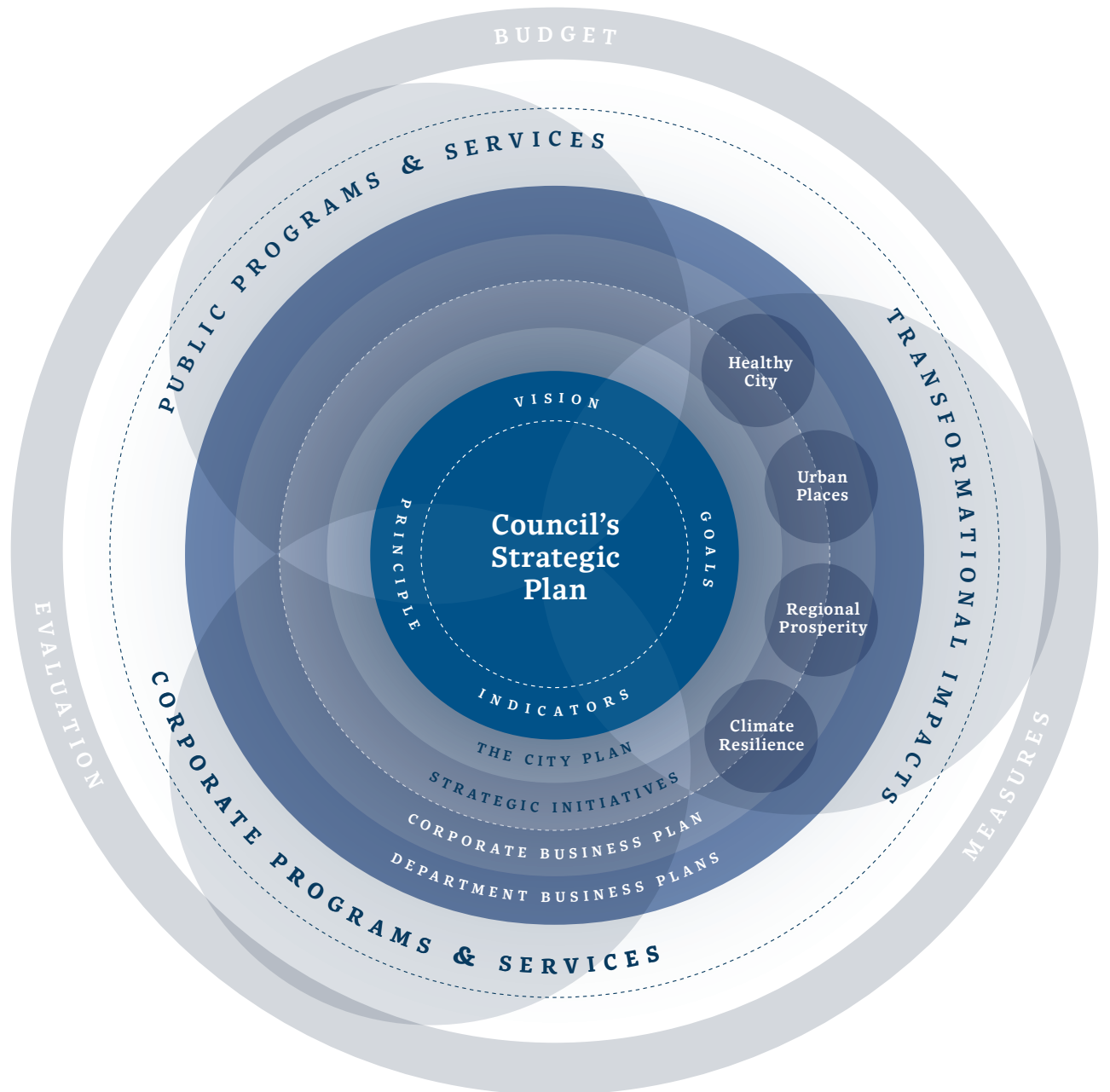
Investments in infrastructure are crucial for ensuring Edmonton's social, economic, financial and environmental sustainability. City infrastructure is a significant component of residential neighbourhoods, parks, attractions, economic prosperity, transportation and quality of life. The strategic goals reveal the potential of infrastructure to act as a lever for positive change. Therefore, the condition of the City's infrastructure, as well as funding strategies in place to support infrastructure development and maintenance, will have an effect on how fast the strategic goals will be achieved.

The City's Corporate Business Plan for 2019–2022 will align the City's work to the ten-year goals established by Council and the community along with the capital and operating budgets. The Corporate Business Plan will define where projects and initiatives will make an impact between three objectives:

- Make transformational impacts in our community.
- Deliver excellent services to our community.
- Manage the City for our community.

The Corporate Business Plan facilitates prioritization both corporately and in department business plans for a four-year period aligned to the capital and operating budget cycle.

Figure 1: Overview of Strategic Planning Framework



Capital Planning Principles:

Capital planning principles have been used for the last number of budget cycles. The principles were reaffirmed by City Council on June 26, 2018 and are as follows:

- Prioritize projects to achieve the best results for the City overall;
- Use cash (Pay As You Go and grant funding) for ongoing projects (e.g. rehabilitation and renewal);
- Use borrowing for new significant projects that are eligible according to the Debt Management Fiscal Policy (DMFP);
- Consider borrowing capacity;
- Identify the funding source for debt. If it is tax-supported, provide the projected increase to property taxes;
- Fund utilities through utility rates;
- Align capital projects to the City's 30-year vision, 10-year strategic goals and outcomes approved by Council;
- Optimize investment in municipal infrastructure to ensure all assets are in a safe condition that allows them to meet intended service levels;
- Allocate resources to achieve an appropriate balance between the renewal of existing infrastructure and the demand for new infrastructure growth; and,
- Identify and account for all future operating, maintenance, and renewal costs associated with capital projects, and include those costs in future budgets as appropriate.

Prioritization for Growth Projects

Although Council ultimately decides the extent to which investment is made in each growth project, Administration has developed and previously used a framework to help prioritize the capital recommendations to Council. This framework was reaffirmed by City Council on June 26, 2018.

The prioritization criteria rely on a value management approach that is consistent with the process used to develop the 2015–2018 Capital Budget, with a few enhancements. In response to feedback received in the previous budget cycle, instead of having only one criterion evaluating how each project aligns to all of Council's

strategic goals, four specific criteria are now used that align with each of the Council goals identified in Figure 1 above.

The criteria have been split between strategic and operational, with the first four identified below being grouped as Strategic Criteria and the remaining six the Operational Criteria. Appendix D provides a more detailed description of these criteria and the evaluation methodology used for each:

	2015–2018 Criteria	2019–2022 Criteria
STRATEGIC	Strategic Alignment	→ Healthy City
		→ Urban Places
		→ Regional Prosperity
		→ Climate Resilience
OPERATIONAL	Mandate	→ Mandate
	Geographic Impact	→ Geographic Impact
	Change in Demand	→ Change in Demand
	Level of Service	→ Level of Service
	Capital or Operational Savings	→ Capital or Operational Savings
	Corporate Operational Risk	→ Corporate Operational Risk
	Project Readiness	
	Profile Growth & Renewal	Removed

The proposed 2019–2022 Capital Budget was developed in collaboration with all City departments as well as the Edmonton Public Library (EPL) and the Edmonton Police Service (EPS). The collaborative budget development process ranked capital profiles for potential growth projects identified by City stakeholders against the prioritization criteria. Participants in the prioritization process identified anticipated future project needs by referring to multiple information sources, such as master plans and data about anticipated future growth, as well as considering previous Council and Committee direction. The projects identified during the ranking exercise then underwent a formal cross-departmental peer review to ensure that project rankings were properly calibrated and that scoring criteria were applied consistently throughout the prioritization process.

The results of this work were then put through additional considerations, taking into account project timing, synergies with other projects, relevance to current issues, integration with renewal, addressing occupational and health safety issues and external influences. A list of recommended projects was then matched against available funding (unconstrained or constrained). The proposed projects represent Administration's best recommendation, given the current available resources, balancing our ability to achieve the City's Corporate outcomes and meet some immediate needs.

Capital Project Governance: Project Development and Delivery Model

The Capital Project Governance Policy C591, approved by City Council at the April 25, 2017 meeting, requires that all capital projects (infrastructure, fleet and equipment, information technology and land) follow the Project Development and Delivery Model (PDDM). The PDDM is a phased approach that includes formal checkpoint reviews as projects progress through the strategy, concept, design, build and operate value chain.

The PDDM is intended to ensure that all City projects progress to an appropriate level of development prior to being considered for the delivery phase. This approach provides Council and business partners with more accurate information about a project's progress and viability at set points throughout the project life cycle, which, in turn, allows the City to make informed decisions about how to allocate capital spending more effectively. This process also enhances transparency and improves communication about the project status and overall maturity.

Through the capital budget process, Council authorizes a growth composite program specifically designated for infrastructure project development, which includes allocating initial funding for the planning and preliminary design phase of each project by asset type. Additionally, Administration will attach a prioritized list of recommended planning and design projects to the growth composite for Council's consideration. Should Council decide to proceed with a project that has not been recommended by Administration, the project would be added to the appropriate composite profile.

In the case of infrastructure renewal, as well as for certain growth programs, Administration sets up a composite profile that includes funding for each phase of project delivery: planning, design and construction. Administration will append a list of anticipated major projects to the profile. The suite of renewal profiles proposed for the 2019–2022 Capital Budget are now separated by program and asset type, such as;

- Transportation: Goods Movement Renewal,
- Transportation: Neighbourhoods Renewal,
- Open Spaces: Parks Renewal, and
- Facility: Safety and Security Renewal.

This separation by asset and program type represents an enhancement to the process used during previous budget cycles. Project identification is discussed further in the Renewal section of this document.

After completing the planning and initial design work for projects that adhere to established financial thresholds for growth and renewal projects (similar to the 2015–2018 Capital Budget, where Administration creates standalone profiles for growth projects with a projected value over \$2 million and for renewal projects valued over \$5 million), Administration will present the proposed infrastructure projects to Council for their consideration. This process allows Administration to undertake a robust evaluation of the project scope and any potential alternatives, thereby increasing the City's ability to regularly deliver key infrastructure projects on schedule and within the set project budget. Council will receive this update primarily through a supplemental capital budget, where funding would be approved for the detailed design and construction phases. As projects are further defined through the project delivery process, Administration may recommend that some projects should not continue beyond the planning process because they do not achieve the City's needs in relation to the required financial investment identified in the business case. Projects that fall below the established financial thresholds identified above will still follow the PDDM process but the transition from planning and design to construction will be managed and reported on within the program profile to enable efficiency and agility in delivering the projects.

SETTING THE CONTEXT

Past to Present

In the late 1980s and 1990s, Edmonton operated in a constrained fiscal and economic environment. This period was marked by a recession, by deep Provincial budget cuts, and three consecutive years of population decline in the City from 1994 to 1996. Responding to uncertain funding from higher orders of government and an economy emerging from recession, the City minimized capital spending in order to maintain basic services and keep property tax increases to a minimum.

Through this difficult period, Edmonton was virtually debt-free; however, lower investment in core infrastructure undermined the City's prosperity and competitiveness in attracting both labour and capital investment. Edmonton focused exclusively on delivering core services at the expense of infrastructure and residents experienced a reduction in service standards and quality of infrastructure.

By the early 2000s, Alberta's fiscal and economic circumstances began to stabilize. In 2004, the City took dramatic steps to address the backlog of required infrastructure renewal as well as delivering new infrastructure, kick-starting Edmonton's transformation into an urban centre beginning to realize its full potential.

The City's philosophy about using debt to fund major projects changed when debt financing for large capital projects was reintroduced in 2002. The primary factors that contributed to this shift in philosophy included rapid population growth – the City's population grew by 42 per cent between 2000 and 2016 – and the resulting economic expansion. Additionally, Edmonton received significant increases in grant funding from other orders of government, which further enabled the City to renew and expand its infrastructure.

This gradual increase in capital investment, beginning in 2004, allowed the City to fund a number of major infrastructure projects including:

- Bridge construction, including the new Waltherdale Bridge;
- Enhancements to public transit, including reinitiating the expansion of the LRT system;
- Neighbourhood revitalization, including the introduction of the Neighbourhood Renewal Program in 2009;
- Enhancements to parks and recreation facilities; and
- Improvements to the City's waste management facilities and practices.

Ongoing Realities

Infrastructure investment during this period still posed many challenges to the City. As the local and national economy improved, construction costs also increased – by approximately 70 per cent between 2002 and 2008. As a result, the City's capital spending increased substantially, particularly between 2006 and 2008, in response to these inflation-related cost increases. Construction costs decreased somewhat in 2009 and 2010 due to the global economic downturn resulting from the financial crisis of 2008; however, costs remained approximately 50 per cent above those recorded in 2002.

In 2009, as the construction market cooled, the City took advantage of favourable economic conditions and the increased capacity of the construction industry to work on major capital projects, as well as longer term contracts and lower costs for labour and materials. The City also received more grant funding from other orders of government and made prudent borrowing decisions to finance and fast-track major projects by borrowing against committed grant dollars during a period of historically low interest rates. These decisions by the City made delivering new infrastructure and addressing past infrastructure deficits possible. By 2010, the value of infrastructure investments surpassed \$1 billion annually and this money was invested in revitalizing existing neighbourhoods, rehabilitating roads, bridges and buildings, creating new recreation centres, and enhancing public transit.

As the economy recovered and gained momentum through 2014, the City's capital spending remained steady. The City continued its strategy of borrowing to fund long-term capital projects such as the construction of new recreation centres in Terwillegar, Clareview and The Meadows, as well as continuing to expand the LRT. The City also implemented innovative funding strategies. The Community Revitalization Levy (CRL), for example, was used to fund construction of the new downtown arena and help to spur new development in the central core of the City.

Since the most recent cyclical downturn of the oil and gas industry, which began in mid-2014, Edmonton is experiencing slower economic and population growth once again. Overall, the City has made every effort to maintain an appropriate balance between keeping its infrastructure in good repair to support long-term, cost-effective service delivery and investing in new capital projects to meet the increased service demands of a growing population. The City's deliberate investments in infrastructure are rooted in Edmontonians' vision for their city as a thriving, welcoming, safe, affordable and sustainable community where people enjoy the freedom to explore, experience, excel and expect the most out of every day.

Economic Outlook

Planning for the Future

The slowdown in energy related activities that began in mid 2014 has meant the rate of population growth in Alberta and Edmonton has slowed. Higher unemployment brought interprovincial migration to a halt and, in fact, Alberta lost residents to other parts of Canada, particularly Ontario and British Columbia, in 2015 and 2016.

The data for this trend is not broken down into municipal levels but, given the total population data available for Edmonton, the City has not experienced any significant loss of population to interprovincial out-migration over the past few years. As employment improves and the unemployment rate in Edmonton approaches the national average, interprovincial migration into the City will gain momentum as the workforce goes to where the jobs are.

By contrast, international migration remained relatively strong, with Calgary and Edmonton seeing a rising share of total Canadian migration. Combining this rise in migration with a high natural population growth rate (the excess of births over deaths) means

that Edmonton's population growth is expected to continue at a pace of about 1.9 per cent over the next four years. This is well above the national average, which is projected to be slightly under 1 per cent. What does that mean in terms of the capital budget? It means that population growth will place a higher demand on city services and the capital investments needed to support those services – particularly those that address the needs of recent arrivals to the city from overseas.

With interest rates in both Canada and the US continuing to rise, borrowing costs can be expected to escalate in the coming four years. However, the rise in rates will be very gradual as inflationary pressures in Canada and globally are moderate.

As of mid 2018, the Alberta and Edmonton economies continue to slowly recover. Business activity is expanding. Employment levels have returned to their pre-recession levels. As well, an ongoing shift in Edmonton from part-time to full-time work is boosting average weekly wages and supporting the consumer side of the economy. This means that it is reasonable to expect growth to continue in Edmonton and, as a result, investments that improve the efficiency of moving a growing volume of goods, services and people will be in high demand.

The next four years

After a sharp downturn in activity over 2015 and 2016, employment and other indicators for Alberta are improving and have now fully recovered to their 2014 peaks. As is the case with Alberta, Edmonton's 2018 key indicators point to a slow improvement in the economy which has now also recovered from the downturn in 2016. Looking even further ahead, with limited prospects for dramatic gains in oil and natural gas prices due to constraints in Alberta's export capacity, investment levels in Alberta's energy sector are expected to be modest by historical standards. Consequently, the theme of ongoing but moderate growth noted above will hold in the next four years as well.

It's also expected that employment growth will be slower than in the past, largely due to an aging population that will dampen growth in the labour force. Over the four year period outlook of the capital budget, real economic growth adjusted for inflation is expected to average approximately 2.5 per cent annually. Edmonton is, nevertheless, unique in Alberta; it has a relatively young demographic profile compared to much of Canada and Alberta, and is also expected to continue to attract newcomers.

What this means is that Edmonton, over the next decade, will have to deal with a growing population and service demands greater than in many Canadian cities, while simultaneously having to grapple with a growing but not high-performing economy. Added to this mix is that, in the next several years, interest rates are expected to rise to levels closer to historical averages. The City should, therefore, anticipate a medium-term upward trend in interest costs.

Even though Edmonton's population and economy is expected to be growing faster than the national average, inflation as measured by the Consumer Price Index will be close to the national average of about two per cent over the next four years. Expenses for the City can be expected to rise at a faster pace, reflecting the high proportion of wages, salaries and benefits in its operating budget.

Inflation, as measured by the Consumer Price Index (CPI) and the Non Residential Construction Price Index (NRCPI), was very low from 2014 to early 2018. As noted above, the CPI will pick up in the coming years. As well, the NRCPI, which tends to be very volatile, will also increase and could spike above three per cent in particular years. A summary of key economic indicators is provided in Table 2 below:

Table 2: Key Economic Indicators

Key Indicators	Average Annual	Forecast
	% Growth 2009-2018	Average Annual % Growth 2019-2022
Real Economic Output	1.6	2.5
Population	2.6	1.9
Employment	1.8	1.8
Consumer Price Index (CPI)	1.3	1.8
Municipal Price Index (MPI)¹	2.4	2.9
Non Residential Construction Price Index (NRCPI)	0.3	1.8

¹Historical MPI calculations as well as forecasts from the 2018 MPI report are not directly comparable to the results reported in previous years due to methodological revisions (i.e. re-calculated weights for each expenditure category and a replacement indicator for historical land cost inflation).

To summarize, Edmonton's population, along with its economy, is expected to continue to grow, which means the demand for new services and the pressure on existing services will also grow. But within this reality is another reality – the City has limited revenue generation tools and Alberta's economy has historically been dominated by an industry that is volatile at best. We may be experiencing a “new normal” of lower oil prices and lower investment. This, combined with uncertainty around trade relations with the United States, means that next four years present tricky terrain to negotiate and the City should be prepared for potential negative shocks to its economy.

Emerging Issues

There are numerous emerging issues that could have direct impacts on the City's capital program. The City will continue to pay close attention to these issues, with the 2019–2022 Capital Budget continuing to be refined as required through the Supplemental Capital Budget Adjustment process over the next four years.

Edmonton Metropolitan Region

Edmonton is the metropolitan centre and economic anchor of a region of approximately 1.4 million people composed of Edmonton and many smaller municipalities. The City is continuously working with its regional partners to help the region thrive while addressing the challenges of growth. In 2017, the Edmonton Metropolitan Region Board was established, comprising 13 of the largest municipalities, to identify where future growth will occur in the region along with plans for efficient infrastructure and services to support that growth.

There are ongoing discussions with the regional partners on collaborative approaches to deal with shared investments and shared benefits in the Edmonton Metropolitan Region, including such items as infrastructure, land use, transit and emergency services. It is uncertain what the outcome of these discussions may be, or how that outcome could affect the City. While collaborative regional growth has many upsides, it may also present additional capital infrastructure growth pressures on the City that have not been accounted for in the four year budget. A successful model for shared investments may also introduce complexity in planning for capital investments, including new processes and tools developed collaboratively.

Growth in City Boundaries

Given that Edmonton is in the centre of a multi-municipal metropolitan region, its future growth comes with the prospect that city boundaries may one day need to expand. When municipal boundaries expand due to annexations, a number of financial impacts can follow. For example, the geographical expansion of the city would introduce growth pressures for new infrastructure in these new locations. While Administration has done extensive analysis on the infrastructure costs of annexation, including the proposed Leduc County annexation, the proposed 2019–2022 Capital Budget does not include the growth impacts of annexation.

Uncertainty of Future Capital Grant Funding

The City of Edmonton exists in an environment of ever-present financial uncertainty around the security and stability of provincial and federal grants. The City's infrastructure program is highly dependent on grant funding, both for the maintenance of existing infrastructure and for major strategic projects such as LRT expansion.

As part of the 2018 Provincial Budget, the province announced a reduction to Municipal Sustainability Initiative (MSI) funding. The impact to the City of Edmonton is a \$61 million per year reduction to MSI capital funding from 2018 to 2021, or a total reduction of \$244 million over the four years (with the program slated to end in 2021–22).

As the Municipal Sustainability Initiative (MSI) program is scheduled to end in 2021, the Province is engaging with its two big cities – Edmonton and Calgary – on formulating an alternative program. This program would likely be nested within the City Charter Fiscal Framework and has the potential to include enhancements to existing revenue tools, and/or alternatives to transfer funding. At this time, it is uncertain what type of program could replace MSI transfer funding, or whether these changes would present positive or negative impacts to the City's capital planning program.

It should be noted that any new funding source may not follow the same format. MSI is an unconstrained funding source and has historically been used to fund a broad array of projects related to growth and renewal. The flexibility of the MSI program has allowed the City to meet many of its City-building objectives. There's no certainty that replacement funding would offer the same flexibility. The Province may choose to put restrictions on funding and limit its use to targeted initiatives. As the Province draws more of its funding from Climate Change initiatives such as the Carbon Tax, this scenario becomes ever more plausible. This could have significant impacts on funding for renewal, which currently uses 82 per cent of MSI funding. Any new restrictions on funding may limit the amount that could be used for funding renewal for things like roads or recreation centres.

