2025
Asset Management Plan

IT Services
City of Brantford, Ontario

Prepared by: Infrastructure Planning Asset Management, Public Works
Corporation of the City of Brantford, June 2025

RECORD SHEET

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Asset Management Document Set	Asset Group	First Issuance	Current Issuance
Strategic Asset Management Policy	All	May 2019	May 2019
Asset Management Plan Assets Overview	Core & Non-Core Assets	June 2024	June 2025
Asset Management Plan Core Assets	Environmental Services Transportation	September 2021	June 2025
Asset Management Plan, Non-Core Assets	IT Services	September 2021	This Document
Asset Management Plan, Non-Core Assets	Airport Cemetery Clerks Services Economic Development & Tourism Facilities Fire Fleet & Transit Forestry & Horticulture Golf Housing Human Resources Library Parking Parks & Recreation Police Solid Waste	June 2024	June 2025
Asset Management Plan, Non-Core Assets	JNH	TBD	TBD

ASSET MANAGEMENT PLAN
IT SERVICES

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IT SERVICES INTRODUCTION

Per O. Reg. 588/17 all municipal infrastructure assets which fall outside of the core asset categories (water, wastewater and stormwater) and their respective subcategories, shall be non-core or “other” infrastructure assets. These assets shall have qualitative descriptions and technical metrics established by the municipality.

Table 1 below outlines which Asset Types are included under each Asset Class and will be reported on in this AMP document. In addition, it is important to note that the AMP only includes assets owned by the City or Local Boards and does not include assets that are owned privately or by other organizations.

IT assets are managed by City staff from the IT Services department.

Table 1: Asset Type Breakdown

	Asset Class	
	Infrastructure Services & Support	**Corporate Information & Business Solutions**
Asset Type:	IT Infrastructure	Application Software
	IT Devices and Peripherals	

1. INFRASTRUCTURE SERVICES AND SUPPORT

1.1. INTRODUCTION

The City of Brantford owns and maintains several assets under the Infrastructure Services and Support asset class. The purpose of this section is to present specific information about the Infrastructure Services and Support asset class to answer the questions posed in **Section 2** of the **Asset Management Plan (AMP) Overview Document**, and includes the following:

- Infrastructure Services and Support Assets' Data Inventory and Condition Approach;
- Summary of Infrastructure Services and Support Assets;
- Lifecycle Activities and Cost of Infrastructure Services and Support Assets;
- Current and Proposed Infrastructure Services and Support Assets' Levels of Service;
- Current and Proposed Infrastructure Services and Support Assets' Performance; and
- Conclusion.

1.2. INFRASTRUCTURE SERVICES AND SUPPORT ASSETS' DATA INVENTORY AND CONDITION APPROACH

Information related to the City's data collection methodologies as well as data confidence level definitions are defined in the **Asset Management Plan Overview Document**.

The City of Brantford currently has one (1) approach to establishing the condition for Infrastructure Services and Support assets due to available resources, technologies, and budget restrictions:

- Estimated condition based on asset specific information.

A list of all condition assessments for all assets can be found in **Table 7** in the **Asset Management Plan Overview Document**.

The origin of the Infrastructure Services and Support asset data for inventory, replacement cost, and condition, as well as data confidence in each are provided in **Table 2** below.

Table 2: Infrastructure Services and Support Assets' Data Origin and Confidence Level

	Inventory			Replacement Cost			Condition			Levels of Service		
Asset Type	**Inventory (incl. Quantity and Age) From**	**Data Confidence Level**	**Data Confidence Description**	**Replacement Cost From**	**Data Confidence Level**	**Data Confidence Description**	**Condition From**	**Data Confidence Level**	**Data Confidence Description**	**Levels of Service From**	**Data Confidence Level**	**Data Confidence Description**
IT Infrastructure	Inventory from Snipe IT Software	Medium	Formal inventory with few unknowns	Inventory from Snipe IT Software	High	Formal inventory with few unknowns.	Determined based on age.	Medium	Informal condition assessment based on assumptions from age of assets.	2024 Internal Staff Survey	Medium	Level of Service based on moderate response rate from internal staff surveys
IT Devices and Peripherals	Inventory from within Snipe IT Software	Medium	Formal inventory with few unknowns	Inventory from Snipe IT Software	Medium	Formal inventory with few unknowns.	Determined based on age recorded in Snipe IT Software and informal internal assessment at time of repairs.	Medium	Informal condition assessment based on assumptions from age of assets and performance at the time of repairs.	2024 Internal Staff Survey	Medium	Level of Service based on moderate response rate from internal staff surveys

Per **Table 2** above, Infrastructure Services and Support assets' inventory and condition data are typically at a Medium confidence level with an overall average confidence level of Medium. Inventory and condition data related to IT Infrastructure such as the infrastructure within the server room at City Hall are generally at a High confidence level as all of these assets were recently purchased when the newly renovated City Hall opened in 2021.

IT Infrastructure assets' inventory and condition data related to IT Devices and Peripherals are typically at a Medium level. These assets are tracked through the IT Services asset management software Snipe IT. Each time an asset is purchased, updated, repaired or disposed, the information is recorded within Snipe IT. The condition and the need for replacement schedule is based on staff review and knowledge of the assets.

A Medium level has been indicated for IT Devices and Peripherals as the Snipe IT software tracking these assets has not been fully utilized by staff until recently so some assumptions have been made regarding asset condition. A large number of these assets are used by staff at home offices and in the field so the true condition of the asset is not always known. Condition has been informally assessed for most assets in this category based on a combination of staff expertise and age.

Levels of Service data is at a Low confidence as it based on the 2024 Internal Staff Survey which had a moderate response rate from City staff.

Improvements to the inventories will be ongoing as the department works to utilize their asset management software and expand their internal asset management practices.

Levels of Service data is at a High confidence as it based on the 2024 Internal Staff Survey which had a high response rate from City staff.

1.2.1 SERVICE LIFE

Formal condition assessments are not typically completed on Infrastructure Services and Support assets. Where condition assessments have not been completed, the condition has been estimated based on the estimated service life of the asset shown below in **Table 3**. The average overall estimated service life for assets can be found in **Table 5**.

Table 3: Infrastructure Services and Support Assets' Estimated Service Life

Asset	Estimated Service Life
IT Infrastructure	Assets that fall into the IT Infrastructure asset class are replaced on a five to ten (5-10) year cycle.
IT Devices and Peripherals	Assets that fall into the IT Devices and Peripherals assets class are generally replaced on a five to fifteen (5-15) year cycle. Printers are leased on four (4) year contracts and are replaced every four (4) years.

1.2.2 CONDITION SCORING

For the purpose of this report and standardizing condition scores across all assets in the Asset Management Plan, the Condition Rating is defined by three (3) Condition Scores as defined in the table below. For assets with formal consultant condition assessments, the conditions have been modified to fit into this model.