FUNDING AND DEBT CAPACITY

Funding Sources

The ability to execute on both growth and renewal capital projects is limited by the amount of available capital funding. Therefore, it is critical to achieve as much certainty as possible around the timing, sources and amount of funding based on what is known and committed in the present moment. The City aims to maximize funding sources external to the City. Internal sources are used to leverage the external sources but also fund projects for which external sources are not available.

Funding can be classified into two main categories: constrained and unconstrained. Constrained funding, is dedicated to specific types of infrastructure. Constrained funding is often tied to grants from other levels of government, developer and partner contributions directed to specific projects or groups of projects. Other internal sources of constrained funding are reserves or retained earnings for specified projects or capital programs, such as the dedicated tax levy which is put into a reserve for the Neighbourhood Renewal Program.

Unconstrained funding is available with more flexibility and fewer restrictions for a variety of infrastructure needs. Unconstrained funding includes PAYG (Pay-As-You-Go) funds raised from

property taxes and investments as well as grant programs from the Province such as the Municipal Sustainability Initiative (MSI) and from the federal government such as the Federal Gas Tax.

In this Budget Cycle, the total projected funding is \$4.3 billion, which includes \$1.9 billion for growth and renewal projects that were previously approved. This leaves funding of \$2.4 billion available for allocation in 2019–2022 to be balanced between growth and renewal. Of this amount, \$1.0 billion is constrained and \$1.4 is unconstrained.

The City of Edmonton funds its capital program from a number of sources, as shown on Table 3. PAYG is a term used to describe paying for capital assets from current revenues. For the City, those current revenues include both property taxes and investment income.

Debt is a method of financing capital projects and is not a funding source itself. Please refer to the section on Debt for a further discussion of the use of debt to finance capital projects.

More details related to funding sources for the City are provided below.

Table 3: Projected Funding and Debt (\$ millions)

	2019	2020	2021	2022	Total 2019 – 2022	2023 & Beyond	Overall Total
Pay As You Go	124.8	123.9	131.1	131.6	511.4	31.7	543.1
Federal	69.1	339	49.8	68.7	526.6	174.7	701.3
Provincial	363.3	328.9	225.5	235	1152.7	245.2	1,397.9
Fees & Levies	45.6	31.8	26.5	22.2	126.1	-	126.1
Land Enterprise	85.8	75	50.4	45.2	256.4	303.9	560.3
Reserves	236.3	187.4	176.5	176.2	776.4	-	776.4
Other Constrained Funds	33.3	37.4	34.3	25.7	130.7	1.4	132.1
Total Funding	958.2	1,123.4	694.1	704.6	3,480.3	756.9	4,237.2
Debt	310.3	299.9	83.8	130.3	824.3	93.9	918.3
Total Funding & Debt	1,268.5	1,423.3	777.9	834.9	4,304.6	850.9	5,155.5

Pay-As-You-Go

Pay-As-You-Go (PAYG) funding is largely made available from annual investment/dividend income, with some portion of the funds received through property taxes. Investment volatility can greatly impact the total amount of funding available in a given year. PAYG is a vital component of the City's funding strategy, since it is used to pay for the costs grant-funded projects incur that are not eligible for reimbursement under federal and provincial grant funding rules. To maximize the use of grant funding, it is necessary to have an unconditional funding source to address the grant eligibility gaps.

Federal Grants

The City receives infrastructure funding under a number of Federal programs outlined below:

New Building Canada Fund

Launched in April 2014, the total value of the New Building Canada Fund (NBCF) is \$14 billion over 10 years (2014–23). The program supports projects of national, regional and local significance that promote economic growth, job creation and productivity. The fund operated under two main components: a \$4 billion National Infrastructure Component (NIC) that was distributed based on merit for projects of national significance; and a \$10 billion Provincial-Territorial Infrastructure Component (PTIC) that was allotted to provinces and territories for national and regional projects on a per capita plus basis.

City of Edmonton projects funded under the NBCF PTIC Component include: Valley Line SE LRT (\$150 million), Mill Woods Stormwater Ponds and Conveyance Improvements (\$30.3 million) and Fort Edmonton Park Expansion (\$47.2 million). Under NBCF NIC, the City's Yellowhead Trail Conversion project was awarded \$241.6 million; the provincial government has committed the same amount, which the City will receive starting in 2023. The NBCF program is now fully subscribed, with all available funding committed.

P3 Canada Fund

Launched in 2008 and managed by the federal Crown corporation PPP Canada, the P3 Canada Fund was established to co-fund public infrastructure projects that are best delivered as public-private partnerships, and to develop the Canadian P3 market. Disbanded in 2018, program oversight has been transferred

Infrastructure Canada until all allocated funding committed under P3 Canada has been expended. The City of Edmonton was awarded \$250 million for the Valley Line SE LRT, which combined with the above noted BCF PTIC funding brought the total federal contribution for the project to \$400 million.

Public Transit Infrastructure Fund (Phase 1)

Announced by the Government of Canada in Budget 2016, Phase 1 of the Public Transit Infrastructure Fund (PTIF 1) focused on making immediate investments of \$3.4 billion over three years to upgrade and improve public transit systems across Canada. Alberta's share of this initial investment was \$347 million, of which the City of Edmonton allocation is \$145.3 million based on ridership, which is funding 46 projects that include LRT design, fleet purchases and facility renewal. The Government of Alberta's cost sharing contribution for the City's PTIF 1 projects is \$72.7 million.

Investing in Canada Infrastructure Plan

The Investing in Canada Infrastructure Plan (ICIP) is a federal program that provides funding to create long-term economic growth, build inclusive, sustainable communities and support a low carbon, green economy. The funding is provided through bilateral agreements between the Federal and Provincial Government. Under the program, the federal government contributes up to 40 per cent of the eligible project costs, the province must commit a minimum of 33 per cent and the municipality the remaining eligible and ineligible costs. The provincial government is responsible for administering the program funding under the bilateral Agreement. The Plan is broken down into the following components:

Public Transit Infrastructure Fund (Phase 2)

To support the next phase of public transit projects, the Government of Canada announced in Budget 2017 it would invest \$25.3 billion over the next decade, including \$5 billion invested by the Canada Infrastructure Bank. Through new bilateral agreements with provinces and territories, the Public Transit stream (PTIF 2) will provide provinces, territories and municipalities with funding to address the new construction, expansion improvement and rehabilitation of public and active transit infrastructure. These investments aim to improve commutes, cut air pollution, strengthen communities and grow Canada's economy.

Alberta's share of this investment is \$2.1 billion. The City of Edmonton will receive \$878 million based on ridership. As part of its cost-sharing commitment to the program, the provincial government has committed \$1.5 billion to Edmonton for LRT expansion, some of which is coming from Alberta's Climate Leadership Plan. The City's next LRT priorities, the Valley Line West and Metro Line Extension to Blatchford, are currently earmarked for this funding.

Green Infrastructure

Green Infrastructure supports greenhouse gas (GHG) emission reduction targets, strengthens resilience to the impacts of climate change and climate-related disaster mitigation. This helps ensure more communities can provide clean air and safer drinking water for their residents. Alberta has been given \$1 billion in federal funding under the Green Infrastructure Project. There is a merit-based application process to select projects for funding. The first round of applications was due August 1, 2018. No funding decisions have been made.

Community, Culture and Recreation Infrastructure

The community, culture and recreation stream is intended to build stronger communities and improve social cohesion. Alberta has been given \$140 million under this stream of funding. The province has a merit-based application process to select projects for funding. The first round of applications was due August 1, 2018. No funding decisions have been made.

National Trades Corridor Fund

Through the National Trades Corridor Fund, the Government of Canada is investing \$2 billion over 11 years to make Canada's trade corridors more efficient and reliable. The program aims to modernize transportation infrastructure, reduce bottlenecks to support the flow of goods and passengers and address capacity issues. Under the program, the City of Edmonton has been awarded \$39.8 million to widen 50th Street between 76 and 90 Avenues and separate the CPR crossing north of the Sherwood Park Freeway. The provincial government's cost-sharing commitment is \$28.3 million.

Smart Cities Challenge

The Smart Cities Challenge is a program to encourage communities to find ways to improve the lives of their residents through innovation, data and connected technology. Funding under this program is being delivered through a pan-Canadian competition

that will award up to \$50 million for project proposals. The City submitted an application and was announced as one of 20 finalists. The selection of winners will be decided March 2019 and publicly announced in Spring 2019. Smart Cities is a federal initiative and provincial contribution is not required.

Affordable Housing

As a limited funding partner, the City of Edmonton and its non-profit partners depend on other orders of government for direct investment in affordable housing projects. The federal government announced a 10-year, \$40 billion National Housing Strategy to build, renew and repair Canada's stock of affordable housing. The Strategy addresses investments along the entire housing spectrum including market rental, affordable housing, community (social) housing, permanent support housing and shelters. It includes a focus on new construction and rehabilitation of existing buildings. Some of the relevant funding for the City of Edmonton under this strategy includes:

- **National Housing Co-Investment Fund:** \$15.9 billion (\$4.7 billion in grants and \$11.2 billion in loans) to ensure the upkeep of existing rental housing and develop new affordable housing integrated with supports and services
- **Federal Land Transfer:** Up to \$200 million in federal lands will be transferred to housing providers to encourage the development of sustainable, accessible mixed income and mixed use developments and communities.
- **Federal-Provincial Territorial Housing Priorities:** each province and territory will negotiate bilateral block funding to support housing initiatives. Provinces and territories will be expected to match federal contributions.
- **Homelessness Partnership Strategy:** The Government will invest \$2.2 billion over 10 years to tackle homelessness through an expanded federal homelessness program.

Making Life Better: Alberta's Provincial Affordable Housing Strategy: Also released in 2017, this commits the Province to investing \$1.2 billion in funds over five years. Priorities include Social Housing Development and Renewal, Seniors Housing Development and Renewal, Affordable and Specialized Housing, and an Indigenous Housing *Off-Reserve Housing Program*.

Disaster Mitigation and Adaptation Fund (DMAF)

The federal government announced funding of \$2 billion over 10 years from the Disaster Mitigation and Adaptation Fund (DMAF). DMAF is a merit-based program to support large-scale infrastructure projects to help communities better manage the risks of disasters triggered by natural hazards. The first call for projects ended on July 31, 2018. Under the program, the federal government would fund up to 40 per cent of eligible project costs, with the remaining funded by the applicant. DMAF is not a federal-provincial cost sharing program. The City of Edmonton is pursuing funding for a number of drainage-related projects that support future flood mitigation strategies.

Gas Tax Fund

The federal Gas Tax Fund (GTF) is a permanent source of funding provided up front, twice-a-year, to provinces and territories. This funding is then provided to municipalities to support local infrastructure priorities. Municipalities can pool, bank and borrow against this funding and select how best to direct the funds. This provides the flexibility to make strategic investments across a broad cross-section of project categories.

Currently at \$2 billion per year Canada-wide, GTF payments are indexed at two per cent annually. The City of Edmonton's allocation over the next four years (2019–22) is projected to be \$216.2 million. \$43.6 million of this per year is required for South LRT debt servicing until the debt is fully retired in 2030. The ability to use the grant to service long-term debt allowed the City to borrow about \$573 million over the period 2005 to 2010 against future program dollars to accelerate Capital Line South LRT construction. Other City projects currently funded under the GTF include the Ice District's Community Rink (\$7 million) and Bus Fleet and Equipment Rehabilitation and Replacement (\$6.5 million).

Provincial Grants

Municipal Sustainability Initiative

The Municipal Sustainability Initiative (MSI) includes MSI Capital and the Basic Municipal Transportation Grant (BMTG), which were consolidated under the MSI umbrella in 2014. The merged funding programs share the same broad eligibility guidelines, which cover both core infrastructure and soft infrastructure, such as parks, recreation, protective services and libraries. Program allocation for the MSI Capital component is a hybrid formula that includes population (48 per cent), education tax requisition (48 per cent) and local roads (four per cent), while the methodology for the BMTG component is based on total provincial fuel volumes and is distributed using a formula equivalent to five cents per litre.

MSI guidelines give the City considerable flexibility and latitude in determining how best to use the grant to advance municipal needs and priorities, as the program does not require match funding and has broad eligibility criteria that include most infrastructure categories. Program rules allow the City to use the grant to support a wide variety of civic programs, making it our municipality's most significant source of unconstrained grant funding. For example, in the City's 2015 to 2018 capital program, all MSI dollars were allocated to core infrastructure, of which 82 per cent was used for the renewal of existing assets. In March, 2018 the Province announced an annual reduction of \$61 million to the program over 2018 to 2021 (\$244 million in total). The current agreement expires in March 2022 and the City's MSI allocation (MSI Capital and BMTG) from 2019 to 2021 is projected to be \$650 million. The program is expected to be replaced with a new provincial funding source in 2022.

While the specifics are still to be determined as the City continues ongoing discussions with the Province, this budget assumes any new funding from the Province to replace the MSI program in 2022 will be at an amount comparable to the MSI funding allocated (including the BMTG component) in 2021. Based on this assumption, this budget projects MSI replacement funding of \$216 million in 2022.

Green Transit Incentives Program

The Green Transit Incentives Program (GreenTRIP) is a competitive, application-based program that provided a total \$2 billion of capital funding for new and expanded public transit projects, with an aim to decrease vehicle usage on Alberta roads and reduce greenhouse gas emissions. Currently, City of Edmonton projects receiving funding under the program are Regional Smart Fare (\$28.8 million) and Valley Line SE LRT (\$474.6 million). The Valley Line SE LRT is also being supplemented by \$176.4 million in funding approved under Alberta's Climate Leadership Plan, which brings the total provincial contribution for the project to \$651 million. The Metro Line to NAIT LRT extension was awarded \$437 million in funding earlier in the program, of which \$162 million remains to be expended in the 2019–22 Capital Budget cycle. The Green TRIP program is now fully subscribed, with all available funding allocated.

Alberta Community Resilience Program

The Alberta Community Resilience Program (ACRP) is a multi-year provincial grant that was created to support communities in the development of long-term resilience to flood and drought events. Program priorities are to ensure the protection of critical infrastructure and public safety. ACRP will provide \$531 million over 10 years (2015–2025). To date, the City of Edmonton has been awarded \$16.4 million for three Mill Woods stormwater ponds: Sister Mary Ann Casey Park Dry Pond/Tawa Park (\$5.64 million), Ekota Dry Pond (\$4.52 million) and Malcolm Tweddle and Edith Rogers Dry Ponds (\$6.27 million). The City continues to prioritize projects each year to meet the province's annual application intake.

Alberta Community Partnership

The objective of the Alberta Community Partnership (ACP) program is to improve the viability and long-term sustainability of municipalities by providing support for regional collaboration and capacity-building initiatives. The City of Edmonton was awarded \$5.5 million in program capital funding for its Regional Smart Fare project, prior to the program becoming strictly an operating grant.

Alberta Community Transit Fund

In August 2018, the provincial government announced the Alberta Community Transit Fund (ACT) which provides \$215 million in transit funding over five years. \$115 million is from Alberta's Climate Leadership Plan. The program will score each project based on regional collaboration and its environmental, economic and social benefits. The ACT is an application based program. The provincial government will contribute up to 40 per cent of eligible costs for low-emission buses (i.e. compressed natural gas busses) and 50 per cent for zero-emission buses (i.e. electric or hydrogen-electric buses) or transit centre retrofits that reduce greenhouse gas emissions. Funding applications are due December 31, 2018.

Matching Funds to Federal Grants

Contributions made by the Federal government in relation to Public Transit Infrastructure Fund (PTIF) and the New Building Canada Fund (NBCF) are matched in part by the province, based on cost-sharing agreements. Current matching agreements in place:

1. PTIF: Total matching funds from the province are expected to be \$600 million to support LRT expansion.
2. NBCF: The province has approved \$309 million in matching funds for Yellowhead Trail and the Valley Line Southeast LRT.

Fees and Levies

Neighbourhood Renewal Program (NRP) Tax Levy

Council approved a dedicated tax levy for the Neighbourhood Renewal Program starting in 2009. In 2017, Council endorsed the Alley Renewal Program, expanding the NRP to include residential alleys. The Alley Renewal Program is expected to gradually increase from 2019–2022, to cumulatively add 1.2 per cent to the tax levy. This will provide an additional \$22.3 million of funding for Alley Renewal by 2022, and funding will be maintained at this level into the future.

Local Improvement Fees

For tax-supported operations, local improvements are used exclusively to support streets and sidewalks in residential neighbourhoods. The City borrows money through a formal borrowing bylaw to front-end specific projects, which are then recovered over time from residents benefiting from these improvements. Local improvements can be resident or City initiated. Examples of resident-initiated local improvements include alley paving, lighting, curb crossings, sidewalks and roads. City-initiated local improvements include cost-shared sidewalk reconstruction. The Neighbourhood Renewal Program uses local improvements as a cost-sharing tool for sidewalk reconstruction and replacement.

Developer Fees/Partner Financing

Funds are contributed by developers or partners for specific civic infrastructure, such as buildings, parks, recreation facilities, roads and social housing. Current approved projects with significant developer/partner financing include Coronation Recreation Centre and Fort Edmonton Park.

Land Enterprise

Land Enterprise acts as the development arm of the City of Edmonton. It acquires land, then services, markets and sells it. One of Land Enterprise's primary goals is to make revenue for the City. The development activities are financed by the reinvestment of past profits (retained earnings) in buying new land and servicing it.

A secondary mandate of Land Enterprise is to buy land for future municipal needs. The funding for the land portion is recovered from the Capital Budget. The acquisition of land often occurs ahead of the Capital Budget approval to take advantage of lower pre-development land prices. This results in a significant working capital deficit in the municipal land acquisition program of Land Enterprise. A strategy based on a split of the functions between Enterprise Land Development (ELD) and Land For Municipal Purposes (FMP) will be developed to repay ELD for previous acquisitions of land for municipal purposes not yet recovered from the Capital Budget. This will also allow the City to buy land at pre-development prices without creating a financial liability.

Reserves: Fleet/Other

Fleet Services provides vehicle and equipment procurement, maintenance, fleet engineering, fabrication services, fuel management and fleet administration to other City departments and EPCOR. A dedicated Vehicle Replacement Reserve was established in 2010. This reserve helps to ensure the long-term funding of capital replacement needs is adequately maintained. The pricing model Fleet Services uses includes both direct charges for maintenance costs and fixed-rate charges for vehicle replacement funding. Fuel charges are billed separately, as fuel prices can be highly volatile, and are largely controlled by the customers' usage patterns. ETS buses are not subject to fixed rate charges, but remain funded through transit-related grants.

Debt

Background

The way municipalities fund services, growth and renewal has changed significantly in the last two decades. After a period of relatively little borrowing due to high interest rates and recessions, in 2002 the City reintroduced tax-supported debt to finance capital projects. The result has been a significant expansion and revitalization across the city. The appropriate and sustainable use of debt is now broadly considered an important tool for supporting a strong capital infrastructure program. Without the strategic use of debt, the City could not build significant infrastructure projects without saving for it first. Saving the full amount of a project's costs can mean that the taxpayers paying for the project are not those that benefit from the project. This concept is referred to as generational equity. Users of a capital project will likely change over time. As a result, debt financing over a longer term can be more equitable than using funds collected and accumulated over time from current and prior residents who may not ultimately benefit from the future improvement. The pay as you go or saving approach to funding capital infrastructure can also lead to negative carrying costs, where the cost of construction increases faster than the return earned on savings over the same period of time.

The use of debt also helps to maximize the capital funding available to the City in situations where eligibility constraints on grant funding from other orders of government prevents the funding of an infrastructure project in its entirety. Other grant funding streams require the City to provide matching funds. The City could not access these grants without using debt financing.

Debt Management Fiscal Policy

The City has created a Debt Management Fiscal Policy (DMFP) to guide the use of debt. The DMFP classifies debt into two major categories: tax-supported and self-liquidating. The category of tax-supported debt is further broken down into subcategories of tax-supported debt, for which the primary means of debt repayment is property taxes, and self-supporting tax-guaranteed debt, for which the primary means of debt repayment is another revenue source such as grants, user fees, lease payments, etc. Self-liquidating debt is predominantly incurred on behalf of the City utilities. It is repaid through utility rate revenue. With the 2017 transfer of drainage operations to EPCOR, the City has transferred its obligation for \$593 million in self-liquidating debt to EPCOR. So as of September 1, 2017, self-liquidating debt refers almost exclusively to debt associated with the Waste Utility and Local Improvements.

The DMFP allows for the consideration of long-term debt related to capital expenditures for:

- Large projects with long-term benefits
- Projects with benefits for the community-at-large (for tax-supported debt)
- Growth-related projects
- Emerging needs to support corporate priorities and approved strategic plans
- Major rehabilitation of existing assets

Current Capital Budget Cycle

The proposed 2019–2022 Capital Budget allocates \$710 million in tax-supported debt to advance a number of transformational City building projects. These projects, and anticipated borrowing, were previously approved in past budget cycles. They include:

- Yellowhead Trail Freeway Conversion (\$511 million in tax-supported debt approved between 2017 and 2024 to match and access \$483 million in grant funding from other orders or government)
- Valley Line Southeast LRT (tax-supported debt was used to access \$1 billion in matching grant funding from other orders of government)
- Valley Line LRT: Downtown to Lewis Farms (\$151 million of tax-supported debt is currently approved for design, procurement and land acquisition for Stage 2 of the Valley Line LRT)
- Kathleen Andrews Transit Garage
- Co-located Dispatch and Emergency Operations Centre
- Coronation Community Recreation Centre

Debt Limits

The City of Edmonton is subject to limits of total debt and debt servicing by the Municipal Government Act, RSA 2000, c M-26 (MGA). The MGA Debt Limit Regulation AR 255/2000 stipulates that the City's total debt limit is two times the revenue of the municipality, and that debt servicing costs is limited to 35 per cent the revenue of the municipality. The revenue for purposes of this calculation is the consolidated revenue of the City less capital government transfers and developer contributed tangible capital assets and excludes revenue from EPCOR.

The City's Standard & Poor's credit rating is currently AA+. This rating speaks to the City's commitment to careful financial management and responsible use of tax dollars. However, in 2017 Standard and Poor's changed the City of Edmonton's outlook from Stable to Negative and has kept the outlook at Negative for 2018. This adjustment does not affect Edmonton's credit rating but cautions the City could face a downgrade in the future if additional capital projects increase pressure on budgetary performance or increase debt significantly.

Debt is further restricted through the Debt Management Fiscal Policy, which limits total debt servicing to 22 per cent of City revenues, and tax-supported debt to 15 per cent of annual tax-supported revenues. Table 4 below shows a comparison between the actual debt limits and performance from the final year of the previous capital budget cycle (2014), and the projected debt limits and performance for the first year of the next capital budget cycle (2019).

Table 4: Debt Limits (\$ millions)

	Total Debt (MGA) 2x Municipal Revenue	Total Debt Servicing (MGA) 35% of Municipal Revenue	Total Debt Servicing (DMFP) 22% of Municipal Revenue	Tax-Supported Debt Servicing (DMFP) 15% of Tax-Supported Revenue
2014 (Actuals)				
Limit	5,154	902	567	310
Actuals	2,896	319	224	143
Available Room (\$)	2,258	583	343	167
Available Room (%)	44%	65%	60%	54%
2017 (Actuals)				
Limit	5,647	989	621	362
Actuals	2,912	265	333	264
Available Room (\$)	2,735	724	288	98
Available Room (%)	48%	73%	46%	27%
2019 (Projected*)				
Limit	5,548	971	610	373
Actuals	3,802	354	296	245
Available Room (\$)	1,746	617	314	128
Available Room (%)	31%	64%	51%	34%
2022 (Projected*)				
Limit	6,062	1,061	667	407
Actuals	5,232	481	447	389
Available Room (\$)	830	580	220	18
Available Room (%)	14%	55%	33%	4%

*Includes potential range required for LRT expansion

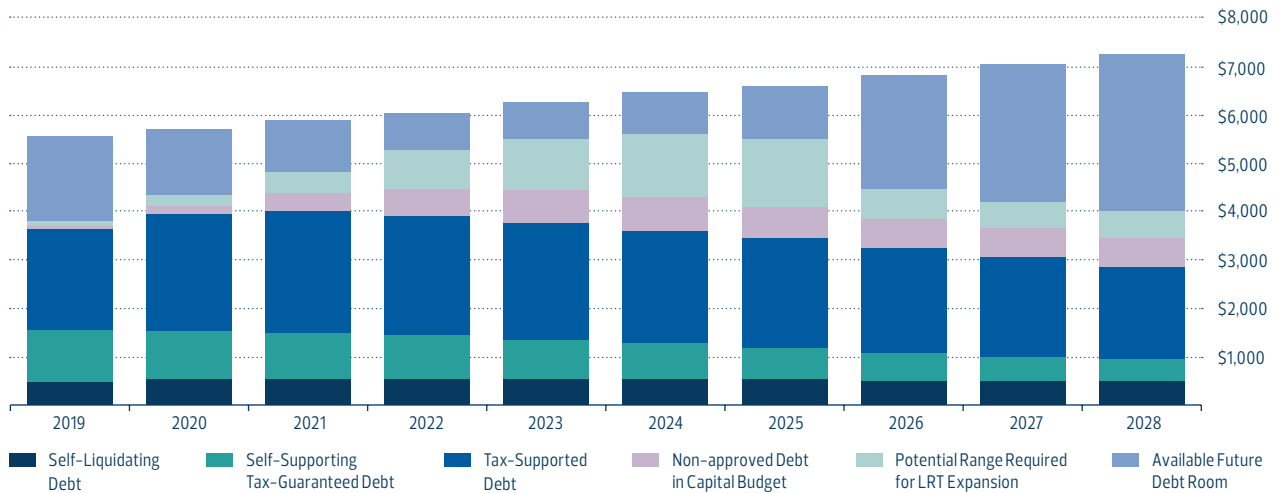
Debt Projections

The debt projections shown above take into consideration debt commitments made in previous capital budget cycles as well as non-approved debt contemplated in the 2019–2022 capital budget (refer to the “Potential Projects to be Considered for Debt” section, below). In addition, a range has been added to reflect the potential debt and debt service room that may be required for

future LRT expansion. The amount of total debt room projected to be available under the MGA limit will decrease from \$2.7 billion in 2017, to potentially \$830 million in 2022 (with the tax-supported debt servicing room under the Debt Management Fiscal Policy being reduced to \$18 million by 2022).

Figure 2: MGA Total Debt Limit (\$ millions)

A potential range has been shown for total debt room that could be required for LRT expansion. This range includes the additional debt obligations that could be associated with potential delivery models on future LRT expansion.



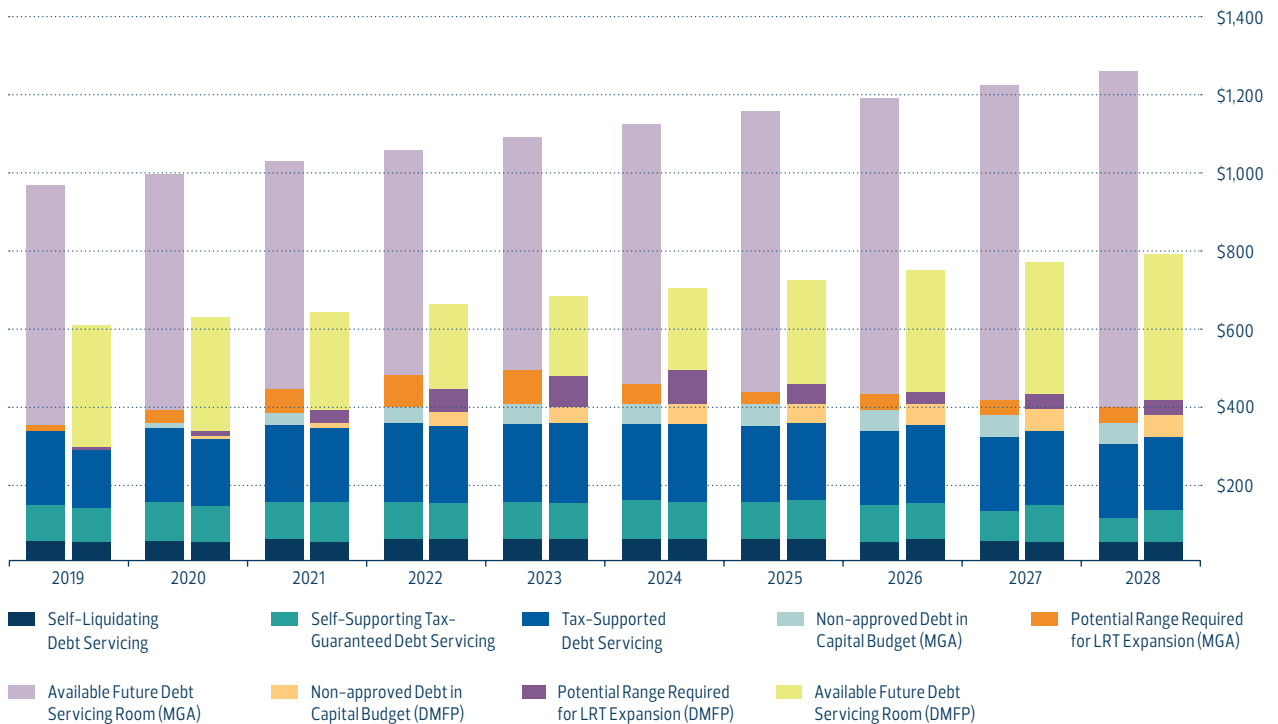
Debt Servicing: Total Debt Servicing

The City's use of debt as a financing tool means the amount of total debt servicing room available under the MGA and DMFP has decreased since 2014. However, the City still has room under both limits to borrow additional funds. In 2019, the City is projected to have \$617 million in available debt servicing room under the MGA. When including the debt financed projects for consideration in this capital budget as well as a potential range required for LRT expansion, this debt servicing room would decrease to \$580 million in 2022 based on a conservative annual revenue growth assumption of three per cent. Under the more restrictive debt servicing limit set by DMFP, the City is projected to have \$315 million in available borrowing room in 2019, which would shrink to \$220 million in 2022 using the same three per cent revenue growth assumption. A potential range has been shown

for the amount of debt service room that could be required for LRT expansion. In addition to the normal debt servicing costs associated with borrowing for LRT infrastructure, this range includes the potential for additional private interest and financing costs that could be part of a procurement model.

The City's self-liquidating debt servicing costs decreased substantially as a result of drainage operations transferring to EPCOR. This decrease, combined with the additional DMFP restriction on the amount of tax-supported debt servicing, means the City is not at risk of reaching 22 per cent total debt servicing limit unless a significant amount of self-liquidating debt capacity is added in the future.

Figure 3: Total Debt Servicing Limits - MGA and DMFP (\$ millions)

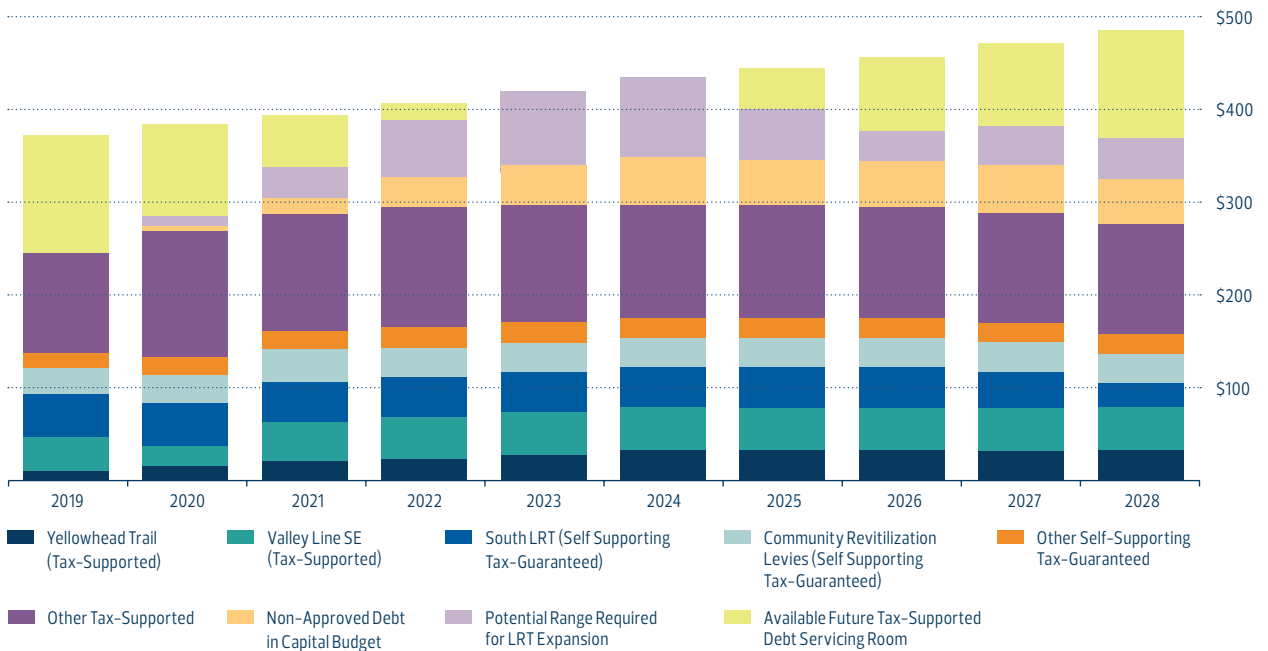


Debt Servicing: Tax-Supported Debt Servicing

The DMFP tax-supported debt servicing limit is the most restrictive to the City compared to the limits established by the MGA. The City is projected to have \$128 million in tax-supported debt servicing room available in 2019. When including the debt financed projects for consideration in the 2019–2022 capital budget as well as a potential range required for LRT expansion, the room available would decrease to \$18 million by 2022 based on

a conservative annual revenue growth assumption of three per cent. A potential range has been shown for the potential amount of debt service room that could be required for LRT expansion. In addition to the normal debt servicing costs associated with borrowing for LRT infrastructure, this range includes the potential for additional private interest and financing costs that could be part of a procurement model.

Figure 4: DMFP Tax-Supported Debt Servicing Limit (\$ millions)



Debt Servicing: Future Use of Debt

The use of debt as a capital infrastructure financing tool has provided enormous value to Edmonton and its residents. Debt has helped revitalize the city and improved the quality of life for Edmontonians. While the City continues to operate well under its legislated debt limits, it is important to note that the City's use of debt in recent capital budget cycles has increased significantly compared to the past. The City cannot continue to accumulate debt at the same pace without encroaching on internal debt limits in future budget cycles. The City must maintain enough flexibility to be able to respond to emerging needs while maximizing the use of matching grant funding from other orders of government to develop high priority projects. Any delay in funding will force the City to either delay large priority projects to an undetermined future date or take on additional interim borrowing to bridge these gaps. Interim borrowing creates additional debt that will increase pressures on the City's debt limits, as well as generating additional interest costs that escalate the total amount of funding required to complete these projects.

As current debt is retired, tax-supported debt servicing costs are reduced, which creates room that can be used to fund new projects without having an incremental impact on the City's tax rate. The City's available debt servicing capacity between 2019 and 2026 has been allocated to fund the Valley Line Southeast. Allocating newly available debt capacity to the Valley Line Southeast project will reduce the City's need to apply a tax levy in order to fund the operating impacts of the project. Available debt servicing capacity beyond this timeline has not been allocated to other capital projects.

Potential Projects to be Considered for Debt:

The following is a list of projects that, through the corporate prioritization process were rated as important to the City, but due to the limited funding available in this budget, would only be recommended for debt-financing should Council choose to proceed by granting its approval. These projects are listed below and not ranked in any particular order:

- Ambleside Integrated Site
- Lewis Farms Community Recreation Centre and Library
- Terwillegar Drive Expressway Upgrades: Stage 1
- Edmonton Soccer Association South Soccer Centre Expansion
- Stadium LRT Station Upgrade
- EPS Firearms Training Facilities
- On-Site Microgeneration Solar Photovoltaics
- LED Streetlight Conversion
- Valley Zoo Nature's Wild Backyard Phase 2

The debt servicing associated with financing these proposed tax-supported projects through debt is outlined in Table 5. Based on preliminary project estimates, the overall total anticipated tax increase, spread-out over 2019 to 2025, associated with debt servicing of the new projects is 2.38 per cent, or an average annual increase of 0.39 per cent over these years.

Table 5: Debt Servicing on Potential New Profiles with Debt Financing

The cost of operating and maintaining new or expanded infrastructure must be considered when evaluating capital projects. Depending on the timing of when new projects are complete and in operation, their operating costs could have an impact on the 2019–2022 Operating Budget. The operating costs of these projects are shown in their corresponding profiles in Appendix B.

Estimated Annual Tax Levy Revenue Required to Fund Debt Servicing Costs (In \$000s)							
Projects	2019	2020	2021	2022	2023	2024	2025
Lewis Farms Community Recreation Centre and Library	189	1,593	5,025	9,281	13,881	18,932	18,932
Valley Zoo Nature's Wild Backyard Phase 2	128	924	2,179	2,759	2,803	2,803	2,803
LED Streetlight Conversion	125	785	1,580	2,301	2,382	2,382	2,382
Edmonton Soccer Association South Soccer Centre Expansion	88	579	1,132	1,132	1,132	1,132	1,132
Ambleside Integrated Site	77	529	1,324	2,281	2,596	2,613	2,613
EPS Firearms Training Facilities	29	251	931	2,243	3,686	4,918	5,658
Stadium LRT Station Upgrade	17	119	391	1,199	2,107	2,107	2,107
On-Site Microgeneration Solar Photovoltaics	14	113	390	887	1,408	1,467	1,467
Terwillegar Drive Expressway Upgrades – Stage 1	12	312	1,786	4,141	6,260	6,492	6,492
Totals	679	5,204	14,738	26,225	36,255	42,847	43,587

Estimated Tax Levy Increases							
Projects	2019	2020	2021	2022	2023	2024	2025
Lewis Farms Community Recreation Centre and Library	0.01%	0.08%	0.19%	0.23%	0.24%	0.25%	-
Valley Zoo Nature's Wild Backyard Phase 2	0.01%	0.05%	0.07%	0.03%	-	-	-
LED Streetlight Conversion	0.01%	0.04%	0.04%	0.04%	-	-	-
Edmonton Soccer Association South Soccer Centre Expansion	0.01%	0.03%	0.03%	-	-	-	-
Ambleside Integrated Site	-	0.03%	0.04%	0.05%	0.02%	-	-
EPS Firearms Training Facilities	-	0.01%	0.04%	0.07%	0.07%	0.06%	0.03%
Stadium LRT Station Upgrade	-	0.01%	0.02%	0.04%	0.05%	-	-
On-Site Microgeneration Solar Photovoltaics	-	0.01%	0.02%	0.03%	0.03%	-	-
Terwillegar Drive Expressway Upgrades – Stage 1	-	0.02%	0.08%	0.13%	0.11%	0.01%	-
Totals	0.04%	0.27%	0.54%	0.62%	0.52%	0.32%	0.03%

ALLOCATION OF FUNDING TO PROJECTS

Balancing Renewal and Growth

Making investment choices that balance renewal and growth poses a significant challenge. The best possible balance between growth and renewal should ensure that capital investment maximizes benefits, reduces risk and provides satisfactory levels of service to the public.

Renewal refers to investments in existing infrastructure to restore it to its former condition and extend its service life. This may include replacing individual components as they age or become obsolete. Capital investment in renewal extends the potential service life of the infrastructure in question. However, the replacement value of renewed infrastructure remains unchanged and the size of the infrastructure asset portfolio does not increase as a result of investments in renewal.

Growth refers to investments in new assets and projects that add to or enhance components of existing infrastructure assets that improves the type of service provided and/or improves functionality. Some profiles may include both renewal and growth components. To be considered a renewal project in the 2019–2022 Capital Budget, no more than 10 per cent of the total project cost may be allocated to pay for enhancements and/or upgrades. Any profile with more than 10 per cent of its cost dedicated to enhancement and upgrades is considered a growth profile.

To maintain this balance and meet recommended targets for the City's asset inventory, Administration proposes earmarking \$1.9 billion for renewal between 2019 and 2022.

With a renewal investment of this magnitude and taking into account the previously approved \$1.8 billion funding of growth profiles, this Budget proposes an additional \$0.5 billion to invest in new growth projects over the next four years for a total of \$4.3 billion. An additional \$0.9 billion has been approved for growth profiles to be expended in 2023 and beyond. The \$1.9 billion proposed for renewal for 2019–2022 represents a 45 per cent allocation of the overall budget to renewal projects leaving 55 per cent approved for growth. These percentages reflect the City's continued focus on renewal investment during a budget period that includes several large-scale transformational growth projects, such as the Valley Line Southeast LRT, Blatchford redevelopment and the Yellowhead Trail Freeway Conversion.

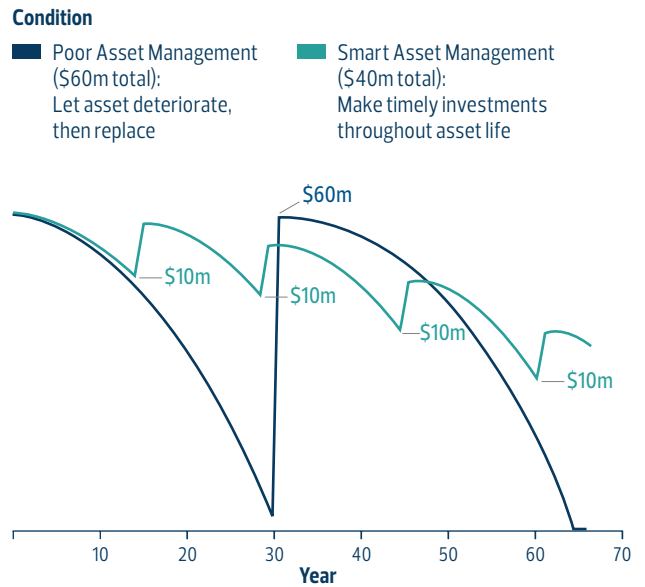
Renewal

Why we invest in renewal

When the City discusses the concept of renewal, this refers to investment in existing infrastructure to restore it to an efficient operational condition and extend its service life. This might include replacement of individual components as they age or become obsolete. Capital investment in renewal extends the period of service potential but does not change the replacement value, which means it doesn't increase the size of the infrastructure asset portfolio.

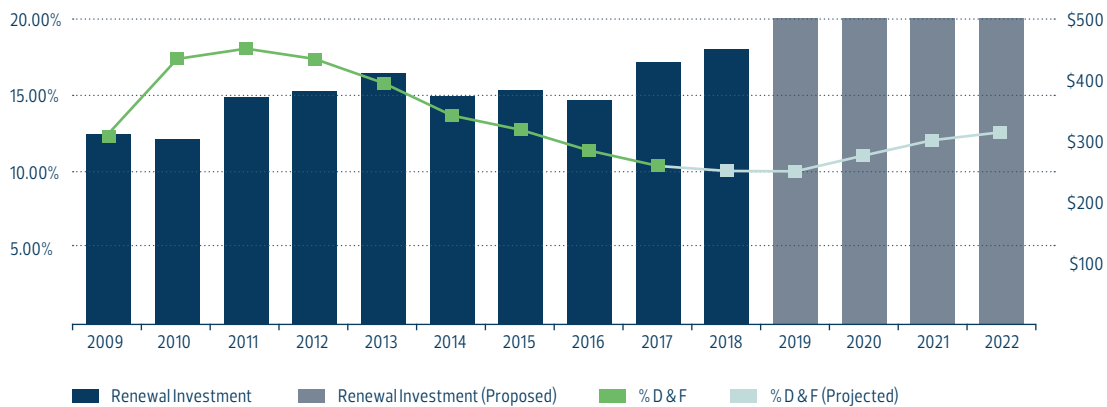
Renewal activities must ensure the City's existing assets are safe, meet the needs of the assets' users and maximize its value to the City and its residents. Investing in renewal at key points throughout the life of an asset maintains its condition at a higher level, while extending the life of the asset. The result of good renewal investment is a reduced long-term requirement for capital funding while maintaining a suitable level of service for the assets' users.