Table 4: Condition Score Description

Condition Score	Condition Rating	Description
1 - 1.4	Good	Assets in the system or network are in working order, have no or minor deficiencies. Where condition data is not available, this category applies to assets which are within the first 40% of their estimated service life.
1.5 - 2.4	Fair	Assets in the system or network show general signs of deterioration, some elements may have significant deficiencies, and asset will likely require repairs in the next 10 years. Where condition data is not available, this category applies to assets which are within 41% - 80% of their estimated service life.
2.5 - 3	Poor	Asset is below standard showing signs of significant deterioration, is in danger of imminent failure, and will require repair, replacement or removal within the next year. Where condition data is not available, this category applies to assets which have exceeded 80% of their estimated service life.

1.3. SUMMARY OF INFRASTRUCTURE SERVICES AND SUPPORT ASSETS

The summary of assets for the Infrastructure Services and Support Asset Class can be found below. The summary of assets includes: Quantity, Replacement Cost, Average Age, and Average Condition Score for each asset type in accordance with O. Reg 588/17.

1.3.1 TOTAL SUMMARY OF ASSETS

A table summarizing all Infrastructure Services and Support assets is included in **Table 5** below. Detailed information about each asset is included in individual sections. Calculations of averages have been weighted by the overall replacement value of assets. This means that assets of higher estimated replacement value will have a stronger influence on the average than if the average was calculated based on the number of assets.

The total replacement cost for all Infrastructure Services and Support assets is approximately $14.9M and they are a weighted average of 4 years old which is 44% of the overall weighted average estimated service life of 9 years. Overall Infrastructure Services and Support assets are in Good condition with a weighted average condition score of 1.1.

For **Table 5** an * on a column title indicates average value weighted by replacement value.

Table 5: Total Summary of Infrastructure Services and Support Assets

Asset	Quantity	Unit	Replacement Cost	Weighted Average Age (years)	Weighted Average Estimated Service Life (years)	% of Estimated Service Life Expended	Weighted Average Condition Score	Weighted Average Condition Description
Infrastructure Services and Support Assets Total			**$14.9M**	**4**	**9.0**	**44%**	**1.1**	**GOOD**
IT Infrastructure	2	Ea	$10.8M	4	10.0	40%	1.00	GOOD
IT Devices and Peripherals	5215	Ea	$4.1M	5	6.8	74%	1.33	GOOD

1.3.2 IT INFRASTRUCTURE

Assets within the IT Infrastructure group are related to the City's server room at City Hall and support the City's main IT network.

It can be seen in **Figure 1** that the IT Infrastructure contains two (2) assets with a total replacement cost of $10.8M. Assets are typically in Good condition with a weighted average condition score of 1.0.

The weighted average age for the City Hall Server Room Infrastructure is 4 years and was based on the year of reconstruction for the City's new City Hall (2021) and is 40% of the weighted average estimated service life of 10 years for all components. The values are weighted based on estimated replacement value.

It is important to note that the condition presented below was creating using a combination of information provided from the City's Snipe IT software and staff input.

NO. OF ASSETS	REPLACEMENT COST	WEIGHTED AVG AGE (YEARS)	WEIGHTED AVG ESTIMATED SERVICE LIFE	WEIGHTED AVG CONDITION RATING	WEIGHTED AVG CONDITION DESCRIPTION
2	$10.8M	4	10	1.00	GOOD

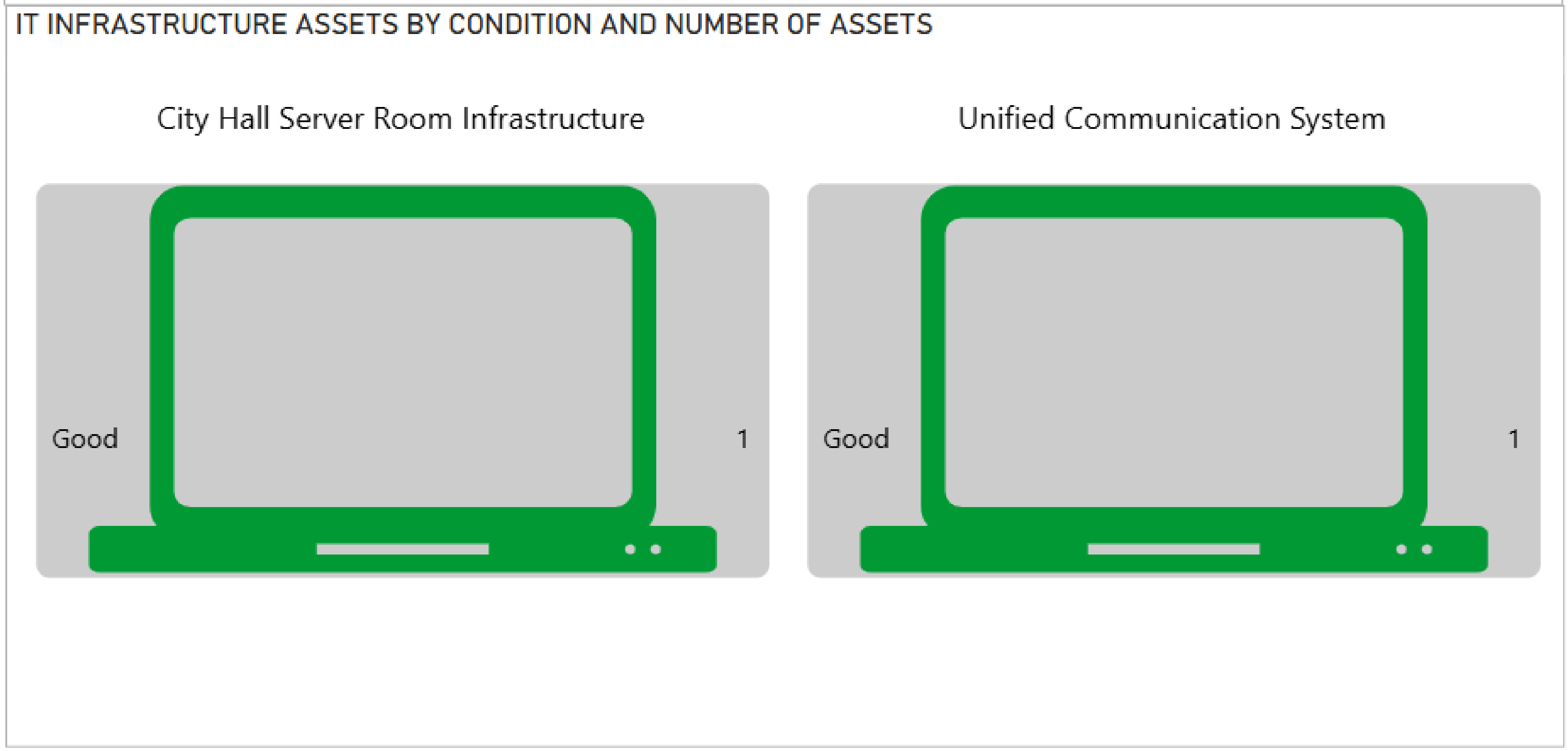

Figure 1: IT Infrastructure Asset Summary

1.3.3 IT DEVICES AND PERIPHERALS

IT Devices and Peripherals encompass a wide variety of assets that are imperative for staff to complete daily tasks.