The City manages a broad range of infrastructure assets like trails, trees, golf courses, police stations, recreation centres and transit garages. As of 2017, 49 per cent of City assets are in very good (A) /good condition (B), 41 per cent are in fair condition (C), 10 per cent are in poor (D) or very poor condition (F). This represents a 7.7 per cent reduction of assets in poor condition since 2011.



Source: Adapted from Ontario Ministry of Infrastructure, 2012, Building Together: Guide for Municipal Asset Management Planning

Figure 5: Breakdown of Renewal Funding Allocation (\$ millions)



The assets we invest in and how we allocate

Renewal projects focus on making the most of existing capital assets. The process of deciding what to fund and to what degree is achieved through a customized assessment methodology – the Risk-based Infrastructure Management System (RIMS) – which was developed by the City in 2011. Investing in renewal begins with a comprehensive understanding of the nature, scope and state of all City assets.

Over the last decade, RIMS has evolved into a dynamic analytical tool designed to predict the optimal funding for the renewal of existing infrastructure. The model uses an assets' current physical condition, its target physical condition, renewal investment options/costs, and expected life cycle deterioration curve to model the effect of different investment options and their timing throughout the life of the asset. Ideally, the condition of any asset will fall within an acceptable tolerance range or standard. This tolerance, or conversely, the physical condition beyond which the deterioration is unacceptable, differs for every asset. The City's assets are there to provide a service such as recreation, transportation and protection. The physical standard is dependent

on the type of service the asset is providing, the risk to the City if it fails, and the best combination of investment and performance to maximize the life of the asset at a minimized cost. In other words, when deciding what to renew the City considers a combination of the condition of an asset, how important it is, and the most effective investment to maximize the value of the asset to the City.

Following Council's feedback from the Capital Investment Outlook (CIO) to continue to prioritize and invest in the renewal of existing infrastructure and given current funding constraints to reduce the impact to the 2019–2022 budget, renewal program allocations have been adjusted to approximately 90 per cent of the ideal RIMS scenario, with the exception of Bridges and Auxiliary Structures (which has a lower risk tolerance) and programs that have dedicated funding (non-transit fleet, neighbourhood renewal, alley renewal). This adjustment maintains overall renewal MSI and Pay-As-You-Go funding at the same level as the 2015–2018 Capital Budget and is expected to result in a minor increase in the percentage of assets in D and F condition.

Figure 6: Renewal Profile Funding Allocation Compared to Ideal RIMS Allocation Scenario (\$ millions)

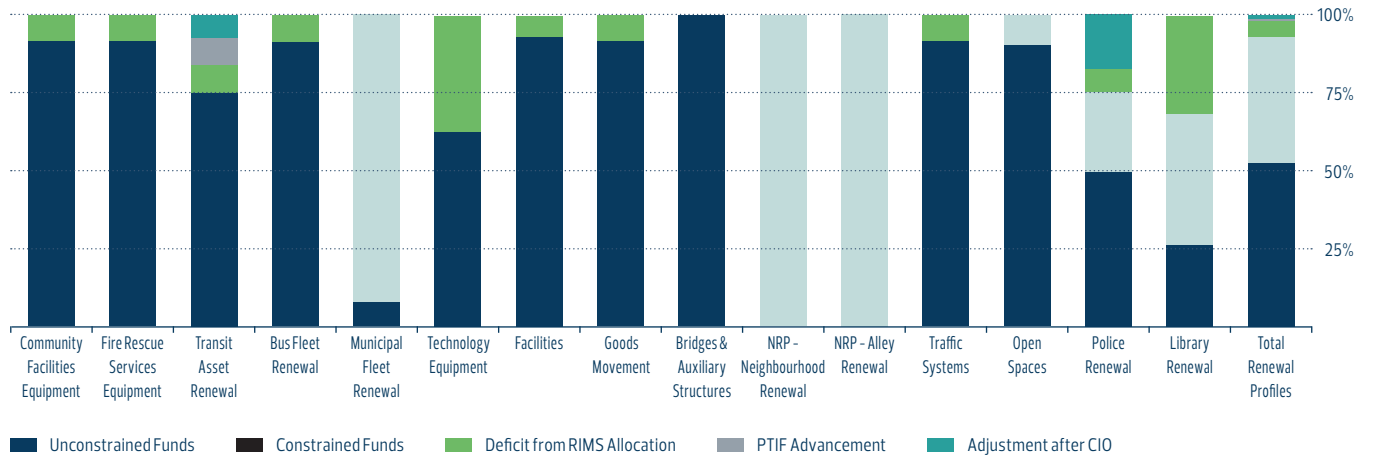
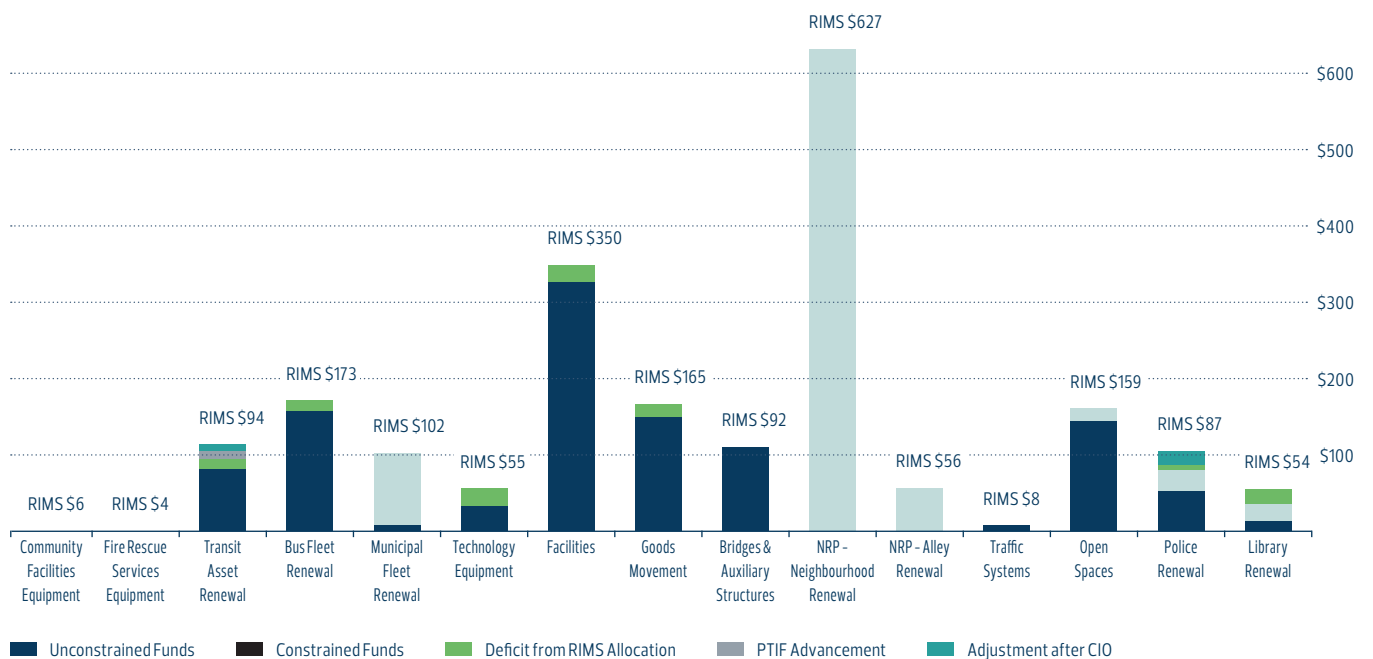


Figure 7: Breakdown of Renewal Funding Allocation (\$ millions)



Note: Values above bars represent Ideal RIMS Allocations

How we prioritize which assets are renewed

The RIMS system helps determine the appropriate funding levels to support the renewal of assets; however, significant work is completed by administration to determine which renewal projects proceed within any given time period. Renewal projects are prioritized using a combination of quantitative and qualitative data, and involve collaboration between several sections, branches and departments. Quantitative data, such as physical condition, asset age, and typical renewal schedules, are used to produce a 'rough cut' of the priorities, while qualitative data, such as alignment with Council priorities, and adjacencies with other projects, are used to further refine the priorities.

Case Study: Prioritizing Arterial Renewal

Each year, administration conducts assessments of the City's arterial road assets using the Automatic Road Analyser (ARAN) van, which collects pavement data at highway speeds in a calibrated, repeatable way. The van detects several measured parameters that together quantify the deterioration of the road. Arterial roadways are assessed once every two years, and structural integrity is measured every five years.

This information is used to determine the estimated lifespan of the road. This, and other factors such as the condition of the curbs, sidewalks and usage history are used to identify the appropriate renewal action (microsurfacing, repaving, reconstruction) to apply to the asset. This road asset and its renewal solution are compared against all other road assets to be ranked in order of priority for implementation. The priority ranking considers factors such as the current physical condition (is the asset in D or F condition?), risk of asset failure (based on the condition and use), level of impact to public and cost implications of delay. This prioritized list is then compared to identify potential adjacent projects (i.e. revitalization opportunities) with a focus to reduce impact to the public and to achieve cost savings through consolidation of work. Further review is conducted to identify projects which align with Council priorities or to ensure balance of work throughout the City.

It is important to note that while one road may appear to be in worse shape than another, there are many factors that must be considered before Administration decides which roads must receive work. Priorities are set based on the results of the assessment process and resources are then allocated to where the need is greatest and where it makes the most sense in terms of the overall transportation network.

The end result is a long list of potential arterial renewal projects. This is where RIMS comes in. The allocated funding overall for arterial roads is determined by RIMS, based on the same fundamental data but with analysis that considers the overall progress of all arterial roads towards their level of service standard, relative to other City asset categories' progress. This determines the number of projects administration is able to deliver within the budget cycle. Thus, renewal planning considers both the relative priority of projects within an asset category and any asset category's priority within the complete inventory of the City's assets.

Renewal Program Management

A lifecycle management approach to the City's renewal program offers many benefits. One of these that will be implemented in 2019–2022 is a more holistic approach to managing both the project (on time, on budget) and the program (level of service, risk management, relative prioritization). This will have the benefit of looking past the costs and logistics of the project to what is being achieved by the project.

As individual renewal projects are developed and refined through to delivery, their project budgets will fluctuate. This fluctuation could occur due to scope refinement, risk management, or tender results. This fluctuation, aggregated with other renewal projects, will result in a change to available budget within a profile. If available budget within a profile is increased, additional projects can be added to the list for implementation. If available budget is reduced, some of the lower priority projects may need to be reduced in scope or delayed until another capital cycle. Changes within the available budget will require administration to maintain high levels of collaboration and communication to prioritize renewal projects throughout the budget cycle.

As was the case in the 2015–2018 Capital Budget, the 2019–2022 Capital renewal program has earmarked 10 per cent of expenditure for opportunistic growth. Applied at the project level but managed at the program level, this allocation allows for the efficient improvement of the functionality and capacity of assets undergoing renewal. Improvements beyond this allocation will require additional funding.

The City's largest renewal programs, including Neighbourhood Renewal (which includes Alley Renewal), Road Renewal, and Building and Facilities Rehabilitation, as well as Open Space renewal, are discussed in the following sections:

Neighbourhoods – Neighbourhood Renewal Program

To ensure quality of life for Edmontonians, the City must maintain and grow great neighbourhoods – the building blocks of a great city. Investments in neighbourhood assets maximize returns in economic growth, social uplift and community pride.

There are over 300 neighbourhoods in Edmonton. Through the Neighbourhood Renewal Program, the City ensures the sustainability of existing neighbourhood infrastructure by undertaking capital project enhancements in approximately 18 neighbourhoods per year. These investments focus on preserving the neighbourhood's street assets including sidewalks, lighting, signs and boulevard trees. Additional enhancements to calm traffic patterns and improve the safety of communities will be implemented at the same time through the Community Traffic Safety and Community Traffic Management programs.

Barring unexpected construction price escalation, and with the exception of the Alley Renewal Program, there is no longer a need for additional tax levies for the Neighbourhood Renewal Program in the 2019–2022 Capital Budget cycle. Also, there is no need to subsidize the program with grants from other orders of government. This is an outstanding achievement that places Edmonton in an enviable position within Canada.

Neighbourhood Renewal advances two of City Council's ten-year goals:

- **Healthy City:** Edmonton is a neighbourly city with community and personal wellness that embodies and promotes equity for all Edmontonians.
- **Urban Places:** Edmonton neighbourhoods are more vibrant as density increases, where people and businesses thrive and where housing options are plentiful.

The benefits of the program include:

- Combining reconstruction, overlay, and preventative maintenance, neighbourhoods will benefit from the program faster and at a lower cost than a reconstruction only (worst first) program
- Medium to large scale sidewalk renewal/replacement
- Rehabilitation of curb and gutters
- Replacement of aging light standards
- Construction of curb ramps and other intersection improvements
- Addressing missing links in sidewalks and the bike system
- Decorative streetlight option for reconstructed neighbourhoods

Neighbourhood renewal work includes:

Operating Program Funded

- **Microsurfacing** – roads are resealed with a thin asphalt ride surface. Microsurfacing candidates have good road conditions and are applied 10–12 years after road reconstruction or resurfacing

Capital Program Funded

- **Neighbourhood Overlay** – roads are repaved and sidewalk panels treated to eliminate trip hazards. Typically, these neighbourhood candidates have poor road conditions and good sidewalk conditions
- **Neighbourhood Reconstruction** – roads are repaved; sidewalk, curb and gutter, and street lights are replaced. Reconstruction neighbourhood candidates have poor sidewalk and fair to poor road conditions
- **Collector/Local Renewal** – with priority on bus routes
- **Northeast Road Reconstruction** – replacement of road with special drainage enhancement, selective concrete repair due to soft subgrade conditions that exist in the area
- **Street Light Renewal** – projects where street lights on local and collector roads are renewed outside of the renewal subprograms listed above

The City uses a lifecycle approach to residential roadway renewal to provide for maximum efficiency and life expectancy of neighbourhood infrastructure. Renewal methods have been developed, and if implemented properly during a neighbourhood's life cycle, allow for a 50–60 year life span. These are typically implemented as follows:

- Microsurfacing (preventative maintenance): year 10
- Roadway overlay: year 30
- Microsurfacing (preventative maintenance): year 40
- Reconstruction: year 50–60
- Major drainage and cast iron renewal at time of reconstruction.

For 2019–2022, the proposed Neighbourhood Renewal funding allocation is \$635 million (approximately \$158.8 million per year). In comparison, the 2015–2018 Neighbourhood Renewal program funding was \$568 million (approximately \$142 million per year).

Council's continuing focus on neighbourhood renewal will provide funding for 124 neighbourhood renewal projects over the next four years, including 22 neighbourhood reconstruction and 25 neighbourhood overlay projects. Approximately 85 kilometres of collector and other neighbourhood roads will be renewed.

Neighbourhoods: Alley Renewal Program

There are 1,180 kilometers of alleys in neighbourhoods across the City, with over 50 per cent of households having an alley network within the neighbourhood. The total value of the City's alley infrastructure is estimated at \$500 million, and two-thirds of them are in poor condition. Issues such as potholes, water ponding, and base failures are common and present significant safety, access reliability and maintenance challenges. With alleys being an integral part of the City's transportation network that provide access to residents, businesses, and industries, an effective alley renewal strategy is needed to ensure the City meets its goals for Healthy City and Urban Spaces.

The Alley Renewal Program outlines a cost-effective, long-term strategic approach to address the renewal and rebuilding of alleys in existing neighbourhoods. The program provides for the renewal of an alley roadway base, paving, and related work for alley lighting rehabilitation. The program design and funding aligns with Council's direction to achieve an overall condition of B (with no alleys in F condition) for the alley network by the year 2043.

City Council approved a proposed option for the Alley Renewal Strategy to provide \$22.3 million in annual funding by 2022 for Alley Renewal over 25 years (2019–2043). Planning, programming, pre-engineering and utility coordination are currently under way to allow construction to commence in 2019.

Estimated Alley construction delivery outcomes are as follows:

- 2019: 8–10 km of alley renewal construction
- 2020: 20–25 km of alley renewal construction
- 2021: 30–35 km of alley renewal construction
- 2022 to 2043: 45–55 km of alley renewal construction

Goods Movement – Arterial Road Renewal Program

Arterial roads are a critical component of any city's transportation infrastructure and their maintenance and rehabilitation ensure that people, goods and services continue to move effectively and efficiently.

The City's arterial roadway system has a replacement value of \$3.73 billion (includes road base, curb and sidewalks), or 10 per cent of the City's total assets. Arterial roads total approximately 3,300 lane kilometres in length and constitute nearly 14.5 million square metres of pavement.

The Arterial Renewal Program is composed of the following subprograms of renewal investments, depending on the age and condition of the roadway, as follows:

- Arterial Pavement Renewal – only the road pavement structure is renewed. Pavement renewal can include a wide range of renewal options but the typical pavement renewal option is where the road surface is milled off to a depth of 50mm to 75mm, and a new asphalt surface is placed. Candidates for Arterial Pavement Renewal have fair to poor surface condition but good structural condition and curbs and walks in good condition.
- Arterial Rehabilitation – road surface is milled off and a new asphalt surface is placed, sections of road base are replaced, portions of adjacent curbs and sidewalks are replaced and traffic lighting and signals are renewed. Bus stop pads are constructed in the roadway where required. Candidates for Arterial Rehabilitation are roads in poor condition with some structural deficiencies and fair overall curb and sidewalk condition.
- Arterial Reconstruction – complete roadway structure is reconstructed including road base, curbs and sidewalk, and renewal or replacement of traffic lighting and signals as required. Candidates for Arterial Reconstruction are those roads in poor to very poor condition, failing road base and curb and sidewalks in poor to very poor condition overall.
- Traffic Signal and Street Light Renewal – projects where stand-alone traffic light signals and/or street lights are renewed or replaced on arterial roadways outside of the road renewal subprograms listed above.

The City of Edmonton has a comprehensive and strategic program to assess, repair and maintain the thousands of kilometres of roadways that residents and businesses rely on every day to travel.

Arterial roadways are assessed for surface distress and ride comfort once every two years, and structural integrity every five years. These individual scores are then combined into an overall score called the Pavement Quality Index. Roads are ranked between 0 and 10 with the high number indicating an excellent, or A, condition. The assessed roadway network quality is compared to Council's overall target (fewer than 10 per cent of the arterial roads in D or F condition) to analyze the progression towards that objective.

In the 2015–2018 Capital Budget, Council approved funding of \$55 million annually to accelerate renewal of arterial roads. This followed several instances of Council's injection of one time "triage" funding into the 2012–2014 arterial program that was required due to a cut in arterial funding within those years. The accelerated approach succeeded, and the latest arterial road condition data indicates that condition target objectives have been met. In addition, the City encountered better than expected tender pricing/performance and less than expected deterioration, resulting in better than expected road conditions.

As Edmonton maintains a focus on both timely maintenance such as crack sealing and pothole repair, as well as a planned renewal program focused on condition, it is expected that the arterial roadway network will achieve better resilience to changing climate and usage and provide the essential people and goods movement functions citizens expect.

From the analysis completed for the 2019–2022 Capital Cycle, an annual funding level of \$41.3 million was found to be sufficient to fund the arterial renewal program in the 2019–2022 Capital Budget. This funding was designed to both keep up with natural deterioration as well as catch up to historical asset underinvestment. In accordance with the overall reduction to the renewal program as discussed in the preceding section, annual funding totalling \$37.7 million is proposed for the arterial (Goods Movement) renewal program.

Facility Renewal

The City owns approximately 950 facilities. The deterioration of City-owned facilities poses economic, safety, operational and environmental risks to the City. Primary factors underlying the deterioration include the age of City facilities and the number of years of inadequate investment in their maintenance and repair. About two-thirds of the facilities are over 30 years old and 28 per cent (approximately 270 facilities) are more than 50 years old. These factors are not new to the City and there are no quick fixes. However, the current environment provides both the impetus and the opportunity to place investments in maintenance and repair of City facilities on a new, more sustainable course for the 21st century. Going forward, Administration will continue to address the deterioration by making informed, strategic investments in existing facilities to address risk, keep the public safe, and maximize the utility and value of the asset. In accordance with the 2018 Infrastructure Strategy, in some cases it may not be financially feasible to continue to invest in certain facilities due to age, functional obsolescence or advanced deterioration. In those cases, Administration will work with stakeholders, the public and Council to determine the best course of action with these assets.

The City, in partnership with the University of Alberta, developed a Building Maintenance Decision Support System to facilitate a more strategic, portfolio-based, capital re-investment strategy. A critical part of this initiative is a comprehensive program of Facility Condition Assessments (conducted on a four to five year cycle). Data on various building assets are analyzed and deterioration models are produced for the various building systems. Conditions of critical building systems can be forecasted, which are used to measure, prioritize and predict outcomes of maintenance and repair investments.

The estimated current replacement value of City facilities considered in this budget is \$6.6 billion. Currently, the deferred maintenance backlog stands at \$825 million. In short, building investment has not kept pace with demands. Many of the City's facilities are deteriorating because of years of inadequate funding for their maintenance and repair, their age and other factors.

Historically, the City's combined maintenance and renewal funding level has consistently been less than the industry standard (National Research Council, 1996) range of two to four per cent of the current replacement value of the City's portfolio. Since 2007, funding levels have increased, which has resulted in an improvement to the overall condition of facility assets. The proposed 2019–2022 Capital Budget proposes an investment in facilities which is 4.8 per cent of the current replacement value.