Per **Figure 2** below, the City owns and maintains five thousand two hundred and eleven (5211) IT devices and four (4) assets within the peripherals asset class with a total replacement cost of $4.2M.

The weighted average age of the City's IT Devices and Peripherals is 4 years which is 57% of its weighted average estimated service life of 7 years. The weighted average condition of assets, based on a combination of age and informal assessment, is Good with a score of 1.3 based on the most recent condition assessment information from Snipe IT. The values are weighted based on estimated replacement value.

As noted previously, a large number of these assets are used by staff at home offices and in the field so the true condition of an asset is not always known. IT Services staff are working to develop new methodologies, including updating to a new asset tracking software, as a way to better track and maintain the condition of IT Devices and Peripherals.

NO. OF ASSETS	REPLACEMENT COST	WEIGHTED AVG AGE (YEARS)	WEIGHTED AVG ESTIMATED SERVICE LIFE	WEIGHTED AVG CONDITION RATING	WEIGHTED AVG CONDITION DESCRIPTION
5215	4.2M	4	7	1.3	GOOD

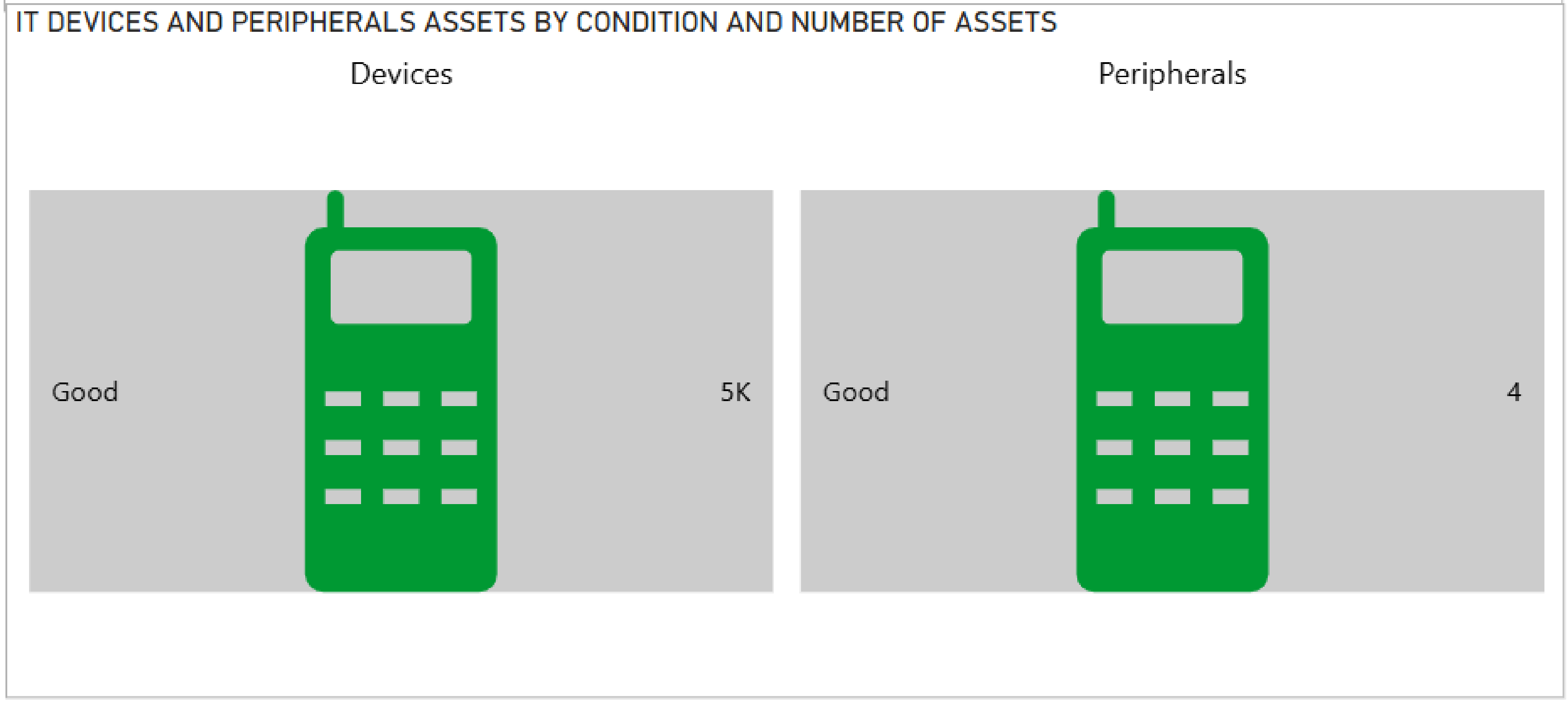

Figure 2: IT Devices and Peripherals Asset Summary

1.4. LIFECYCLE OF INFRASTRUCTURE SERVICES AND SUPPORT ASSETS

The lifecycle of Infrastructure Services and Support assets is described under four (4) categories which are described in this section:

- Key Lifecycle Stages of Infrastructure Services and Support Assets;
- Lifecycle Activities;
- Risks of Lifecycle Activities; and
- 10 Year Lifecycle Costs of Infrastructure Services and Support Assets.

1.4.1 KEY LIFECYCLE STAGES OF INFRASTRUCTURE SERVICES AND SUPPORT ASSETS

The lifecycle of an asset refers to the following stages: Planning, Creation/Acquisition, Operations and Maintenance, Renewal/Disposal which are defined in the Main Body of the report. For Infrastructure Services and Support assets specifically our general process is as follows:

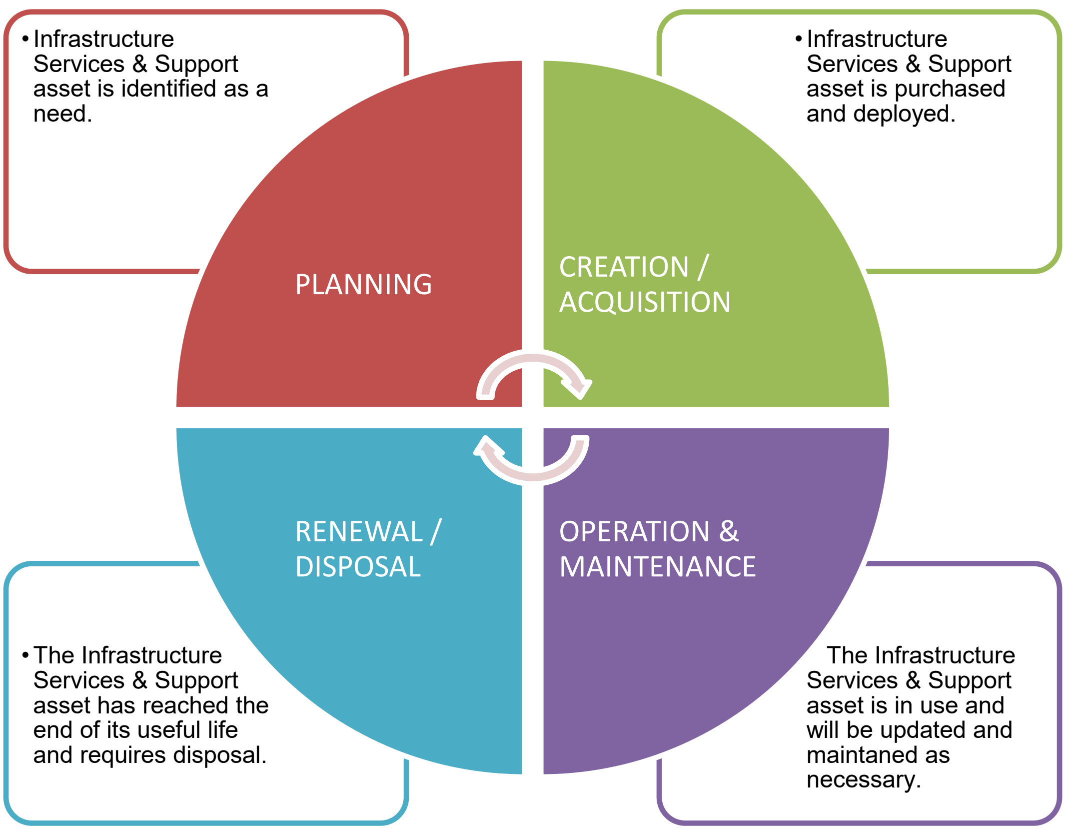

Figure 3: Lifecycle Stages of IT Assets

1. **Planning** –The Infrastructure Services and Support asset has been identified as a need. The asset is purchased considering all needs and City policies.
2. **Creation / Acquisition / Replacement** – The cost and requirements for the new asset are defined considering all City needs and policies. The asset is purchased and deployed for use by staff.
3. **Operation and Maintenance** – The Infrastructure Services and Support asset is operating and delivering services to customers. Maintenance (Lifecycle) Activities are completed on the asset at specific time intervals as shown in **Table 6** to prevent premature failures of the asset. Additional monitoring and potential improvements are evaluated during this process.
4. **Renewal / Disposal** – The Infrastructure Services and Support asset has reached the end of its useful life, has been replaced and requires disposal. The disposal considers the effect on customers such as required transition periods or service disruptions which are taken into account in the Planning stage thereby restarting the cycle. The City follows industry standards when disposing of these assets.

1.4.2 LIFECYCLE ACTIVITIES

A list of the planned Lifecycle Activities, annual cost, and frequency for each IT Services Asset Type can be found in **Table 6** below. These activities are undertaken to maintain IT Services assets and therefore maintain the current levels of service. In review of the 2024 customer levels of service survey, IT Services assets generally meet the service expectations of IT Services asset users. Therefore, these lifecycle activities will remain the same for the proposed levels of service for this iteration of the AMP. Further discussion regarding IT Services proposed Levels of Service can be found in **Section 1.5.5 Proposed Levels of Service Discussion**.

Lifecycle activities occur on each of our Infrastructure Services and Support assets. IT Infrastructure assets are maintained by IT Services staff and activities are currently tracked through the Snipe IT Asset Management software. The lifecycle of each asset is managed through this software and hardware upgrades are completed in accordance with IT asset upgrade guidelines at the City of Brantford. The variance in cost for the same lifecycle activities for different asset types is partially attributable to whether the staff cost could be determined. The City will work to standardized the inclusion of staff costs in individual lifecycle activities in future iterations of the AMP.

Table 6: Lifecycle Activities for IT Infrastructure

Asset Type	Lifecycle Activity	Annual Cost*	Frequency	Completed by
IT Infrastructure	A/C Inspection	$10,000	Once ever six (6) months	Contracted Service – IT Services
	Fire System Maintenance	See Facilities AMP	As Required	Contracted Service – IT Services
	Preventative Maintenance	$120,000	Periodic	IT Services
	Replacement	$500,000	Varies depending on Component. Every five (5) years used for the purpose of calculations.	IT Services
IT Devices and Peripherals	Preventative Maintenance	$50,000	Periodic	IT Services
	Lease of Printers	Based on usage.	Every four (4) years	IT Services
	Replacement of other IT Devices and Peripherals	$150,000	Every five (5) years	IT Services

*2025 Annual Cost is typically based on an average of the 4 year cost estimates presented in the 2025 Operating Budget.

1.4.3 RISKS OF LIFECYCLE ACTIVITIES

The identified lifecycle activities in **Table 6** above are the current and proposed activities taken on by IT Services staff or hired contractors. Some risks associated with these activities include:

- **Equipment Failure -** Equipment failure can occur during maintenance activities and this is mitigated by ensuring preventative maintenance is completed during off hours to regular business

If these activities were not completed, the risks would include:

- **Service Disruptions** due to premature failures that could have been mitigated with preventative maintenance.
- **Increased Cost** due to reactive repairs which could have been prevented with preventative maintenance.

1.4.4 10 YEAR LIFECYCLE COSTS OF INFRASTRUCTURE SERVICES AND SUPPORT ASSETS

Figure 4 below outlines the 10 year lifecycle costs of Infrastructure Services and Support assets. This graph includes the lifecycle cost for the assets which support the Current Levels of Service (LOS) and the assets required to support the Proposed LOS.

Although there is not a large number of assets needing to be replaced in the first year, the cost for Operation and Maintenance of Infrastructure Services and Support Assets outweighs the capital cost for this infrastructure each year until 2031. The spike in capital needs in 2031 can be attributed to the significant purchase of assets for the new City Hall that was opened in 2021. Specifically, the new Server Room Infrastructure has a significant replacement cost of $10.5M and is currently anticipated to have a ten (10) year lifecycle.

Based on the information presented in **Figure 4**, the total annual average capital costs for the next 10 years needed to maintain the current LOS of these Infrastructure Services and Support assets are $1.9M. The total annual average capital costs for the next 10 years needed to achieve the proposed LOS are $0.4M. The average annual Operation and Maintenance costs to maintain the current level of service are $3.7M. The average annual additional Operation and Maintenance costs to maintain the proposed level of service are $0.1M.

To determine the total estimated operating costs in a given year, the proposed LOS operating costs should be added to the current LOS operating costs. Therefore, it is recommended that the City invest $2.3M in Infrastructure Services and Support assets annually for capital work to maintain the current LOS and achieve the proposed LOS. It is recommended that $3.8M be invested annually in operating costs to maintain the current LOS and achieve the proposed LOS.

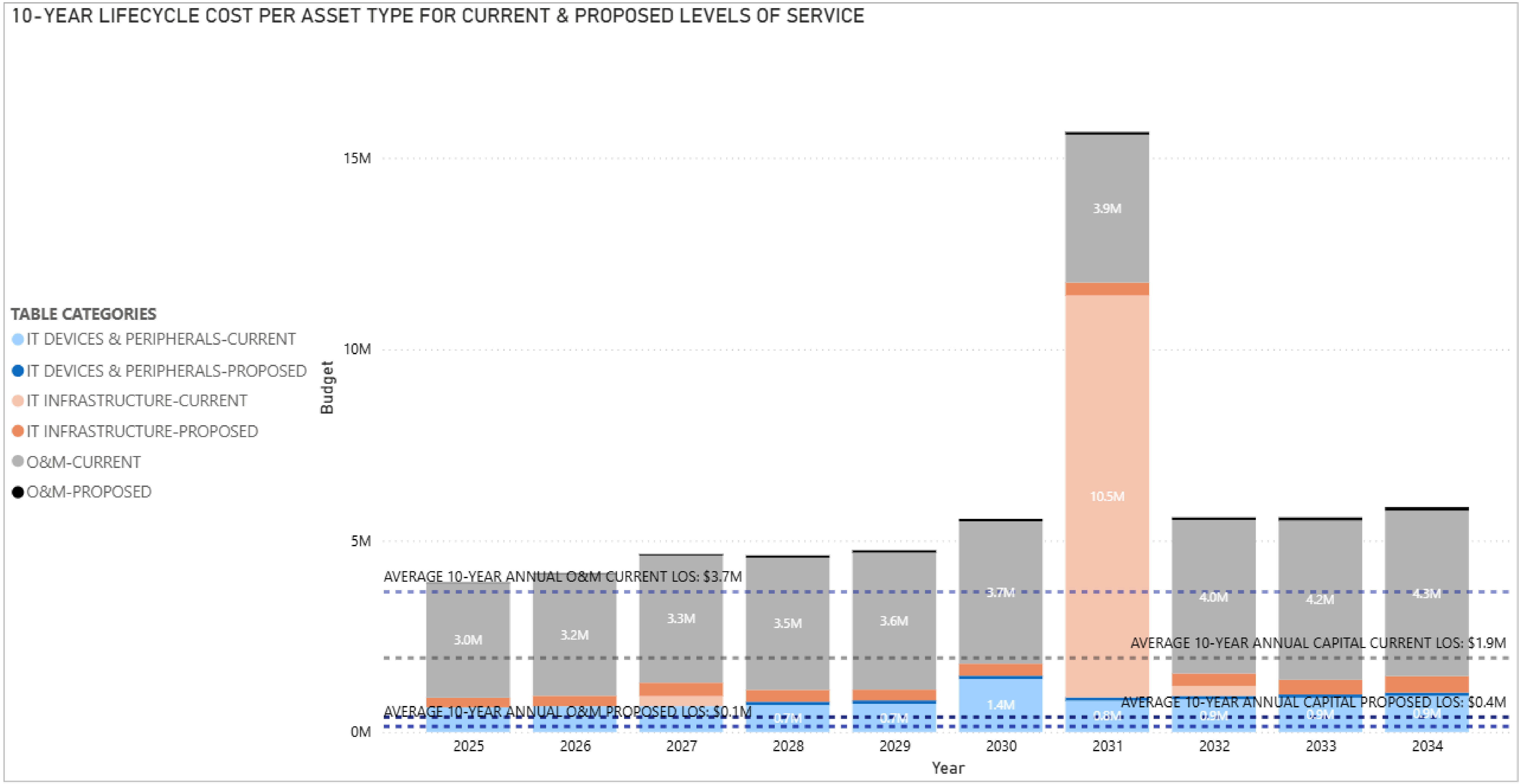

Figure 4: 10-Year Lifecycle Cost Per Infrastructure Services and Support Asset Type

Notes:

1. Operation and Maintenance Costs are estimated based on the 2025 Final Operating Budget and are inflated by 3.8% each year starting in 2029. These Operation and Maintenance Costs are associated with both IT Devices and Peripherals and IT Infrastructure.
2. For asset categories which consist of multiple individual items of similar replacement value and life expectancy, where no formal forecast was available, the amount required each year has been averaged over the life expectancy of the asset category.
3. For all other assets where no formal forecast was available, the replacement year is based on the estimated remaining service life of each asset
4. Reimbursements and revenues are ignored in order to capture total cost/expenses.

Per **Figure 5** below, the existing 10-year forecast from 2025 – 2034, further explained in **Section 8.3** of the **Asset Management Plan Overview Document**, indicates that the City is currently planning to spend an average of $1.2M on Infrastructure Services and Support assets capital annually, and as noted above, the required 10-year average yearly amount is estimated at $2.3M for these assets, which indicates there is an annual 10-year funding gap of $1.1M for Infrastructure Services and Support assets. The impacts resulting from the funding gap will be monitored and reported as appropriate.

The City of Brantford has moved to a four (4) year budget cycle and departments will complete long-term planning as opposed to annual planning for projects within this time period. The Prioritization Matrix explained in **Section 9** of the **Asset Management Plan Overview Document** has also been implemented which will help departments confirm priority projects. It is anticipated that the new process for the City's 2024 budget cycle will help departments prepare and request funding in advance of significant replacement costs for assets reaching the end of their useful life.

It is important to note that currently the City does not have access to detailed data on Operation and Maintenance costs for IT assets, but with the implementation of new asset tracking software and department initiatives, it is anticipated this information will improve in future iterations of the AMP.