The percentage of current replacement value outlined above is only meant to be a guideline. Administration uses a more robust measure, the Facility Condition Index (FCI), to gauge the overall condition of the City's facilities. Developed by the National Association of College and University Business Officers (NACUBO 1990), it measures the ratio of the magnitude of maintenance that was postponed, phased or deferred to the replacement value of the facility. The FCI metric, expressed as a percentage or as a number, can be used to define the facility's condition. A rating of:

- 1.00 to 0.95 (100–95 per cent) FCI is good;
- 0.95 to 0.90 (95–90 per cent) FCI is fair;
- 0.90 to 0.70 (90–70 per cent) FCI is marginal to poor; and,
- less than 0.70 (70 per cent) FCI is critical.

The overall FCI of City facilities for the last 4 years ranged from 0.89 to 0.87.

There is a recognition that maintenance and repair investments can result in an array of positive outcomes. Conversely, the lack of investment and the deferral of needed maintenance and repair projects can result in adverse events. The funding proposed for the renewal of facilities in the 2019–2022 Capital Budget is designed to continue the increasing focus on their effective renewal, maintaining a manageable inertia and clear reversal from years of inadequate funding. The program is also designed to contribute to a reduction of 15,000 tonnes of carbon dioxide (CO₂) in accordance with the Greenhouse Gas Strategy.

Open Spaces Renewal

Like the other asset areas, a systematic assessment program has been developed to understand the current condition of Open Space assets. Although periodic asset assessments have been performed over the years, the comprehensive planned program is relatively new. The current target is to achieve an ongoing 4–5 year assessment cycle for all open spaces assets.

The asset data collected is used to inform an Open Spaces asset renewal prioritization framework. It is designed to facilitate the systematic evaluation of asset data to identify renewal project candidates based on a select number of categories and scoring criteria. This assists with strategic decision-making, transparency, continuity, and risk identification and mitigation.

One aspect of Open Spaces renewal that is different from the other three asset areas is the reliance on “renewal programs” within each of the profiles to effectively manage the large volume of small (in dollar value as well as complexity) projects that are encountered in this asset area. For example, the replacement of park benches is handled as a singular program, whereas larger projects involving whole park renewal or higher value trail renewal locations are considered as individual projects. In both cases, Administration is relying on data based prioritization to inform a managed overall renewal program that improves condition, addresses high risk assets, and finds efficiency and consistency in the projects and program implementation.

One of the highlights of the proposed approach for Open Spaces renewal is a focus on integrated networks. Emphasis will be placed on the renewal of assets that help to interconnect and enable the more conventional park assets: trails, roads, parking lots, staircases, etc. In addition, funding for tree replacements is proposed, with additional funding for urban soil cells.

Growth

The main growth challenge the City faced in this budget cycle was the very limited funding available once constrained funding (funding that must be used for a specific purpose and cannot be reallocated), previously committed projects, and allocation to renewal were considered.

Looking beyond 2022 and with ongoing renewal needs, the City is unlikely to be able to adequately respond to the anticipated growth demands without additional funding sources beyond what is currently projected.

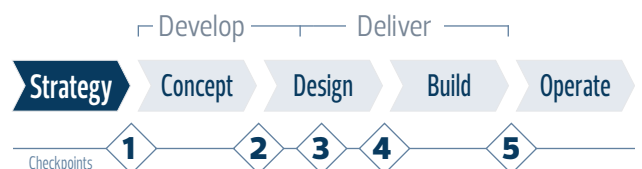
The majority of growth investment in 2019–2022 is related to profiles previously approved by Council. These profiles are significant transformational projects, which include the Valley Line Southeast LRT, Yellowhead Trail Freeway Conversion and the Blatchford redevelopment.

Recommended Growth Project Allocation

Potential growth projects were initially ranked using the Prioritization Criteria approved by Council on June 26, 2018. These criteria included relative and qualitative assessments that align with Council’s approved goals. The results of this work were then put through additional considerations, taking into account project timing, synergies with other projects, relevance to current issues, integration with renewal, addressing occupational and health safety issues and external influences. A list of recommended projects was then matched against available funding (unconstrained or constrained). The proposed projects represent Administration’s best recommendation, given the current available resources, balancing our ability to achieve the City’s Corporate outcomes and meet some immediate needs. A complete list of the projects that are recommended for funding in this budget, including what checkpoint the project is currently funded to, as well as what checkpoint the project would reach, should funding be approved as recommended, are noted in Table 6, below.

Growth projects that Administration does not recommend to proceed at this time based on limited available unconstrained funding are also referenced on the table. For these projects, Administration has referenced what checkpoint they are currently funded for. The table also references what checkpoint the project would be funded for, should Council choose for a project to proceed.

For reference, the checkpoints are noted in the following graphic and further outlined below:



Checkpoint 1: Project Initiation

Projects are reviewed for readiness to begin, and receive funding for concept development; includes assessment of project for maturity, appropriate definition of scope and priority.

Checkpoint 2: Authorization for Design Expenditure

Once concept development is complete, the project will be evaluated to receive additional funding for preliminary or schematic design. The project must be at an appropriate maturity level and the scope must be confirmed to improve confidence in understanding schedule and budget requirements.

Checkpoint 3: Approval for Capital Budget

A level of design is completed on the project to the point that risks are appropriately identified and mitigated and a defined schedule and budget can be set relative to the identified scope. Depending on the size and complexity of the project, the level of design completed may vary. At this point, projects could be approved for funding for detailed design and construction.

Checkpoint 4: Authorization for Construction Expenditure

A final check is undertaken prior to projects being tendered. This will include an assessment of readiness and a final scope review. If the project is not within the approved scope, budget and schedule, a change request may be considered or the project may be sent back for revision.

Checkpoint 5: Handover

Once the project is complete, a handover process is undertaken to ensure that the scope is satisfactory and all closeout activities are completed. The project is commissioned and available for public service.

In the case of a composite program of projects, the table also identifies the estimated "per cent of target" or the per cent of funding being recommended for the program relative to the identified maximum requirements over a four year period. The composite program may then also appear on the unfunded list for the percentage of funding that was identified, but not recommended due to limited funding. For example, Turf Management: Sports Field Upgrades is recommended for only 5% of the total funding for the program that would have been optimal based on identified need. The other 95% is identified on the unfunded table, but is not recommended for funding at this time due to limited funding available.

In the case of a composite program of projects, the table also references the percent of funding being recommended relative to the identified requirements. As such, a composite program may appear on both the funded and unfunded lists within the table.

The list of growth projects is as follows:

Table 6: Potential Growth Projects

Growth Projects Recommended for Funding in this Budget Include:

PROJECTS FUNDED WITH UNCONSTRAINED SOURCES (\$198 MILLION)		Percent of Target	Checkpoint				
			1	2	3	4	5
RECREATION, PARKS CULTURE & ATTRACTIONS							
Recreation	Clarke Stadium Enhancements	✓	●	●	●	●	●
	Heritage Valley Recreation Centre and Library	✓	●	●	●	●	●
	Rollie Miles Athletic Grounds – Park Redevelopment	✓	●	●	●	●	●
	Swimming Pool OHS Improvements (various)	90%	●	●	●	●	●
	Turf Management – Sports Field Upgrades	5%	●	●	●	●	●
Parks	Cemeteries Master Plan Implementation	25%	●	●	●	●	●
	Dogs and Open Spaces (various)	5%	●	●	●	●	●
	Heritage Valley District Park	✓	●	●	●	●	●
	Naturalization & Urban Canopy Expansion	10%	●	●	●	●	●
	Root for Trees	✓	●	●	●	●	●
	School Park Site Development (various)	✓	●	●	●	●	●
	Shared Park Development Program (various)	50%	●	●	●	●	●
	Terwillegar Heights District Park – Master Plan Review	✓	●	●	●	●	●
	Terwillegar River Valley Park	✓	●	●	●	●	●
PUBLIC TRANSIT							
Transit	Transit Safety and Security	1%	●	●	●	●	●

● Current Funded Checkpoint ● Next Funding Checkpoint for Consideration ● Checkpoint(s) remaining
 ✓ Indicates standalone project potentially funded to suggested checkpoint
 x% Indicates portion of program potentially funded

PROJECTS FUNDED WITH UNCONSTRAINED SOURCES (\$198 MILLION) (CONT'D)		Percent of Target	Checkpoint				
			1	2	3	4	5
ROADS							
Active Transportation	Active Transportation (various)	5%	●	●	●	●	●
	Minimum Bike Grid (Phase 2 - Strathcona & Garneau)	✓	●	●	●	●	●
Arterial	Whitemud Drive (207-231 Street) Upgrading/Widening	✓	●	●	●	●	●
	Arterial Roadway - Operational Improvements	✓	●	●	●	●	●
Complete Streets	105 Avenue (Columbia Avenue) - Stage 2 (109-116 Street)	✓	●	●	●	●	●
	Imagine Jasper Avenue Base Streetscape - Stage 1 (109-116 Street)	✓	●	●	●	●	●
PUBLIC SAFETY							
Edmonton Police Service	Police IT - Applications Enhancement	100%	●	●	●	●	●
Fire Rescue Services	Charlesworth Fire Station	✓	●	●	●	●	●
	Fire Fleet Growth	N/A	●	●	●	●	●
	Fire Station Gear Rooms	100%	●	●	●	●	●
NEIGHBOURHOODS							
Neighbourhood Development	Community Hubs	10%	●	●	●	●	●
	Corner Stores	100%	●	●	●	●	●
	Neighbourhood Revitalizations	50%	●	●	●	●	●
	Industrial Roads	10%	●	●	●	●	●

● Current Funded Checkpoint ● Next Funding Checkpoint for Consideration ● Checkpoint(s) remaining

✓ Indicates standalone project potentially funded to suggested checkpoint

x% Indicates portion of program potentially funded

PROJECTS FUNDED WITH UNCONSTRAINED SOURCES (\$198 MILLION) (CONT'D)		Percent of Target	Checkpoint				
			1	2	3	4	5
CORPORATE SUPPORT							
Information Technology	eProcurement	✓	●	●	●	●	●
	Information Security and Disaster Recovery Enhancements	100%	●	●	●	●	●
	Recreation and Attractions Management (RAMS) Program	✓	●	●	●	●	●
	Technology Implementation – Growth	100%	●	●	●	●	●
	Technology Planning – Growth	100%	●	●	●	●	●
Yards & Facilities	Century Place Densification	✓	●	●	●	●	●
	Operational Yards OHS/Security Improvements (various)	100%	●	●	●	●	●
	Snow Storage Sites Upgrades	✓	●	●	●	●	●
PROJECTS FUNDED BY DEDICATED SOURCES (\$306 MILLION)							
PUBLIC TRANSIT							
Transit	Transit Smart Fare System (Smart Card)	✓	●	●	●	●	●
HOUSING							
Affordable Housing	Surplus School Sites – First Place Program	N/A	●	●	●	●	●
NEIGHBOURHOODS							
Neighbourhood Development	Residential/Mixed-Use Land Development Acquisition	N/A	●	●	●	●	●
	Residential/Mixed-Use Land Development	N/A	●	●	●	●	●

● Current Funded Checkpoint ● Next Funding Checkpoint for Consideration ● Checkpoint(s) remaining
 ✓ Indicates standalone project potentially funded to suggested checkpoint
 x% Indicates portion of program potentially funded

PROJECTS FUNDED BY DEDICATED SOURCES (\$306 MILLION) (CONT'D)		Percent of Target	Checkpoint				
			1	2	3	4	5
ECONOMIC DEVELOPMENT							
Land Development	ICI Land Development	N/A	●	●	●	●	●
	ICI Land Development Acquisition	N/A	●	●	●	●	●
	Transforming Surplus City Lands	N/A	●	●	●	●	●
Community Revitalization Levies	Civic Precinct Enhancement (Centennial Plaza)	✓	●	●	●	●	●
	Warehouse Campus Neighbourhood Central Park	✓	●	●	●	●	●
	Green and Walkable Downtown - Phase 2	✓	●	●	●	●	●
	Jasper Avenue New Vision Phase 3	✓	●	●	●	●	●
PROJECTS THAT MAY LEVERAGE PARTNERSHIP FUNDING (\$43 MILLION)							
RECREATION, PARKS CULTURE & ATTRACTIONS							
Parks	Bulyea Heights Park Redevelopment	✓	●	●	●	●	●
	Parks Amenity and Benchmark Program (various)	100%	●	●	●	●	●
	River Valley Alliance - Phase 2 (City Contribution)	✓	●	●	●	●	●
HOUSING							
Affordable Housing	Affordable Housing Land Acquisition and Site Prep	N/A	●	●	●	●	●
NEIGHBOURHOODS							
Neighbourhood Development	Neighbourhood Park Development Program (various)	80%	●	●	●	●	●

● Current Funded Checkpoint ● Next Funding Checkpoint for Consideration ● Checkpoint(s) remaining

✓ Indicates standalone project potentially funded to suggested checkpoint

x% Indicates portion of program potentially funded

Growth Projects Requested but not Recommended for Funding Include:

PROJECTS FUNDED WITH UNCONSTRAINED SOURCES		Percent of Target	Checkpoint				
			1	2	3	4	5
RECREATION, PARKS CULTURE & ATTRACTIONS							
Recreation	Various Baseball Diamond Enhancements	100%	●	●	●	●	●
	Bonnie Doon Twin Arena (includes Single Arena closures)	✓	●	●	●	●	●
	Clarke Stadium Enhancements	✓	●	●	●	●	●
	Commonwealth Stadium – FIFA Requirements	✓	●	●	●	●	●
	Londonderry Heights Artificial Turf	✓	●	●	●	●	●
	Riverside Golf Course Pavilion and Clubhouse	✓	●	●	●	●	●
	Rollie Miles Athletic Grounds: Park Redevelopment	✓	●	●	●	●	●
	Rollie Miles Leisure Centre	✓	●	●	●	●	●
	Rundle Golf Course Driving Range Development	✓	●	●	●	●	●
	Terwillegar Heights Artificial Turf	✓	●	●	●	●	●
	Swimming Pool OHS Improvements – Additional Locations (various)	100%	●	●	●	●	●
	Turf Management: Sports Field Upgrades	95%	●	●	●	●	●
Edmonton Public Library	Riverbend Library Relocation	✓	●	●	●	●	●
	Woodcroft Library Expansion	✓	●	●	●	●	●
Parks	Confederation Park Redevelopment Upgrades	✓	●	●	●	●	●
	Cemeteries Master Plan Implementation	75%	●	●	●	●	●
	Dogs and Open Spaces (various)	95%	●	●	●	●	●
	District Activity Park Development – Additional Locations	✓	●	●	●	●	●

● Current Funded Checkpoint ● Next Funding Checkpoint for Consideration ● Checkpoint(s) remaining
 ✓ Indicates standalone project potentially funded to suggested checkpoint
 x% Indicates portion of program potentially funded

PROJECTS FUNDED WITH UNCONSTRAINED SOURCES (CONT'D)		Percent of Target	Checkpoint				
			1	2	3	4	5
Parks (cont'd)	Glengarry Park Redevelopment Upgrades	✓	●	●	●	●	●
	Horse Hills District Park	✓	●	●	●	●	●
	Ivor Dent Sports Park - Phase III	✓	●	●	●	●	●
	John Fry Park Master Plan Implementation	✓	●	●	●	●	●
	North Shore Promenade	✓	●	●	●	●	●
	Queen Elizabeth Phase 3	✓	●	●	●	●	●
	Queen Elizabeth School Park Redevelopment Upgrades	✓	●	●	●	●	●
	Suburban Park Development - Additional Locations	30%	●	●	●	●	●
	Touch the Water	✓	●	●	●	●	●
	Valley Zoo - Solar/Green Parking Lot & Stormwater Management	✓	●	●	●	●	●
	Mary Burlie Park	✓	●	●	●	●	●
	School Park Site Development - Additional Locations	100%	●	●	●	●	●
	Shared Park Development Program - Additional Locations	50%	●	●	●	●	●
	Naturalization & Urban Canopy Expansion - Additional Locations	90%	●	●	●	●	●
	Culture and Attractions	Northwest Seniors Centre	✓	●	●	●	●
Strathcona 55 Plus Seniors Facility		✓	●	●	●	●	●

● Current Funded Checkpoint ● Next Funding Checkpoint for Consideration ● Checkpoint(s) remaining

✓ Indicates standalone project potentially funded to suggested checkpoint

x% Indicates portion of program potentially funded

PROJECTS FUNDED WITH UNCONSTRAINED SOURCES (CONT'D)		Percent of Target	Checkpoint				
			1	2	3	4	5
PUBLIC TRANSIT							
LRT	Churchill LRT Station Upgrade – Phase 1	✓	●	●	●	●	●
Transit	Ellerslie Road Transit Centre and Park and Ride	✓	●	●	●	●	●
	Paterson Garage Expansion for 60ft Buses	✓	●	●	●	●	●
	Ferrier Garage Bus Storage Replacement	✓	●	●	●	●	●
	Integrated Traffic/Transit Control Centre	✓	●	●	●	●	●
	New Transit Bus Garage (Location Unknown)	✓	●	●	●	●	●
	Windemere North (Ambleside) Transit Centre and Park and Ride	✓	●	●	●	●	●
	Transit Priority Improvements – Heritage Valley to Century Park	✓	●	●	●	●	●
	Touch Screen Information System (Valley Line)	✓	●	●	●	●	●
	Electronic Fareboxes	✓	●	●	●	●	●
	Train-to-Wayside Communications and Integration	✓	●	●	●	●	●
	Growth Auxiliary Vehicles	✓	●	●	●	●	●
	Operational & Safety Activity Database	✓	●	●	●	●	●
	LRT Pedestrian Crossing Upgrades	✓	●	●	●	●	●

● Current Funded Checkpoint ● Next Funding Checkpoint for Consideration ● Checkpoint(s) remaining

✓ Indicates standalone project potentially funded to suggested checkpoint

x% Indicates portion of program potentially funded

PROJECTS FUNDED WITH UNCONSTRAINED SOURCES (CONT'D)		Percent of Target	Checkpoint				
			1	2	3	4	5
ROADS							
Active Transportation	Saskatchewan Drive Bike Network Improvements (104 Street to 109 Street)	✓	●	●	●	●	●
	Saskatchewan Drive Bike Network Improvements (99 Street to 104 Street)	✓	●	●	●	●	●
	Active Transportation - Additional Locations	95%	●	●	●	●	●
	23 Avenue Urbanization - South Boulevard and Sidewalk (Rabbit Hill to Terwillegar)	✓	●	●	●	●	●
	CP Rail Shared Use Path in Strathcona & Garneau	✓	●	●	●	●	●
Goods Movement	107 Avenue Improvements	✓	●	●	●	●	●
	142 Street Traffic Circle Replacement	✓	●	●	●	●	●
	118 Avenue / 101 Street Traffic Circle Reconstruction	✓	●	●	●	●	●
	17 Street (76 Avenue to Sherwood Park Freeway) 4 Lane Urbanization	✓	●	●	●	●	●
	34 Street (76 Avenue to Sherwood Park Freeway) 4 Lane Urbanization	✓	●	●	●	●	●
	50 Street (76 Avenue to Sherwood Park Freeway) 6 Lane Widening	✓	●	●	●	●	●
	Meridian Street (153 to 167 Avenue) 2 Lane Upgrading	✓	●	●	●	●	●
	Whitemud Drive (207 to 215 Street) 4 Lane Widening	✓	●	●	●	●	●
	Whitemud Drive (215 to 231 Street) 4 Lane Widening	✓	●	●	●	●	●
Arterial	112 Street / 167 Avenue 4 Lane Widening	✓	●	●	●	●	●
	184 Street (107 Avenue to Yellowhead Trail) 4 Lane Widening	✓	●	●	●	●	●

● Current Funded Checkpoint ● Next Funding Checkpoint for Consideration ● Checkpoint(s) remaining

✓ Indicates standalone project potentially funded to suggested checkpoint

x% Indicates portion of program potentially funded

PROJECTS FUNDED WITH UNCONSTRAINED SOURCES (CONT'D)		Percent of Target	Checkpoint				
			1	2	3	4	5
Arterial (cont'd)	215 Street (Webber Greens Drive to Stony Plain Road) 4 Lane Widening	✓	●	●	●	●	●
	215 Street (Whitemud Drive to Webber Greens Drive) 4 Lane Widening	✓	●	●	●	●	●
	66 Street SW (Ellerslie Road to 23 Avenue) 4 Lane Widening	✓	●	●	●	●	●
	Ellerslie Road (115 Street to 127 Street) 4 Lane Widening	✓	●	●	●	●	●
	Parsons Road (19 Avenue – Ellerslie Road) 4 Lane Widening	✓	●	●	●	●	●
	167 Avenue (76 – 52A Street) 4 Lane Widening	✓	●	●	●	●	●
	50 Street (153 –167 Avenue) 4 Lane Widening	✓	●	●	●	●	●
	66 Street (158 Avenue to 167 Avenue) 4 Lane Widening	✓	●	●	●	●	●
Bridges, Interchanges & Auxiliary Structures	50 Street (Sherwood Park Freeway – 76 Avenue) Widening	✓	●	●	●	●	●
	135 Street / SW Anthony Henday Drive Interchange	✓	●	●	●	●	●
Complete Streets	101 Avenue (76 Street to 50 Street) Streetscape	✓	●	●	●	●	●
	124 Street (111 Avenue to 118 Avenue) Streetscape	✓	●	●	●	●	●
	Complete Streets (various)	100%	●	●	●	●	●
	Imagine Jasper Avenue Base Streetscape – Future Phases	✓	●	●	●	●	●
	105 Avenue (Columbia Avenue) – Future Phases	✓	●	●	●	●	●
Traffic Safety	Parks and Roads – Fleet Optimization	N/A	●	●	●	●	●

● Current Funded Checkpoint
 ● Next Funding Checkpoint for Consideration
 ● Checkpoint(s) remaining
 ✓ Indicates standalone project potentially funded to suggested checkpoint
 x% Indicates portion of program potentially funded

PROJECTS FUNDED WITH UNCONSTRAINED SOURCES (CONT'D)		Percent of Target	Checkpoint				
			1	2	3	4	5
PUBLIC SAFETY							
Edmonton Police Service	Operations & Intelligence Command Centre	✓	●	●	●	●	●
Fire Rescue Services	Charlesworth Fire Station	✓	●	●	●	●	●
	Cumberland Fire Station and Backup Data Centre	✓	●	●	●	●	●
NEIGHBOURHOODS							
Neighbourhood Development	River Crossing/West Rosedale Redevelopment	✓	●	●	●	●	●
	Community Hubs	90%	●	●	●	●	●
	Strathearn Heights Transit Oriented Development	✓	●	●	●	●	●
	Industrial Roads - Future Phases	90%	●	●	●	●	●
	Neighbourhood Revitalizations - Additional Locations	100%	●	●	●	●	●
CORPORATE SUPPORT							
Yards & Facilities	Century Place Densification	✓	●	●	●	●	●
	Snow Storage Sites Upgrades - Future Phases	✓	●	●	●	●	●
	Snow Plow Cleaning and Equipment	N/A	●	●	●	●	●

● Current Funded Checkpoint
 ● Next Funding Checkpoint for Consideration
 ● Checkpoint(s) remaining
 ✓ Indicates standalone project potentially funded to suggested checkpoint
 x% Indicates portion of program potentially funded

PROJECTS FUNDED BY DEDICATED SOURCES		Percent of Target	Checkpoint				
			1	2	3	4	5
RECREATION, PARKS CULTURE & ATTRACTIONS							
Parks	District Park Land Acquisition (FMP Repayment)	N/A	●	●	●	●	●
	District Park Land Acquisition (New ASPs)	N/A	●	●	●	●	●
	Mature Area Land Acquisition	N/A	●	●	●	●	●
	River Valley Land Acquisition	N/A	●	●	●	●	●
	Suburban School and Park Land Acquisition	N/A	●	●	●	●	●
ROADS							
Traffic Safety	Community Traffic Safety Countermeasures	✓	●	●	●	●	●
	Traffic Safety - Speed Management Equipment	✓	●	●	●	●	●
	Traffic Safety - Engineering Measures	✓	●	●	●	●	●
	Traffic Signals - Developer and ARA Funded	✓	●	●	●	●	●
	Traffic Signals - Pedestrian/Vehicle Safety	✓	●	●	●	●	●
PROJECTS THAT MAY LEVERAGE PARTNERSHIP FUNDING							
RECREATION, PARKS CULTURE & ATTRACTIONS							
Parks	River Valley Alliance - Phase 2 (City Contribution)	✓	●	●	●	●	●
NEIGHBOURHOODS							
Neighbourhood Development	Neighbourhood Park Development Program - Additional Locations	20%	●	●	●	●	●

● Current Funded Checkpoint ● Next Funding Checkpoint for Consideration ● Checkpoint(s) remaining

✓ Indicates standalone project potentially funded to suggested checkpoint

x% Indicates portion of program potentially funded

PROJECTS POTENTIALLY FINANCED BY DEBT		Percent of Target	Checkpoint				
			1	2	3	4	5
RECREATION, PARKS CULTURE & ATTRACTIONS							
Recreation	Edmonton Soccer Association South Soccer Centre Expansion	✓	●	●	●	●	●
	Lewis Farms Community Recreation Centre and Library	✓	●	●	●	●	●
Culture and Attractions	Valley Zoo Nature's Wild Backyard Phase 2	✓	●	●	●	●	●
PUBLIC TRANSIT							
LRT	Stadium LRT Station Upgrade	✓	●	●	●	●	●
ROADS							
Arterial	Terwillegar Drive Expressway Upgrades - Stage 1	✓	●	●	●	●	●
PUBLIC SAFETY							
Edmonton Police Service	Firearms Facilities	✓	●	●	●	●	●
CORPORATE SUPPORT							
Yards & Facilities	On-Site Microgeneration Solar Photovoltaics	100%	●	●	●	●	●
	LED Streetlight Conversion	100%	●	●	●	●	●
	Ambleside Integrated Site	✓	●	●	●	●	●

● Current Funded Checkpoint ● Next Funding Checkpoint for Consideration ● Checkpoint(s) remaining

✓ Indicates standalone project potentially funded to suggested checkpoint

x% Indicates portion of program potentially funded

Carryforwards

In preparing for the 2019–2022 budget, a review was undertaken of previously approved profiles. Profiles were reviewed where projects were close to completion, tender costs were different from what initially forecast, or project schedules had changed or been deferred and cash flow redistributed to future years. Funding released through this process is available for re-allocation to new profile asks in this budget cycle. Based on this review, \$34.0 million has been identified for reallocation to fund projects in the 2019–2022 capital cycle.

Based on the most recent Capital reporting statements, Administration forecasts that approximately 20 to 25 per cent of the 2015–2018 Capital Budget will be carried forward into the 2019–2022 budget cycle. The effect of these funds, along with the allocations already committed to large transformative projects such as Valley Line Southeast LRT and Yellowhead Trail Freeway Conversion, is that the anticipated spending during the 2019–2022 Capital Budget period will be comparable to that of the previous budget cycles.

Throughout any capital cycle, carryforwards are a normal consequence of a multi-year budget. Projects often span multiple years, due to their size, scale or other factors. Carryforwards from one capital cycle to another may also be an indicator that project cash flows are not reconciled against project progress, were established in the early development phases of a project, or otherwise vary between budget and projected expenditures (favourable pricing, etc.). Project schedules are dependent on a variety of internal and external factors, with each project manager responsible for reporting and documenting the reasons for a deviation from schedule.

Through the implementation of the PDDM, Administration is working to improve when the scope, schedule and budget is established for projects. Over time, this will further improve the overall budget performance and the value of carryforwards should decrease.

Capital Investment in Services

The 2019–2022 Capital Budget of \$4.3 billion, not including any potential new projects financed with debt, is distributed among Service Areas as shown in Table 7. This table includes the \$1.9 billion of projects approved in previous budget cycles. It also identifies an additional \$0.9 billion in funding approved beyond 2023 to complete projects that extend past the 2019–2022 period.

The following table summarizes the service areas used for the 2019–2022 Capital Budget

Capital Budget Service Areas

Recreation, Parks Culture & Attractions

Recreation & Sport Facilities
Park Land & Amenities
Natural Areas
Cultural Facilities
Libraries
Social Facilities

Housing

Affordable Housing
Permanent Supportive Housing
Social Housing
Land Acquisition & Site Preparation
Developer-sponsored Affordable Housing

Public Transit

Transit Buses
DATS
LRT
Transit Facilities

Neighbourhoods

Neighbourhood revitalization
Streetscape improvements

Roads

Roads, bridges & structures
Sidewalks, cycling lanes & alleys
Street signage and traffic amenities

Economic Development

Land Development
Community Revitalization Levies
Blatchford redevelopment
The Quarters

Public Safety

Police
Fire & Rescue

Corporate Support

Administrative Facilities
Service yards, vehicles and equipment
Information Technology

Table 7: 2019–2022 Proposed Capital Investments by Service Area (\$ millions)

Service Area	2019–2022			2023 & Beyond			Overall Total
	Growth	Renewal	Total	Growth	Renewal	Total	
Recreation, Parks Culture & Attractions							
Recreation	112.3	42.5	154.8	-	-	-	154.8
Edmonton Public Library	2.5	48	50.5	-	-	-	50.5
Parks	236.6	144.2	380.8	-	-	-	380.8
Culture and Attractions	3.2	139.6	142.8	-	-	-	142.8
Total	354.6	374.3	728.9	-	-	-	728.9
Public Transit							
LRT	872	24.8	896.8	-	-	-	896.8
Transit	22.9	226	248.9	-	-	-	248.9
Total	894.9	250.8	1,145.7	-	-	-	1,145.7
Roads							
Active Transportation	8.3	-	8.3	-	-	-	8.3
Arterial	425.4	157.7	583.1	518.6	-	518.6	1,101.7
Bridges, Interchanges & Auxiliary Structures	-	109.7	109.7	-	-	-	109.7
Complete Streets	36.8	-	36.8	-	-	-	36.8
Traffic Safety	12.4	11.5	23.9	-	-	-	23.9
Total	482.9	278.9	761.8	518.6	-	518.6	1,280.4
Public Safety							
Edmonton Police Service	9.3	101.1	110.4	-	-	-	110.4
Fire Rescue Services	78.6	14.4	93	-	-	-	93
Total	87.9	115.5	203.4	-	-	-	203.4

Table 7: 2019–2022 Proposed Capital Investments by Service Area (\$ millions) (Cont'd)

Service Area	2019–2022			2023 & Beyond			Overall Total
	Growth	Renewal	Total	Growth	Renewal	Total	
Housing							
Affordable Housing	27.8	-	27.8	26.3	-	26.3	54.1
Total	27.8	-	27.8	26.3	-	26.3	54.1
Neighbourhoods							
Neighbourhood Development	149.2	-	149.2	2	-	2	151.2
Neighbourhood Renewal	-	687.9	687.9	-	-	-	687.9
Total	149.2	687.9	837.1	2	-	2	839.1
Economic Development							
Blatchford Redevelopment	115.2	-	115.2	303.9	-	303.9	419.1
EEDC	5.1	15	20.1	-	-	-	20.1
Land Development	78.3	-	78.3	-	-	-	78.3
Community Revitalization Levies	93.9	-	93.9	-	-	-	93.9
Total	292.5	15	307.5	303.9	-	303.9	611.4
Corporate Support							
Fleet	5.3	94	99.3	-	-	-	99.3
Information Technology	37.6	34.3	71.9	-	-	-	71.9
Yards & Facilities	20.9	100.3	121.2	-	-	-	121.2
Total	63.8	228.6	292.4	-	-	-	292.4
Grand Total	2,353.6	1,951.0	4,304.6	850.8	-	850.8	5,155.4

Service Area 1: Recreation, Parks, Culture and Attractions

Overview

Recreation, Parks, Culture and Attractions encompasses a wide range of facilities and spaces that compose much of what makes Edmonton a rich and vibrant city. The City makes opportunities available for recreation and fitness, cultural and community connection and learning and entertainment through its investments in Recreation, Cultural and Community Centres and the Edmonton Public Library. Edmonton's renowned river valley and ravine system forms the largest urban park in Canada and provides a connective network of trails, corridors and pathways used for recreation and commuter access throughout the city. Investments made in this portfolio ensure that Edmonton remains an attractive city with the potential to positively impact the health of residents and the economic, social, and cultural capacity of the city.

Quick Facts

- 18 recreation and leisure centres
- 20 ice arenas
- 3 golf courses
- 9 cultural centres
- 4 museums
- 455 playgrounds
- 6,128 hectares of parkland
- 20 libraries

Looking Back

Over the past budget cycle, the City made significant investments in libraries, parks, and recreational and cultural infrastructure. Funding for design was directed toward developing new recreation centres at Lewis Farms and Coronation, as well as renewing leisure centres and arenas in Castle Downs and Jasper Place. The City's acquisition of MacEwan University West Campus (The Orange Hub), as well as initial designs for the Winspear Centre expansion, also represent investments that will strengthen community learning, enjoyment and sustainability. Additionally, the Shared Park Development Program saw the City developing productive partnerships with industry that resulted in building a number of new parks, including, the Rosenthal School Park, Griesbach Central Park, Charlesworth Sustainability Plaza and the Orchards School Park.

Edmonton Public Library made significant investments in opening new library branches in Mill Woods, Calder and Capilano and commenced the renewal and upgrade of the Stanley A. Milner Library.

2019–2022 Budget Overview

Recreation and Culture

Edmonton's recreational and cultural facilities are key components of Edmonton's high quality of life. The 2019–2022 Capital Budget supports Council's vision for Edmonton to be a Healthy City by providing ample support for social connection opportunities and places that provide equal opportunity to learn, create, be and work. The City has made substantial investments in these areas over the past ten years; however, Administration expects the investments over the next four year budget period to be comparatively modest due to limited funding. To that end, resources will be focused on ensuring that Edmonton's existing facilities are in a state of good repair and provide good value to residents.

Through previous Council approvals, design work has commenced on the Lewis Farms Community Recreation Centre and Public Library (Lewis Farms). For Council's consideration, this budget proposes Lewis Farms be financed through debt if it were to be approved. This project and the potential implications are highlighted in more detail in the previous section on debt.

Projects recommended for new funding in this budget include:

Growth:

- Swimming Pool OHS Improvements (various): Planning, Design and Deliver
- Turf Management, Sports Field Upgrades: Planning, Design and Deliver
- Heritage Valley Recreation Centre and Library: Planning and Design
- Rollie Miles Athletic Grounds Park Redevelopment: Planning and Design
- Clarke Stadium Enhancements: Planning and Design

Renewal:

- Mill Creek Pool
- Peter Hemingway Leisure Centre: Planning, Design and Deliver
- Confederation Arena: Planning, Design and Deliver
- Callingwood Twin Arenas: Planning, Design and Deliver
- Muttart Conservatory: Planning, Design and Phased Delivery
- Sports Field Renewal: various sites
- ACT Centre: Planning, Design and Deliver
- Golf Courses: various sites
- Grand Trunk Swimming Pool: Planning, Design and Deliver
- Confederation Leisure Centre: Planning, Design and Deliver
- Eastglen Leisure Centre: Planning, Design and Deliver
- Commonwealth Stadium: Planning, Design and Phased Delivery

Other Considerations

The 2019–2022 Capital Budget balances the City's obligations to address the needs of a growing population and maintain aging infrastructure during a challenging period of uncertainty regarding funding. While the City has a number of projects that were requested to be considered in this budget, many of these are not recommended for funding in this budget, but will be considered in future budget cycles or as funding becomes available. Growth projects requested, but not recommended for funding in this budget include:

- Lewis Farms Community Recreation Centre and Library: Deliver (Considered for debt financing)
- Riverside Golf Course Pavilion and Clubhouse: Planning and Design
- Edmonton Soccer Association South Soccer Centre Expansion: Deliver (Considered for debt financing)
- Commonwealth Stadium: FIFA Requirements: Planning and Design
- Londonderry Heights Artificial Turf: Deliver
- Swimming Pool OHS Improvements (additional locations): Planning, Design and Deliver

- Terwillegar Heights Artificial Turf: Deliver
- Rundle Golf Course Driving Range Development: Planning and Design
- Rollie Miles Leisure Centre: Planning and Design
- Various Baseball Diamond Enhancements: Planning, Design and Deliver
- Bonnie Doon Twin Arena (includes single arena closures): Planning and Design
- Clarke Stadium Enhancements: Deliver
- Valley Zoo Nature's Wild Backyard Phase 2: Deliver (considered for debt financing)
- Strathcona 55 Plus Seniors Facility: Planning and Design
- Northwest Seniors Centre: Planning and Design

Parks

Edmonton's green network strategy, *Breathe*, is designed to support a more diverse and complex approach to growth in parks and open spaces. As an extension of the City's new Open Space Policy, *Breathe* will support continued expansion into newly developing areas, intensification in mature and established neighbourhoods and transformation of the City's central core. The 2019–2022 Capital Budget is guided by this strategy and the City intends to continue acquiring land in the river valley and natural areas as opportunities for land acquisition present themselves. Additionally, the City will continue to develop park space in a manner that reflects the interconnected nature of Edmonton's open spaces and the way that many different urban networks coexist and overlap to form an integrated, multifunctional green network.

Some of the main projects recommended for new funding in this budget include:

Growth:

- Dogs and Open Spaces (various): Planning, Design and Deliver
- Mature Area Land Acquisition: Deliver
- River Valley Alliance Phase 2: Planning and Design

- District Park Land Acquisition (new Area Structure Plans): Deliver
- River Valley Land Acquisition: Deliver
- Cemeteries Master Plan Implementation: Planning, Design and Deliver
- School Park Site Development: Planning, Design and Deliver
- Naturalization and Urban Canopy Expansion: Planning, Design and Deliver
- Heritage Valley District Park: Planning, Design and Deliver
- District Park Land Acquisition (Facilities Master Plan repayment): Deliver
- Shared Park Development Program (various)
- Council Amenities and Benchmark Program

Renewal:

- Civic Precinct Project: Phase 2
- Beaumaris Lake Amenities Renewal: Delivery
- William Hawrelak Park Facilities Renewal: Planning, Design and Deliver
- Gallagher Park Renewal: Design
- Geotechnical and Landslide Repair Program
- Tree and Urban Tree Replacement Programs
- Hawrelak Park Renewal: Planning, Design and Deliver
- Mill Creek Bridges: Approach Erosion Control
- River Valley Trail Rehabilitation/Renewal: various sites
- MacKinnon and Ramsey Ravine Renewal: Planning, Design and Deliver
- Playground Equipment Renewal

Other Considerations

- Growth projects requested, but not recommended for funding include:
- River Valley Alliance Phase 2: Deliver
- Confederation Park Redevelopment Upgrades: Planning, Design and Deliver
- Suburban School and Park Land Acquisition: Deliver
- Valley Zoo Solar/Green Parking Lot and Stormwater Management: Planning and Design
- Ivor Dent Sports Park Phase III: Deliver
- Suburban Park Development (additional locations): Planning, Design and Deliver
- North Shore Promenade: Planning and Design
- District Activity Park Development: Planning and Design
- Queen Elizabeth Phase 3: Planning, Design and Deliver
- Terwillegar Park Concept Plan Implementation: Deliver
- Glengarry Park Redevelopment Upgrades: Planning and Design
- Naturalization and Urban Canopy Expansion (additional locations): Planning, Design and Deliver
- Touch the Water: Planning and Design
- John Fry Park Master Plan Implementation: Planning and Design
- Shared Park Development Program (additional locations): Planning, Design and Deliver
- Horse Hills District Park: Planning and Design
- Mary Burle Park: Planning and Design
- School Park Site Development (additional locations): Planning, Design and Deliver
- Queen Elizabeth School Park Redevelopment Upgrades: Planning and Design

Library

Edmonton Public Library (EPL)'s new 2019–2023 Strategic Plan provides direction and expected outcomes for future library services. This plan aligns with City Council's strategic goals and Council's Strategic Plan, particularly with respect to improving Edmonton's livability and economic success. Through capital investment, EPL will have more opportunity to reach new and growing communities and revitalize branches that have served the community for a number of years. Using demographics analysis from EnviroNics Analytics' Envision software and other demographic data, current and projected usage and the EPL Board's Library Service Point Development Policy, EPL has identified areas of growth and/or renewal. EPL uses this analysis to establish capital priorities, namely identifying where new branches may be needed and determining whether existing branches should be expanded or relocated.

This budget includes the completion of projects that were approved in previous budget cycles, including the Stanley A. Milner Library renewal, anticipated for completion in 2020.

Projects recommended for new funding in this budget include:

Growth:

- Library IT Infrastructure Growth
- Heritage Valley Recreation Centre and Library

Renewal:

- Library Asset Renewal (furniture and equipment, library materials, IT infrastructure)

Other Considerations

EPL estimates that approximately \$25.8 million in funding will be required for investment in future infrastructure for new library branch growth, renewal and rehabilitation of existing infrastructure, in addition to the investments proposed in this budget. The Edmonton Public Library's 2019–2023 Strategic Plan includes the development of four new library branches in growing areas of the City and the replacement or renewal of four library branches in existing communities, over the next ten years. The EPL Board continues to look to City Council, partners and other levels of government to support its infrastructure needs, ensuring that it is in a position to deliver valued services to Edmontonians.

Projects requested, but not recommended for funding in this budget include:

- Lewis Farms Community Recreation Centre and Public Library: Construction (potentially financed with debt)
- Riverbend Library Relocation: Planning Design and Land
- Woodcroft Library Expansion: Planning and Design

Service Area 2: Public Transit

Overview

With Edmonton's population and economy growing, transit service has never been more important to the city's wellbeing. Without efficient operations and adequate capacity, many residents, workers and visitors would be unable to access the schools, jobs, community events and attractions that make Edmonton a great city. The City strives to provide customer-focused, safe, reliable and affordable public transportation services that link people, jobs and communities on buses, Light Rail Transit (LRT) and DATS (paratransit). A great public transit system can help build an efficient transportation system and more compact and lively neighbourhoods. Well-supported public transit can also reduce the City's environmental footprint, link workers with jobs and customers with businesses, improve public health and encourage all residents to fully engage in urban life.

Quick Facts

- 932 buses
- 94 trains
- 18 LRT stations
- 6 transit garages
- 86,997,466 transit ridership (2017)
- 6,534 bus stops
- 27.7km LRT track
- 27 transit centres

Looking Back

The City continues to enhance the availability of public transit and promote a shift in the way people move around Edmonton. Over the past budget cycle, The Edmonton Transit System (ETS) realized significant investment in the LRT with the completion of the Metro Line to NAIT and the start of construction on the Valley Line Southeast, from Downtown to Millwoods.

The entire ETS bus fleet was modernized to include Smart Bus technology that features a real-time passenger information system, computer-aided dispatch and on-board mobile data terminals. These enhancements are a precursor to implementing Smart Fare technology and these investments in smart technology will provide greater passenger connectivity and convenience, as well as improve operational efficiency.

Major renewal projects included the complete refurbishment of the West Edmonton Mall Transit Centre and renewal of the Capital Line LRT, including replacement of sections of track north of Churchill station and upgrades to the traction power and signalling systems. In addition, the escalators were replaced at Bay and Corona LRT stations.

In July 2017, Council approved the Transit Strategy, which reflects the priorities of Edmontonians and will modernize Edmonton's transit system. It identifies a long term vision for Transit and will guide development and investment in the transit system, which is a foundational element to building a great city.

2019–2022 Budget Overview

Guided by the Transit Strategy, the City will work to build a transit system that will focus on service that is safe, fast, convenient and reliable. Consistent with Council's priority of expanding the LRT network, over the next four years, the City anticipates the completion of the Valley Line Southeast, beginning construction of the Valley Line West and the Metro Line extension through Blatchford and continued planning and design for other future LRT expansion projects. It is important to note that this budget does not include any new funding requests for LRT construction beyond what has already been approved by Council. Only funds for ongoing planning and design are included. Requests for construction funding (including Valley Line West and the Metro Line expansion through Blatchford) will be presented to Council during future SCBAs, as the design of each stage progresses and funding commitments from other orders of government are coordinated.