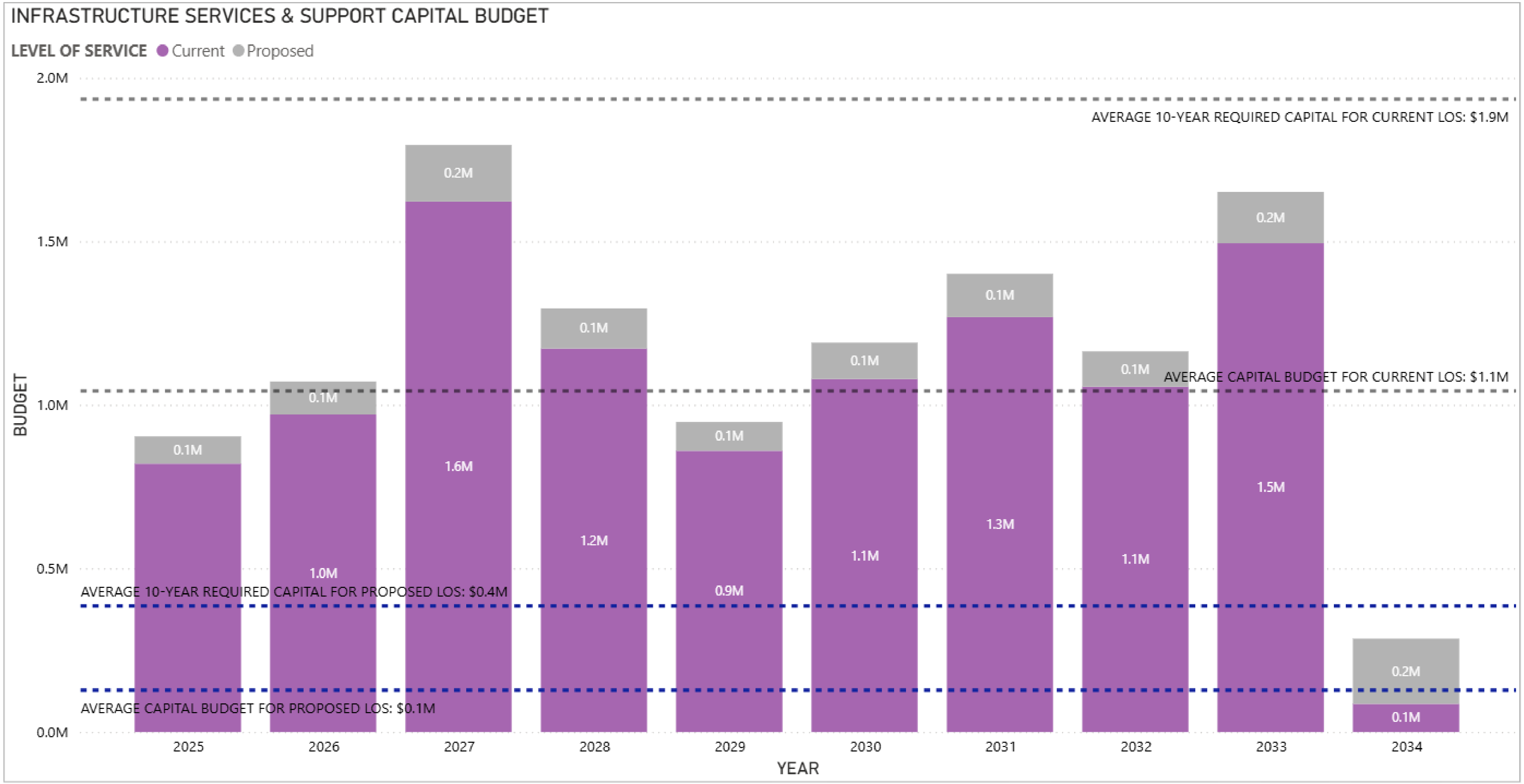

Figure 5: Capital Budget Forecast from 2025-2034 for Infrastructure Services and Support Assets

1.5. CURRENT LEVELS OF SERVICE

1.5.1 O. REG 588/17 CUSTOMER LEVELS OF SERVICE

O. Reg 588/17 does not currently have defined customer levels of service for this asset class that must be reported within this plan. This section will be kept for future plan iterations should O. Reg 588/17 be updated and require defined customer levels of service be reported.

1.5.2 O. REG 588/17 TECHNICAL LEVELS OF SERVICE

O. Reg 588/17 does not currently have defined technical levels of service for this asset class that must be reported within this plan. This section will be kept for future plan iterations should O. Reg 588/17 be updated and require defined technical levels of service be reported.

1.5.3 MUNICIPALLY DEFINED CUSTOMER LEVELS OF SERVICE

The customer levels of service are defined in **Section 6.2** of the **Asset Management Plan Overview**. For Infrastructure Services and Support assets, the asset specific interpretation of these levels of service is defined below in **Table 7.**

Table 7: Municipally Defined Customer Levels of Service

Customer Level of Service	Definition
Accessibility	Infrastructure Services and Support assets should be accessible without barriers to staff and customers.
Quality	Infrastructure Services and Support assets should deliver their intended services at a certain quality.
Cost Efficiency	Infrastructure Services and Support assets should meet the needs of the user at an affordable cost to the City.
Safety	Infrastructure Services and Support assets should ensure the safety of users by protecting personal and confidential information.
Environmental Sustainability	Infrastructure Services and Support assets purchased shall consider energy efficiency.
Reliability	Infrastructure Services and Support assets and services should be available as needed and consideration should be taken when scheduling periods of downtime for maintenance.
Responsiveness	Infrastructure Services and Support assets should be repaired promptly when unavoidable service disruptions occur. Responsiveness should account for the relative risk to the public, the asset itself and to the staff completing the response

1.5.4. MUNICIPALLY DEFINED TECHNICAL LEVELS OF SERVICE

The technical levels of service for Infrastructure Services and Support assets have been developed based on the customer levels of service defined in **Table 7**. The currently available customer levels of service with the corresponding technical levels of service and Key Performance Indicators (KPI) metrics are defined in **Table 8** under Current Actual Performance (2024 Values). Due to a moderate response rate on customer surveys conducted from 2023/2024, the confidence level in the applicability of the KPIs derived from the survey data, is Medium.

Proposed future performance metrics have been identified for the 2025 AMP and the need for additional KPIs and KPI targets has been identified. The City will look for opportunities to gather and include information for missing KPI metrics in future iterations of this AMP. N/A indicates information which is Not Available for this AMP and will be reviewed for future iterations.

The City recognizes that if assets are not renewed at the appropriate timing, it will inevitably require difficult trade-off choices that could include:

- A reduction of the level of service and availability of assets;
- Increased complaints and reduced customer satisfaction;
- Increased reactive maintenance and renewal costs; and
- Damage to the City's reputation and risk of fines or legal costs

Table 8 Levels of Service KPIs

				Proposed Future Performance									
Customer Level of Service	**Technical LOS**	**Units**	**Current Actual Performance (2024 Values)**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**
Accessibility	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Quality	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cost Efficiency*	Percentage of Employees whose needs are met or exceeded by devices & peripherals	% of Employees	73%	75%	80%	85%	90%	90%	90%	90%	90%	90%	90%
Safety	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environmental Sustainability	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Reliability	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Responsiveness	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Information obtained from staff surveys conducted in 2024, more details available in Overview Document.

1.5.5. PROPOSED FUTURE LEVEL OF SERVICE TARGETS

For the purpose of this report and the discussion surrounding proposed future levels of service targets, there are three (3) possible options defined in **Table 9** including the risks associated with those options to the long term sustainability of the municipality.

Table 9 Technical Levels of Service KPIs

Level of Service Development Options	Description	Risk Associated with Options
Decrease Level of Service	Decreasing the level of service should result in cost savings. E.g. Staff computers are replaced every 7 to 15 years.	In some circumstances, decreasing the level of service may have little impact to the overall customer experience. In others, decreasing the level of service may result in a decreased level of customer satisfaction and could lead to safety concerns and possible damage to the City's reputation. Decreasing the level of service too much for an extended period of time may result in higher costs for repairs or closure of certain assets over the long-term.
Maintain Level of Service	Maintaining the level of service should maintain costs with increases anticipated to reflect inflation. Customer experience would also be anticipated to remain the same as well as the City's reputation. Costs would be anticipated to increase minimally over time due to inflation or growth factors. E.g. Staff computers are replaced every 5 to 7 years.	If the current levels of service match customer expectation and regulatory requirement, maintaining them would typically be the recommended approach. However if the current levels of service do not match customer expectations or regulatory requirements, then maintaining them may not be the recommended approach. Similarly, City reputation may not match with what the City would prefer. If a low level of service is maintained for too long it may lead to health and safety concerns.
Increase Level of Service	Increasing the level of service should result in enhanced customer experience and City reputation. E.g. Staff computers are replaced every 3 to 5 years.	Increasing service would involve increased costs. Increasing the level of service too much, for an extended period of time, may become financially unsustainable for the City.

Each of the technical levels of service have been examined to see if and/or how the proposed levels of service differ from the current levels of service:

The Percentage of Employees whose needs are met or exceeded by devices & peripherals is currently at 73% and the City will aim to slowly increase this service level over the next four (4) years to 90% and then maintain this level of service for the remaining six (6) years. Through the implementation of asset replacement schedules and new, permanent staff to assist with devices & peripherals, the City believes that this proposed level of service is achievable.

It is important to note that customer preferences and expectations do not always align with internal technical targets. A consideration of this section is linking the customer and technical levels of service to determine areas where different levels of service could be proposed. Decisions regarding the level of service for Infrastructure Services & Support have a medium level of confidence as the initial internal 2024 survey results have a moderate level of engagement and data confidence.

1.5.6. AFFORDABILITY AND ACHEIVABILITY CONFIDENCE

To determine whether the proposed levels of service are achievable and if the City can afford the proposed level of service **Table 10** has been developed to review confidence in the proposed levels of service.

Table 10 Affordability and Achievability Confidence

Customer Level of Service	Technical LOS	Achievability Confidence	Achievability Description	Affordability Confidence	Affordability Description
Accessibility	N/A	N/A	N/A	N/A	N/A
Quality*	N/A	N/A	N/A	N/A	N/A
Cost Efficiency	Percentage of Employees whose needs are met or exceeded by devices & peripherals	High	The level of service proposed for the Percentage of Employees whose needs are met or exceeded by devices & peripherals has a High confidence for achievability due to the City's a lifecycle plan that has been implemented to ensure that staff are receiving updated/ new devices on a regular schedule. Temporary staff positions within IT Services for the Infrastructure Services and Support asset class have also become full-time permanent positions, which means there will continue to be full time staff to assist users at the City and meet the proposed level of service.	High	The level of service proposed for the Percentage of Employees whose needs are met or exceeded by devices & peripherals has a High confidence for affordability due to the City's a lifecycle plan that has been implemented so staff are receiving updated/ new devices on a regular schedule and ensures that the budget is appropriately allocated. Departments that identify staff need new or upgraded assets prior to the scheduled replacement are required to provide their own funding for these new assets.
Safety	N/A	N/A	N/A	N/A	N/A
Environmental Sustainability	N/A	N/A	N/A	N/A	N/A
Reliability	N/A	N/A	N/A	N/A	N/A
Responsiveness	N/A	N/A	N/A	N/A	N/A

It is important to note that while the proposed service level change may appear affordable when viewed in isolation of this plan specifically, when it is examined in the context of the overall budget, these levels may not be achievable and would be considered unaffordable. As service level data continues to be collected, staff will also continue to review the achievability and affordability of the levels of service proposed within the future iterations of this plan.

1.5.7. LEVEL OF SERVICE LIFECYCLE COST CONSIDERATIONS

Proper considerations should be made for the most cost effective methods that can be undertaken to achieve the lowest cost associated with a chosen level of service. **Table 11** below includes the lifecycle options available and the associated risks with the chosen options.

Table 11 Lifecycle Options and Associated Risks

Lifecycle Options	Description	Risks Associated if Undertaken	Risks Associated if Not Undertaken
Planning	Consideration is made regarding the asset involving City Master plans and the needs of internal and/or external customers.	Planning activities may extend project timeline.	If planning activities were not undertaken there is a risk missing something that we needed
Operation & Maintenance	The asset is providing benefits to the community and operation and maintenance activities (see **Table 6**) are completed on the asset at specific time intervals to prevent premature failures of the asset.	Completing operation & maintenance activities may mean that there is limited or no access to the asset for a period of time.	If O&M activities were not undertaken the asset would have premature failures, become unsafe and would cost the City more to repair or would have to be closed/removed.
Repair	The asset or a portion of the asset is no longer functioning appropriately, and a repair is needed.	Completing repair activities may mean that there is limited or no access to the asset for a period of time.	If repair activities were not undertaken the asset would no longer function as it should and would affect service levels. The asset would eventually deteriorate and need to be closed.
Replace	The asset has reached the end of its useful life and needs to be replaced to maintain service levels.	Replacing the asset may mean limited or no access to the asset during a period of time.	If replacement activities were not undertaken the asset would no longer function as it should and would affect service levels. The asset would need to be closed and eventually removed.
Remove	The asset has reached the end of its useful life or is no longer required to meet the appropriate service level and is removed.	Removing the asset may lead to a reduction in service levels.	The asset may be unsafe and could lead to health and safety concerns if not removed.
Install New/Expand	A new asset or extension to an existing asset is purchased and installed.	Installing a new asset may lead to increase costs which could lower service levels.	If a new asset is not installed this may lead to an eventual reduction in service levels.

Note: The full lifecycle stages for these assets can be found in **Section 1.4.1** and the list of specific lifecycle activity options is located in **Section 1.4.2** of this AMP.

Depending on the level of service being considered, the most cost effective method that should be undertaken to achieve the lowest cost associated with the specific level of service may actually be a combination of lifecycle activities. The combination selected will be based on that specific asset and the activities that are likely to give the lowest cost while maintaining the chosen service level.