Annual ridership has increased from almost 68 million in 2009 to just over 87 million in 2016. The current transit system is nearing capacity and, even with modest projections for population growth, needs to expand to keep up with service delivery demands.

The City will continue with its implementation of Smart Fare, previously approved by Council and projected to be completed by 2020. Through Smart Fare, the City will be able to explore the potential for new fare structure opportunities made possible by this initiative, potentially providing an opportunity for a regional transit fare integration plan with neighbouring municipalities in the Edmonton Metropolitan Region.

Projects recommended for new funding in this budget include:

Growth:

- Transit Smart Fare System (Smart Card): Deliver
- Transit Safety and Security

Renewal:

- Bus Renewal
- Power and Emergency Systems Renewal
- Capital Line Wood Tie Replacements
- Bus Stop Renewal
- LRT Catenary and Substation Renewal

Other Considerations

In order to meet the growing demands on the system and to facilitate the transition to alternative energy technology, ETS will require more funding than is available in this budget. Potential projects such as expansion of electric bus vehicles and a new transit garage are foreseen in future years, but are not included in this budget due to funding constraints. Without support from other levels of government in a consistent, predictable and reliable manner, the City will have difficulty in meeting these challenges on its own.

Projects requested, but not recommended for funding in this budget include:

- Ferrier Garage Bus Storage Replacement: Planning and Design
- Stadium LRT Station Upgrade: Deliver (Considered for debt financing)
- New Transit Bus Garage (Location TBD): Planning and Design
- Integrated Traffic/Transit Control Centre: Planning and Design
- Churchill LRT Station Upgrade: Planning and Design
- Windemere North (Ambleside) Transit Centre and Park and Ride Concept: Planning and Design
- Paterson Garage Expansion for 60ft Buses: Planning and Design
- Ellerslie Road Transit Centre and Park and Ride: Planning and Design
- Transit Priority Improvements Heritage Valley to Century Park: Planning and Design
- Touch Screen Information System (Valley Line)
- Electronic Fareboxes
- Train-to-Wayside Communications and Integration
- Growth Auxiliary Vehicles
- Operational & Safety Activity Database
- LRT Pedestrian Crossing Upgrades

Service Area 3: Roads

Overview

To support our residents, workers and visitors, the City must plan, operate and maintain a vast system of transportation infrastructure that includes sidewalks, cycling routes, residential streets, arterial roadways, connectors and freeway systems. In recognizing that a transportation system composes a significant part of a city's public space and how its residents choose to move, the City must ensure that urban form, area planning and programming create an inviting and functional environment for Edmontonians. The City's environmental, financial and social sustainability will be largely determined by Edmonton's investments in moving people, goods and services, which will shape the City's urban form and impact economic well-being.

Quick Facts

- Over 10,000km of roadways, sidewalks, bicycle lanes and alleys
- 163 bridge structures
- Over 150,000 traffic signs and 113,000 street lights
- Over 5,700 parking stalls
- Approximately 1,100 pedestrian and full traffic signals

Looking Back

Over the past budget cycle, multiple arterial roadway and active modes projects have added capacity to existing roadways and key goods movement corridors. An increased commitment to traffic safety has resulted in the implementation of Vision Zero, which includes equipment investments into speed signs, new pedestrian signals and crosswalks, signal upgrades, school zone safety and neighbourhood safety. The City continues to move towards a complete transportation infrastructure network, supported by the recent implementation of active modes infrastructure such as the downtown bike network and several major bike routes in central Edmonton. Improvements have also been made to walking infrastructure, ranging from installation of curb ramps to construction of missing sidewalk links to bus stop sidewalk connection.

From 2015 to 2018, the City made significant investments in parking control technology and established the City's E-Park system. To accommodate all residents within Edmonton's roadway networks, the City has also made investments in converting Edmonton's traffic controller system and enhancing complete streets infrastructure across Edmonton. Looking forward, it is crucial that the City understands how and which major changes are likely to impact operations over the next decade and how program and service reviews and changing technologies will potentially impact the City's capital needs.

2019–2022 Budget Overview

Investing in transportation infrastructure over the next four years will enhance the City's urban places, regional prosperity and climate resilience. This will also improve Edmonton's livability, as transportation assets ensure that all residents can easily move and connect to the city in which they live, work and play.

In particular, investments will look at addressing the following:

- Mitigating and managing traffic congestion.
- Ensuring the timely and efficient movement of goods.
- Supporting mode shift in Edmonton.
- Expanding active modes infrastructure.
- Improving accessibility, walkability, and placemaking.
- Enhancing road safety for all users.
- Ensuring roads, bridges, and auxiliary structures are adequately maintained.
- Leveraging renewal opportunities to deliver improvements to infrastructure beyond "like-for-like" replacement.

Together, these investments in the City's transportation infrastructure contribute to meeting Council's goals while providing transportation options for Edmontonians. These investments support the continued economic growth of the City by supporting the movement of goods and services and servicing developing areas of the City, while also enhancing mobility options beyond the use of automobiles for Edmontonians.

New funding requests in this budget include:

Administration has identified projects totaling \$762 million in road related projects from 2019–22. Major projects include the following:

Growth:

- Minimum Bike Grid (Phase 2 Strathcona and Garneau): Planning, Design and Deliver
- Traffic Signals Developer and ARA Funded: Deliver
- Active Transportation (various): Planning, Design and Deliver
- 105 Avenue (Columbia Avenue) Stage 2 (109 to 116 Street): Deliver
- Whitemud Drive (207–231 Street) Upgrading/Widening: Planning and Design
- Imagine Jasper Avenue Base Streetscape Stage 1 (109 to 116 Street): Deliver
- Arterial Roadway Operational Improvements: Planning and Design

Renewal:

- 101 Street: 111 Ave. to 118 Ave.: Planning, Design and Deliver
- Kingsway: 109 St to 118 Ave.: Planning, Design and Deliver
- 82 Avenue: 83 St. to Mill Creek Bridge: Planning, Design and Deliver
- 178 Street: 87 Ave. to Stony Plain Rd.: Planning, Design and Deliver
- Whitemud Drive Ramps: Whitemud Dr. to 91 St.: Planning, Design and Deliver
- Wayne Gretzky Drive [NBD]: Capilano Bridge –to N/112 St. [On Ramp]: Planning, Design and Deliver
- Jasper Avenue: 109 St. to 114 St: Planning, Design and Deliver.
- 51 Avenue: 86 St. to 111 St.: Planning, Design and Deliver
- 107 Avenue: 142 St. to 149 St.: Planning, Design and Deliver
- 124 Street: 111 Ave. to 118 Ave.: Planning, Design and Deliver
- 106 Avenue: 101 St. to 109 St.: Planning, Design and Deliver
- 127 Avenue: 82 St. to 97 St.: Planning, Design and Deliver
- 112 Avenue: 68 St. to W/75 St.: Planning, Design and Deliver

- 99 Street: 34 Ave. to Whitemud Dr.: Planning, Design and Deliver
- 163 Street: 87 Ave. to 95 Ave.: Planning, Design and Deliver
- Whitemud Drive (eastbound), Rainbow Bridge to 75 St.: Planning, Design and Deliver
- McDougall Hill, MacDonald Dr. to Rosedale Rd.: Planning, Design and Deliver
- 184 Street: 107 Ave. to 114 Ave.: Planning, Design and Deliver
- 118 Avenue: 142 St. to 149 St.: Planning, Design and Deliver

Other Considerations:

The following projects have been considered as part of this budget but, due to the limited funding available, Administration recommends deferring these projects until future budget cycles or as new funding becomes available:

- Active Transportation (additional locations): Planning, Design and Deliver
- Imagine Jasper Avenue Base Streetscape Future Phases: Deliver
- 112 Street /167 Avenue 4 Lane Widening: Planning and Design
- Saskatchewan Drive Bike Network Improvements (99 Street to 104 Street): Deliver
- 101 Avenue (76 Street to 50 Street) Streetscape: Planning, Design and Deliver
- 184 Street (107 Avenue to Yellowhead Trail) 4 Lane Widening: Planning, Design and Deliver
- Saskatchewan Drive Bike Network Improvements (104 Street to 109 Street): Deliver
- 105 Avenue (Columbia Avenue) Future Phases: Deliver
- 17 Street (76 Avenue to Sherwood Park Freeway) 4 Lane Urbanization: Planning and Design
- Terwilligar Drive Expressway Upgrades (Stage I): Deliver (considered for debt financing)
- Complete Streets (various): Planning, Design and Deliver
- Whitemud Drive (207–215 Street) 4 Lane Widening: Deliver

- North East Arterial 4 Lane Widening: Planning, Design and Deliver
- 124 Street (111 Avenue to 118 Avenue) Streetscape: Planning and Design
- 118 Avenue / 101 Street Traffic Circle Reconstruction: Deliver
- 107 Avenue Improvements: Planning and Design
- Traffic Safety Engineering Measures: Deliver
- 23 Avenue Urbanization South Boulevard and Sidewalk (Rabbit Hill to Terwillegar): Planning, Design and Deliver
- Whitemud Drive (215–231 Street) 4 Lane Widening: Deliver
- 66 Street SW (Ellerslie Road to 23 Avenue) 4 Lane Widening: Planning and Design
- Traffic Safety Speed Management Equipment: Deliver
- 23 Avenue Urbanization South Side Sidewalk and C and G (Rabbit Hill to Terwillegar): Planning, Design and Deliver
- Ellerslie Road (115 Street to 127 Street) 4 Lane Widening: Planning and Design
- Traffic Signals Pedestrian/Vehicle Safety: Deliver
- Parsons Road (19 Avenue to Ellerslie Road) 4 Lane Widening: Planning and Design
- Community Traffic Safety Countermeasures: Deliver
- 50 Street / Sherwood Park Freeway: Planning, Design and Deliver
- 215 Street (Webber Greens Drive to Stony Plain Road) 4 Lane Widening: Planning and Design
- Parks and Roads Fleet Optimization: Deliver
- 135 Street / SW Anthony Henday Drive Interchange: Planning and Design
- 215 Street (Whitemud Drive to Webber Greens Drive) 4 Lane Widening: Planning and Design
- 50 Street (76 Avenue to Sherwood Park Freeway) 6 Lane Widening: Planning, Design and Deliver
- 50 Street (153–167 Avenue) 4 Lane Widening: Deliver
- 66 Street (158 Avenue to 167 Avenue) 4 Lane Widening: Deliver
- CP Rail Shared Use Path in Strathcona and Garneau: Planning, Design and Deliver
- 34 Street (76 Avenue to Sherwood Park Freeway) 4 Lane Urbanization: Planning and Design
- 142 Street Traffic Circle Replacement: Deliver
- 167 Avenue (76–52A Street) 4 Lane Widening: Deliver

Service Area 4: Public Safety

Overview

The Public Safety service area addresses the capital needs of the Edmonton Police Service (EPS) and Fire Rescue Services (FRS), who work to keep Edmontonians safe and secure in their daily lives and in response to emergency situations. EPS is dedicated to ensuring public safety and advancing policing as a profession and will continue to work towards its vision of Edmonton as the safest major city in Canada and EPS as a recognized leader in policing. Under the oversight of the Edmonton Police Commission, EPS's mission is to increase public safety through excellence in the prevention, intervention and suppression of crime and disorder.

By protecting life, property and the environment, FRS improves the livability of all Edmontonians. In providing internationally-recognized frontline fire rescue services, fire prevention programs and public education, FRS actively works to make the city a safer and healthier place. To this end, ensuring that personnel are properly trained and equipment, facilities and communication infrastructure are up to date is critical to ensuring that FRS is capable of responding to all emergencies.

Quick Facts

- 409 marked police vehicles
- 394 unmarked and specialty police vehicles
- 2 police helicopters
- 6 police divisional stations
- 29 active fire stations
- 51 staffed major apparatuses
- 37 in-service specialty and support vehicles for FRS

Looking Back

In the past four years, the EPS has advanced key elements of its Capital Plan, including construction of the NorthWest Campus facility (expected to open in 2019) and replacing the Air 1 helicopter. EPS also began implementing a new Digital Asset Management System and protocol to organize unstructured data into a consistent and easily searchable format.

Key accomplishments for FRS include opening new fire stations at Lewis Farms (#29) and Pilot Sound (#30). The number of intersections that has been equipped with the traffic preemption system to improve safety and response times has also increased significantly. Additionally, the FRS training facility has been converted to propane, which has improved firefighter safety and decreased negative environmental impact.

The EPS and FRS, in conjunction with all City users of the existing Public Safety and Security Radio System, continue to move to the Alberta First Responders Radio Communication System (AFRRCS). Migration to the new system is expected to be completed in early 2019.

Work has also continued on the Co-Located Dispatch and Emergency Operations Centre, which will house bylaw, police and fire communications functions and the Emergency Operations Centre and anticipated to be operational in 2021.

2019–2022 Budget Overview

Renewal and major rehabilitation of existing assets will continue to be a focus for both EPS and FRS over the next four-year period, as well as responding to the needs of a growing city.

Edmonton Police Services

EPS bases its four year budget on various sources of information, including existing inventory information, renewal cycles, the EPS twenty-year Strategic Facilities Plan, crime trends and recognition of technology that can assist the EPS in achieving its goals and priorities. This begins with a new Firearms Training Facility that will allow for the increased capacity required to ensure expanded and consistent firearms training across all sworn members as recommended by Provincial Standards. Given the limited amount of unconstrained funding available in this budget, and preliminary project estimates, the Firearms Training Facility is one of several profiles for Council to consider for debt financing. The impacts of borrowing for this facility are outlined in Table 5 above. This budget also includes IT enhancements that increase access to intelligence and provide better connectivity and resource deployment for emergency response.

Projects requested by EPS for new funding that are recommended in this budget include:

Growth:

- Police IT: Applications Enhancement

Renewal:

- Police Asset Renewal
- Police Station Downtown Division: Planning, Design and Deliver
- Police Station North Division: Planning, Design and Deliver

Other Considerations

EPS has requested a number of initiatives for this budget cycle that Administration has not put forth as recommended for funding. Projects that are considered to be important, but not recommended until further funding becomes available, include:

- EPS Firearms Training Facilities (to be considered for debt financing)
- Operations and Intelligence Command Centre: Planning and Design
- Potential Relocation of Canine Facility: Planning and Design
- Potential Relocation of Police Seized Vehicle Lot: Planning and Design

While no request is made for funding in this budget, EPS anticipates the opening of a seventh divisional station in order to maintain service levels and to accommodate future growth.

Fire Rescue Services

FRS has identified the potential need for two new stations in the northwest and southeast of the city, based on the continued development of those areas. This budget proposes that design on the Charlesworth station begin in the latter stages of the budget, with a profile for construction brought to Council once design reaches checkpoint three.

FRS has also projected growth in its fleet to manage capacity and the ability to meet service targets.

New funding requests for FRS in this budget include:

Recommended

Growth:

- Fire Fleet Growth: Deliver
- Charlesworth Fire Station: Planning, Design and Land
- Fire Station Gear Rooms 2019–2022: Planning, Design and Deliver

Renewal:

- Emergency Response Centre Station No 42: Planning, Design and Deliver
- Fire Station No 3 (University): Planning, Design and Deliver
- Fire Services Equipment
- Fire Station No 7 (Highlands): Planning, Design and Deliver
- Fire Station No 19 (Callingwood): Planning, Design and Deliver
- Fire Station No 22 (Oliver): Planning, Design and Deliver

Other Considerations

FRS has identified a number of initiatives that, due in part to limited funding, are not included in this budget. While these initiatives are considered to be important, Administration believes that, in some cases, a phased approach integrating projects with renewal work may provide better value. Projects considered in this budget, but deferred to future budget cycles, are as follows:

- Charlesworth Fire Station: Deliver
- Cumberland Fire Station Planning and Design
- Fire Station Land

Service Area 5: Housing

Overview

Statistics Canada reports that almost 50,000 Edmonton households face difficulty finding housing they can afford. Housing costs in Edmonton have increased significantly since the early 2000s and are expected to continue to climb as the city grows. Ensuring a supply of affordable housing in the near and long term is critical to the well-being of Edmontonians and the health and prosperity of the city as a whole. Furthermore, a sufficient supply of affordable housing helps to support a healthy labour market; it is also crucial for enabling low-income households to move out of poverty. A broad range of housing choices provided in all areas of the city contributes to communities that are welcoming for all Edmontonians.

In 2015, City Council approved the *City of Edmonton's Affordable Housing Strategy (2016–2025)*, affirming the City of Edmonton's commitment to ensuring all Edmontonians have access to affordable housing. Since then City Council also approved the End Poverty Edmonton Strategy and endorsed *A Place to Call Home: Edmonton's Updated Plan to Prevent and End Homelessness*, which identify increasing the supply of affordable housing as a critical to achieving each plans' goals.

In 2017, the Federal and Provincial governments both released affordable housing strategies and corresponding commitments to increasing funding available for affordable housing. The City remains committed to working proactively with both other orders of government and its partners in the non-profit sector and private industry to increase the supply of affordable housing. The City's primary role is that of a limited funding partner and convener, where City land and capital contributions are intended to leverage funding from other orders of government, and the City plays a leadership role in bringing partners together to address local needs.

The City of Edmonton will use its resources available for affordable housing to help attract additional provincial and federal government investment in affordable housing to Edmonton and to ensure Council priorities, including increasing the supply of permanent supportive housing and ensuring the geographic distribution of affordable housing, are addressed.

Quick Facts

- In 2016, more than 48,000 renter households in Edmonton experienced housing affordability problems. Of these households, 22,350 spent more than 50 per cent of income on housing, meaning they experienced severe housing affordability issues.
- The City owns over 1,000 units of affordable housing, much of which requires renewal or regeneration;
- In 2017, Edmonton's Updated Plan to Prevent and End Homelessness identified the need to construct over 900 units of permanent supportive housing.

Looking Back

The City of Edmonton has a long history of involvement in the provision of affordable housing in Edmonton. Since the 1970s, the City has lead efforts in this area through various roles including acting as affordable housing developer, owner, funder, and systems planner. The City has also worked to ensure the safety and adequacy of market housing for low income Edmontonians through its role as a regulator and convener. Its roles and strategic focus have evolved over time to provide leadership where required to fill gaps and align with its partners, including the provincial and federal governments, industry and Homeward Trust Edmonton.

In 2006, the City of Edmonton launched its Cornerstones program. Since then, the City has partnered with other levels of government to fund the delivery of more than 3,500 units of affordable housing. In 2012, the City of Edmonton also launched its Seniors' Housing and Building Housing Choices programs, which provide land (surplus school building sites) and limited grant funding for affordable housing development. In 2015, City Council approved the City of Edmonton's Affordable Housing Strategy and established four goals to guide the City's actions:

1. Increase the supply of affordable housing in all areas of the city.
2. Maintain the supply of affordable and market rental housing.
3. Enable stable residential tenancies and transition people out of homelessness.
4. Anticipate, recognize and coordinate action to respond to housing and homeless needs.

2019–2022 Budget Overview

Guided by the Affordable Housing Strategy, the City is taking a strong leadership role to increase the supply of affordable housing across Edmonton. To this end, the City will use a full tool box composed of funding, land, regulations, partnerships and policies to meet a wide range of affordable housing needs in all areas of the city.

Our approach

As a limited funding partner, the City of Edmonton must work in close partnership with non-profit affordable housing developers and the provincial and federal governments. Achieving Council's goals for affordable housing depends on the availability of funding from other orders of government. While in the past the Government of Alberta has transferred block funding directly to the City of Edmonton, in recent years both the Government of Alberta and the Canadian Housing and Mortgage Corporation have demonstrated a preference for directly funding investment-ready projects. Given this context, the City of Edmonton can play a critical role in supporting the ability of the affordable housing sector to create affordable housing developments capable of attracting more funding from other orders of Government. Direct investment by the City of Edmonton will also ensure that local priorities, including the development of affordable housing in all parts of the city and the creation of new permanent supportive housing units, can be met.

This budget proposes \$54 million of City funding to be committed to projects over the next four years, with a portion of actual expenditures carrying over into the next capital budget cycle. Approximately \$28 million of that will be spent in this budget period. These initiatives include:

Land Acquisition: acquisition of parcels of land to support the creation of new affordable housing developments.

Purchase Existing Buildings: acquisition of units in existing apartment buildings to achieve Council's affordable housing objectives, including increasing the supply of permanent supportive housing. This program would enable accelerated and cost-effective development of affordable housing throughout the city.

Social Housing Development: Redevelopment of social housing sites. The City owns 12 social housing developments. Many of these developments are approaching the end of their lifespans, and have strong potential for redevelopment and expansion.

Inclusionary Housing: Acquisition of units through the City's Developer Sponsored Affordable Housing Program. Through this program, the city purchases units in residential developments at 85 percent of market cost and rents the units to low-income households at affordable rates.

Site Preparation: Costs associated with the preparation of City-owned land for affordable development. The City's updated Affordable Housing Investment Plan describes how the City of Edmonton can leverage the resources requested to support the creation of 2,500 new units of affordable housing. This Plan is based on a model that leverages an overall contribution of \$132 million by the City of Edmonton to attract over \$377 million in partner contributions, including funding from other orders of government and affordable housing provider equity.

Service Area 6: Neighbourhoods

Overview

The Neighbourhoods service area encapsulates much of the planning and development that make Edmonton a place that continues to grow and be an attractive place to live. Great neighbourhoods contribute to the city's vibrancy and prosperity. They provide an exceptional quality of life for residents, offering diverse housing and local amenities, good access to transportation options and a strong sense of place and belonging. Providing livable, sustainable, innovative and integrated neighbourhoods in both new and mature areas will ensure that our city is well positioned to attract new residents and new talent and sustain economic growth and competitiveness over time.

Quick Facts

- Over 300 neighbourhoods in Edmonton
- Capital project enhancements in approximately 18 neighbourhoods per year
- Approximately \$1.3 billion invested in neighbourhood renewal and enhancements from 2009–2018

Looking Back

In the last budget cycle, capital investments continued as part of the 10-year (2009–2018) Great Neighbourhoods Initiative. In addition, \$150 million in funding was approved for the revitalization of neighbourhoods – improvements aligned with drainage and transportation-related neighbourhood renewal work and public realm improvements around neighbourhood level commercial areas.

Between 2015 and 2018, investments in revitalization projects were made in four Council-approved neighbourhood areas with high social vulnerability and ageing infrastructure: McCauley, Central McDougall/Queen Mary Park, 118 Avenue (Avenue Initiative), and Stony Plain Road Streetscape (Jasper Place). Other projects include:

- Partial funding for MacEwan West Campus acquisition
- Central Station streetscape enhancements
- Capital Boulevard streetscape improvements

In addition to neighbourhood renewal, vibrant and complete neighbourhoods have been developed in Oxford and Schonsee, and work began in Laurel, Goodridge Corners and Rampart.

2019–2022 Budget Overview

To ensure the quality of life of Edmontonians, the City must maintain and grow great neighbourhoods—the building blocks of a great city. Assets in neighbourhoods go beyond optimizing lifecycle to maximize returns in economic growth, social uplift, and community pride.

From 2009 to 2018, approximately \$1.3 billion was invested in neighbourhood renewal and other enhancements. Administration will look to further build on these investments by integrating other capital investments in communities based on the schedule for the Neighbourhood Renewal program and the Alley Renewal program.

Investments in neighbourhoods will focus on the following areas:

- Renewing existing neighbourhood infrastructure including roads, alleys, sidewalks, signals, lighting, signs, boulevard trees and parks.
- Improving the safety of communities.
- Creating multiple modes of movement.
- Activating communities and economic development through public realm enhancements.

Administration has identified projects totalling \$816 million in neighbourhood related projects from 2019–2022. Major projects include the following:

- Residential/Mixed-Use Land Development
- Corner Stores: public realm improvements at 12 locations
- Neighbourhood Revitalizations (various): Design and Deliver
- Community Hubs
- Neighbourhood Park Development Program (various): Design and Deliver
- Neighbourhood Revitalizations (Industrial Roads)
- Residential/Mixed-Use Land Development and Acquisition
- River Crossing/West Rosedale Redevelopment: land only

Other Considerations

Projects considered for this budget, but not recommended for funding include:

- River Crossing/West Rosedale Redevelopment: Deliver
- Industrial Roads: Planning and Design
- Strathearn Heights Transit Oriented Development: Planning and Design
- Neighbourhood Park Development Program
- Neighbourhood Revitalizations (additional locations)

Service Area 7: Economic Development

Overview

Strong business growth is the backbone of a sustainable community. As the City raises its profile on the national and international stage, it must ensure that the infrastructure necessary to grow its economy, enhance urban vitality and allow it to compete for talent and business investment is in place. Some of the key initiatives the City focuses on to drive economic development include: revitalizing its downtown core, the Blatchford redevelopment, industrial land development and strategic land purchases. Downtown Edmonton is transforming into a vibrant, accessible, well-designed and sustainable heart of the city and the region. With higher residential and employment densities, an entertainment hub, numerous cultural, educational and governmental institutions, the downtown core has become a primary destination for Edmontonians and out of town visitors. Implementation of the catalyst projects identified in The Capital City Downtown Plan and The Quarters Downtown Urban Design Plan is achieving the intended outcomes.

Quick Facts

- 1.9 million square feet of new office space completed or under construction in Downtown since 2015
- \$4.6 billion in construction in Downtown and The Quarters since 2012 (completed or underway)
- 749 new residential units have been built in the Capital City Downtown CRL boundary since 2015, with more than 900 more currently under construction

Looking Back

The City has seen considerable changes in its neighbourhoods, downtown and economy. Edmonton's downtown is witnessing an unprecedented level of public and private investment, with \$5 billion in construction (underway or proposed) since 2015. City-led catalyst projects such as Rogers Place, the Armature (96 St.) streetscape improvements, and Alex Decoteau Park are contributing to this transformation. Design work is underway for the Jasper Avenue New Vision and Kinistina Park and land is being assembled for a major new park in the Downtown Warehouse District.

2019–2022 Budget Overview

The 2019–2022 Capital Budget considers the growth of the city and the strategies required to foster a strong, diverse economy and build a vibrant, connected, welcoming and safe city. One of Council's strategic goals is to create a strong downtown characterized by high density, mixed-use, transit and pedestrian orientation and supported by excellent urban design. The Downtown Community Revitalization Levy and The Quarters Downtown Community Revitalization Levy provide dedicated funding for strategic investments in Edmonton's downtown with the goal of attracting continued investment and redevelopment. Subject to the financial capacity of the Community Revitalization Levies, the Budget will invest more than \$48.9 million to create walkable and attractive streetscapes, new urban parks and open spaces and resilient infrastructure over four years. This investment will create a more attractive environment for private investment and will ultimately inspire more residents to live, work, play and learn in Edmonton's downtown core.

The city's economic growth is not limited to its downtown; the need to drive industrial and commercial development in order to secure economic resilience and diversity is apparent. The City anticipates investing \$81 million in industrial, commercial and investment (ICI) land acquisition and development near key trade corridors, over the current budget period. The City will continue to identify strategic opportunities for land purchase to meet its own municipal use.

New funding requests for Economic Development in this budget include:

Growth:

- ICI Land Development: Deliver
- Warehouse Campus Neighbourhood Central Park: Planning, Design and Deliver
- ICI Land Development Acquisition: Deliver
- Centennial Plaza Redevelopment: Planning, Design and Deliver
- Transforming Surplus City Lands: Deliver
- Jasper Avenue New Vision Phase 3 (102–106 Street): Planning, Design and Deliver
- Strategic Land Acquisition: Deliver
- Green and Walkable Downtown Phase 2: Planning, Design and Deliver

Renewal:

- Shaw Conference Centre Renewal: Planning, Design and Deliver
- Edmonton Expo Centre Renewal: Planning, Design and Deliver
- Edmonton Research Park ATC facility Renewal: Planning, Design and Deliver

Service Area 8: Corporate Support

Overview

Building a great city takes foresight, planning and the ability to run internal functions smoothly. In practice, much of the work that enables the City to operate with safe and reliable consistency happens behind the scenes. From operating yards, to fleet maintenance equipment and facilities, to security systems for information technology, the City is committed to increasing Edmonton's safety and resilience and ensuring the efficacy of municipal services. Day in, day out, this area helps the wheels of the City turn.

Fleet and Facilities

Fleet and Facility Services supports the City's vision and direction of working together to improve Edmonton's livability. This is done by maintaining City assets and providing maintenance and custodial services to transit buses and shelters, police stations, libraries, corporate vehicles, operational equipment and City-owned recreation centers and buildings. The safety, reliability, maintenance and cleanliness of these assets allow staff and residents to truly enjoy Edmonton.

Information Technology

The effective use of technology is a crucial element for the City to move forward in today's hyperconnected world. As a digital city, Edmonton is embracing change through creative and innovative ways of delivering services. Business technology is at the core of our city's transformation and investing in business technology is essential to enable this change.

The City has approved a corporate-wide Business Technology Strategy that aligns technology with the needs of the corporation and to how we interact with residents and external partners. As outlined previously, building a great city requires foresight, planning and active collaboration between residents, industry, academia and all orders of government. With dedication, hard work and leadership from across the City, the objectives of the strategy are achievable. The strategy enables an organizational shift toward a City-wide approach of managing data, information and technology to better serve residents. It also guides the prioritization of our business technology investments.

Quick Facts

- 900+ City-owned facilities
- 5000+ vehicles and equipment
- 300+ network and wireless sites
- 18,000+ supported devices
- 1,100+ servers
- 200+ km of fibre optic cable.

Looking Back

Fleet and Facilities

Over the past four years, Fleet and Facility Services has focused on improving the quality of services it provides for operational areas across the City. Delivering on its commitment to provide value through safe, reliable and affordable transit service, Fleet and Facility Services, through its Mid-Life Refurbishment Strategy, completed mechanical refurbishments on 64 transit buses, extending their life by six to eight years. Improvements to fleet maintenance shops were also made through the addition of 14 new hoists, which increased the operational capacity of mechanical services to better meet the increasing demands of a growing fleet.

Information Technology

The previous technology investment model focused on continual maintenance of current technologies with limited investment in new technologies. New technologies are essential to facilitate innovation in delivering programs and services to residents. In addition, capital investment in the renewal of technology assets was repeatedly reduced to accommodate corporate funding constraints. As a result, many technology assets have been stretched beyond their planned useful life, resulting in increased operational risks.

2019–2022 Budget Overview

Fleet and Facilities

Investment in the budget is mainly targeted for building renewal and fleet replacement. Fleet and Facility Services requires ongoing vehicle replacement while still meeting the goals of the Sustainable Fleet Management Action Plan. Other investments projected to support a growing and diversified fleet include shop equipment replacements and increased fuel storage capacity. Improvements to operating yard security measures are also considered, to better safeguard the City's assets.

Projects recommended for funding in the 2019–2022 Capital Budget include:

Growth:

- Operational Yards OHS/Security Improvements (various): Planning, Design and Deliver
- Century Place Densification: Planning and Design
- Snow Storage Sites Upgrades: Planning and Design
- Snow Plow Clearing and Equipment

Renewal:

- Fleet Renewal
- Century Place Renewal: Planning, Design and Phased Delivery
- Contaminated Sites: various sites
- Ellerslie Fleet Services Building: Planning, Design and Deliver

Projects requested, but not recommended for funding in the 2019–2022 Capital Budget include:

Growth:

- Ambleside Integrated Site: Planning, Design and Deliver (to be considered for debt financing)
- Snow Storage Sites Upgrades Future Phases: Planning and Design
- Century Place Densification: Deliver
- LED Streetlight Conversion: Planning and Design (to be considered for debt financing)
- On-Site Microgeneration Solar Photovoltaics: Planning, Design and Deliver (to be considered for debt financing)

Information Technology

Current Challenges

Expectations for cities around the world have changed. To continue to provide value to residents, the City must be a nimble organization – continuously evaluating and embracing the endless possibilities that accompany change. The following realities have a significant impact on the capital funding requested for business technology investment at the City of Edmonton.

1. Increasing Technology Demand

The adoption, use and reliance on technology across the City has increased steadily over the past 10 years. This undeniable upward trend can be easily observed in computer usage, as well as in data growth. The City's data centres currently house 2,000 terabytes of data, representing a 415 per cent increase since 2008. This is comparable to the data stored by over 62,000 smartphones. The criticality of technology is higher than it has ever been and will continue to grow as we make progress in areas such as connectivity, integration, open data and analytics.

2. Ageing Technology Assets

Network assets as well as devices need to be refreshed, renewed and/or replaced regularly in order to ensure maintenance costs are controlled and operational and security risks are managed appropriately. The City is currently faced with the reality of aging, over-extended technological assets, leading to increased operational and security risks. Continuing to stretch assets beyond the optimal replacement point may be considered to maximize the useful life of technology systems, but only when the associated risks are acceptable.

3. Cybersecurity

Data privacy and related security issues are top of mind for both public and private organizations. Increasingly interconnected digital environments require organizations to prioritize cybersecurity, including continuous assessments of risk and trust, and the use of those assessments to inform security decisions. As a result of increased cybersecurity issues, we need to invest in appropriate assets, such as servers, patches and other tools, that continue to enhance security and limit our susceptibility to threats.

4. Workforce Mobility

The City's increasing mobile workforce has resulted in a need for portable devices and supporting systems and applications with the ability to use technology anywhere and anytime. This shift is resulting in more efficient and effective program and service delivery, better decision making through access to real-time data and increased overall customer responsiveness.

5. Reduced Physical Footprint

Data storage capacity is increasing, resulting in a reduced need for physical space. Through this converging and condensing of technology, we no longer require an individual box for each application. However, this reduced physical footprint increases the complexity of linkages between the various systems and applications needed to support it.

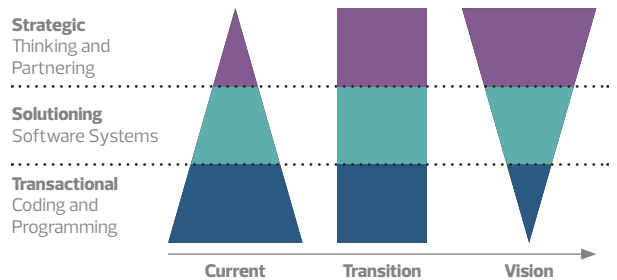
6. Decreased Capital Investment Over Time

The on-premise footprint of organizations is being reduced as they move to shared infrastructure, including using software as a service and implementing cloud strategies or other integrated systems. While the City has not yet seen a significant shift from capital to operating expenditures, it is anticipated that, over the next few years, this shift will become apparent in order to better leverage our investments, optimize processes and deliver quality service while managing costs effectively.

Moving Forward

The City of Edmonton has taken steps to establish a City-wide approach to strategically managing technology investments. This proposed investment approach represents a marked shift of focus from a low-level, transactional view of the corporate technology ecosystem, in which components are viewed in silos instead of holistically, to strategic thinking and prioritizing investments, partnerships and collaboration.

Changing Mindset and Technology Focus



We are moving away from the traditional, siloed delivery model to a model where the right initiatives are prioritized irrespective of the funding source, be it operating or capital. We envision all areas of the City acting in a coordinated fashion to bring the right resources to the right projects, whether they are established in the current plan or through other opportunities not yet identified.

This strategic outlook is enabled by the adoption of the corporate-wide Business Technology Strategy, the implementation of a new technology investment framework and the establishment of a new corporate technology governance model discussed below.

Business Technology Strategy

Moving forward, investments to applications and infrastructure will be made, giving consideration to corporate-wide technology initiatives. Following the Business Technology Strategy principles, this integrated approach will streamline our corporate technology ecosystem. In order to effectively balance achieving the Business Technology Strategy goals with the need to remain flexible and address emerging priorities and technologies, funding of specific technology investments will be continuously re-evaluated. This new strategic approach to technology investment funding ensures that maximum value is provided to the organization.

Corporate Technology Investment Framework

To continue to provide value to residents, the City must continuously evaluate the evolving landscapes and embrace the endless possibilities that accompany change. In order to advance the City, a modern technology investment framework has been developed which aligns with industry best practices and the following principles:

- Enhancing the citizen experience
- Providing reliable information
- Promoting partnerships and collaboration
- Transforming through innovation
- Thinking corporately

Governance

A robust governance structure was established, including both a steering and a working committee with representation from across the City, to increase transparency and effectiveness of decision-making. This structure applies rigorous project management practices to managing technology investment decisions and advocates for continual project review and valuation. It performs frequent investment reprioritization and follows a model of processes and gating similar to that of the Integrated Infrastructure Services Department. This allows decision-makers and governing bodies to have increased confidence that investments made support the City’s real needs and to be certain that essential project parameters are well defined.

Business Technology Governance



Overview of 2019–2022 Business Technology Capital Budget Investments

The proposed 2019–2022 capital investments work towards achieving the vision outlined in the Business Technology Strategy. Through these investments, we strive to achieve our goals, deliver superior programs and services and provide an exceptional quality of life for Edmontonians. These investments introduce much-needed functionalities and new technologies. They drive innovation and refresh our existing core infrastructure assets. They meet the demands and expectations of our residents, stakeholders, partners and employees, taking them through seamless digital experiences and allowing them to interact with the City when and how they please.

Business technology investments are categorized into the following groups:

1. **Renewal Composites:** groupings of projects required to perform usual business operations. Renewal composites are further broken down by type:
 - a. **Applications:** investments to manage and maintain the City's existing technology applications.
 - b. **Infrastructure:** investments to manage and maintain the City's physical technology infrastructure.
3. **Growth: Planning Composite:** investments in planning and business case development activities for a select group of projects, which are either mandated/legislated, or represent corporate-wide technology initiatives.
4. **Growth: Implementation Composite:** a grouping of projects which expand or transform the business and take the corporation beyond usual business operations.
5. **Growth Stand Alones:** a select few high-profile, high-risk projects.

The determination of appropriate investment allocations between these groupings took into consideration the following:

- Industry best practice for target renewal and growth allocations.
- Requests from across the City for technology projects to support business objectives.
- Alignment to the business technology strategy.
- Forecasted return on investment.
- Corporate risk including legislative requirements.

Funding of initiatives in all these groupings follows the Corporate Technology Investment Framework, which includes the development of business cases for projects. Projects are reviewed under the new governance model and assessed for overall corporate value. Ongoing reviews ensure that the rapidly changing municipal environment is considered, the best value for investments is achieved and technology investments remain in alignment with the City's evolving priorities.

TRANSFORMATIONAL PROJECTS

Yellowhead Trail Freeway Conversion

On February 21, 2017, Council approved the capital profiles and funding sources (including the Federal Building Canada Fund and Provincial matching funding) for the various portions of the Yellowhead Trail Freeway Conversion Program. The Yellowhead Trail has the highest volume of trucks within the City and services inter-city, inter-regional, and inter-provincial traffic. The City has a long history with various periodical upgrades to transition the Yellowhead Trail to a freeway. The Yellowhead Trail Strategic Plan (2011) and Goods Movement Strategy (2014) reaffirmed the need to improve the safety, operational capacity and level of service of the corridor. To achieve this vision, the Yellowhead Trail freeway will consist of six core lanes with additional service and directional lanes in congested areas. The freeway will target an operating speed of 80 km/h (where possible) and will be free-flow. In some locations, off-corridor improvements will also be completed to ensure that traffic redistributed from previous direct connections to Yellowhead Trail will be able to travel to alternative connections more easily.

Council identified this project as the City's priority for consideration under the Federal Government's Building Canada Fund National Infrastructure Component, recognizing the national significance of Yellowhead Trail as part of the Trans-Canada Highway. The project is fully funded, with a total of over \$1.0 billion being committed from all levels of government over 10 years and \$281 million included within the four years of the 2019–2022 budget.

Over the course of the next four years, planning, design and public engagement will continue. The first stages of construction will commence in the spring of 2019 and will continue through to the end of 2026. Construction work in 2019 will include road network improvements adjacent to the main corridor. Major construction on the main corridor will begin in the spring of 2020. This work includes widening of Yellowhead Trail from 50 Street to the North Saskatchewan River. Construction between 82 Street and 50 Street, and 156 Street to St. Albert Trail will follow in 2021 and 2022, respectively. In an effort to avoid construction fatigue by daily users, construction on the main corridor will be staged to minimize the number of disruption locations on the Yellowhead Trail corridor at any given time.

LRT Expansion

In 2009, City Council approved the Light Rail Transit (LRT) Long-term Network Plan that defined the future size, scale and operation of Edmonton's LRT system. It included the expansion of the Capital Line to the northeast and south, expansion of the Metro Line to St. Albert city limits and completion of the Valley Line Southeast and West. The plan also identified the need for a supplemental east/west route south of the river connecting to Sherwood Park that, once in place, would complete the network creating seamless transfer connections via LRT to all sectors of the city.

Currently, the Valley Line Southeast is fully funded (\$1.8B) and construction is underway. The 2019–2022 budget allocates \$814 million that was previously approved for this line, which is anticipated to be in service at the end of 2020. Council's next two priorities for LRT expansion are the Valley Line West and Metro Line extension through Blatchford. Preliminary design is underway for both these projects in anticipation of securing funding from other orders of government and construction procurement commencing in 2019. Through previous Council's approval, this budget allocates \$56 million for these two lines within the budget period.

Preliminary design is also underway for the Metro Line from Blatchford to Campbell Road, and the Capital Line South from Century Park to Heritage Valley. These projects are being advanced in the event they are prioritized for construction and funding becomes available. The Centre LRT, which connects to the Valley Line creating a central area circulator, is currently in the concept planning phase. This budget does not include any new funding requests for LRT expansion beyond what has already been approved by Council. Requests for funding will be presented to Council during future SCBAs, as the design of each stage progresses and funding commitments from other orders of government are coordinated.

Blatchford

Blatchford is a new kind of urban community, created through the closure of the Municipal Airport. It will be a unique neighbourhood, designed from the ground up, using advanced environmental and design knowledge. Work completed for the first stage of residential land in 2017 included installation of storm, sanitary and water servicing, as well as piping for the District Energy Sharing System (DESS). With these utilities now installed, the project team can move forward with local road construction in Stage 1 and the installation of the shallow utilities, such as gas lines, electrical lines and telephone and internet cables. Final landscaping of Stage 1 will also occur in 2018. The Blatchford Redevelopment Office is providing input to the NW LRT alignment review that is currently being led by the LRT Delivery Branch. Conceptual planning for Stage 2 West residential and the Town Centre has also been initiated. The outcome of the NW LRT alignment review will help inform the final Town Centre concept plan.

This Budget includes \$115 million of capital expenditures related to the land development in Blatchford that were approved in prior budget cycles. Expenditures related to the DESS Utility are presented as separate in the proposed 2019–2022 Blatchford Renewable Energy Utility Energy Budget.

FRAMEWORK FOR PROFILES IN THE CAPITAL BUDGET

As a result of significant changes to the administration and management of capital projects, the 2019–2022 Capital Budget looks significantly different from previous budgets. This capital budget contains fewer profiles and these profiles are aligned to stages in the the Project Development and Delivery Model (PDDM).

As outlined in the PDDM, based on existing financial thresholds (\$2M for growth and \$5M for renewal), once projects progress through the development phase and reach a point where delivery or construction would begin there is a check-in with Council, unless there is an exemption to the Capital Governance Policy C591. The future SCBA reports would be used for these check-ins and would allow Council to decide if Administration should proceed with the project. This will also be the opportunity for a stand-alone profile to be created so all specific costs for a project could be recorded.

The City has aligned itself in a way that focuses on the assets required to deliver on the array of services discussed in the previous section. Profiles in this budget align with this new formation based on asset type, and a description of these classifications is provided in Appendix E.