When considering the Percentage of Employees whose needs are met or exceeded by devices & peripherals the lowest costs for lifecycle activities undertaken would be a combination of operation and maintenance activities and repairs to the existing asset. When the asset has reached the end of its useful life, there will be a need for replacement.

1.6. CURRENT & PROPOSED ASSET PERFORMANCE

The current asset performance for Infrastructure Services and Support assets have been separated into three (3) categories for this section of the report:

- Energy Performance;
- Operating Performance; and
- Sustainability Performance

1.6.1 INFRASTRUCTURE SERVICES AND SUPPORT ASSETS ENERGY PERFORMANCE

The City of Brantford has a Corporate Energy Management Plan (CEMP) which emphasizes energy efficiency within the City. The goals of the CEMP are to reduce energy use, energy intensity, and greenhouse gas (GHG) emissions in our Facilities. In addition, through the City's Climate Change Action Plan and Climate Lens Tool explained in **Section 10** of the **Asset Management Plan Overview Document**, the City has been working to improve our facilities' energy efficiency and reduce the associated carbon footprint.

Currently, the City does not have a method to track Energy Performance for the Infrastructure Services and Support asset class. This section will be kept for future iterations as ways to track Energy Performance for this asset class are explored.

1.6.2 INFRASTRUCTURE SERVICES AND SUPPORT ASSETS OPERATING PERFORMANCE

Currently, the City does not have a method to track Operating Performance for the Infrastructure Services and Support asset class. This section will be kept for future iterations as ways to track Operating Performance for this asset class are explored.

1.6.3 INFRASTRUCTURE SERVICES AND SUPPORT ASSETS SUSTAINABILITY PERFORMANCE

To determine if the City is able to provide sustainable service delivery for the Infrastructure Services and Support assets, the **Asset Sustainability Index** (ASI) is utilized. It is calculated by taking the amount the City is proposing to spend on Levels of Service (LOS) and dividing it by the amount the City is projected as needing to spend to maintain the LOS. The ASI can be calculated for the Current LOS, the Proposed LOS or the combination of the two. It can be for Capital costs, Operating & Maintenance (O&M) costs or a combination of the two.

Table 12 shows the ASI for the various scenarios and the final combined for the different asset categories. The ASI is used as a high-level assessment of whether the City is accommodating asset renewals in an optimal and cost-effective manner based on timing and relative to financial constraints. It is also an indicator of the risk the City is accepting and targeted service levels it wishes to maintain.

Table 12 Asset Sustainability Index

	Current LOS	Proposed LOS	Combined LOS
Capital Costs	54%	33%	50%
O&M Costs*	N/A	N/A	N/A
Combined Costs	-	-	50%

* Due to the way the O&M costs are derived at this time, the ASI for O&M costs has not been included in this iteration of the AMP. It is expected to be included in future iterations as the O&M data tracking on an asset class specific basis improves.

To ease understanding the ASI is reported as a percentage:

- An ASI of 100% is considered to be the best as it indicates that expenditures match what is needed to sustain levels of service. This is more efficient as it preserves infrastructure for the lowest cost over time.
- Above 100% funding should be reviewed as it suggests that the City is spending more than necessary, which may be an inefficient distribution of resources. In some circumstances this may be appropriate on a temporary basis to reduce backlogs of overdue repairs and/or replacements.
- Below 100% indicates a funding shortfall, meaning the City is not investing enough to maintain levels of service. If not addressed, this gap can lead to declines in levels of service over time.

The Infrastructure Services and Support Combined Capital ASI of 50% is lower than the Combined Capital LOS ASI for all assets of 61%.

1.7. DISCUSSION AND CONCLUSIONS

In conclusion, the City of Brantford operates and maintains approximately 5,200 Infrastructure Services and Support assets. These assets are in Good condition with a total estimated replacement cost of approximately $14.9M.

The four data confidence for IT Infrastructure are overall at a Medium level as assets are generally less than 5 years old and City staff track and maintain these assets, including data, at regular intervals. The IT Devices and Peripherals asset data confidence is overall Medium. These assets are given to staff to complete daily tasks and a large portion of the City of Brantford workforce primarily works from home or outside of the office. This makes the exact condition of assets hard to track. However, assets are replaced on a regular schedule, typically every two (2) to five (5) years, which means that assets rarely receive a poor condition rating before they are replaced. Assumptions regarding assets are continuously being improved as new data is added into the current asset tracking software and is anticipated to improve for the next iteration of this plan.

The lifecycle stages for Infrastructure Services and Support assets include: Planning, Creation, Operation and Maintenance, and Disposal. During the Planning stage, the City identifies the need for the asset; during the Creation stage, the asset is purchased and installed or deployed; during the Operation and Maintenance stage, the asset is operating and lifecycle activities (i.e. maintenance) occur on each of our assets to maintain the state of good repair; and the Disposal stage is when the asset has reached the end of its useful life or is underperforming and requires disposal.

Lifecycle activities are currently typically tracked through Snipe IT, although City staff have recently begun using more features of this program to track asset lifecycle details. Therefore, some data presented is relatively new. For more information on key database applications and work order management, please refer to **Section 4.2** respectively, in the **AMP Overview** document. As staff continue to track data and review opportunities to improve tracking, the frequency and costs associated with specific activities will be better represented.

It is estimated based on the average annual cost in the 10 Year Life Cycle Costing that the City should be spending an average $2.3M annually for capital Infrastructure Services and Support assets and will be spending an average of $3.8M on Operating and Maintenance on these assets. The City is currently proposing to spend an average of $1.2M annually on capital for Infrastructure Services and Support assets' state of good repair. This results in a funding gap of $1.1M.

Current and Proposed Levels of Service have been identified as a need for Infrastructure Services and Support assets. Currently, these levels of service will be either tracked based on reported information within Snipe IT or the City's IT Services service request system. Brantford is working to continue to develop the process to track these metrics which will assist in tracking these and any further identified KPIs for future iterations.

Considered in isolation, the Proposed Levels of Service have a High Confidence for Achievability and Affordability. When examined in the context of the overall budget, these levels of service may not be achievable and may be considered unaffordable.

Due to limited tracking for assets, the City's IT Services Department is not able to provide information for Infrastructure Services and Support asset energy and operating performance in this iteration of the AMP. The IT Services Department is currently reviewing best practices and will be looking to provide updated information in future iterations of this plan.

For Sustainability performance, the Combined Capital Level of Service Asset Sustainability Index (ASI) is 50%. This is below the Combined Capital LOS ASI for all assets of 61%.

The next iteration of this IT Services AMP document, due in 2030, will be revised to include updated and new information obtained over the next five years

2. CORPORATE INFORMATION AND BUSINESS SOLUTIONS ASSETS

2.1. INTRODUCTION

The City of Brantford owns and maintains assets under the Corporate Information and Business Solutions asset class. The purpose of this section is to present specific information about the Corporate Information and Business Solutions Asset class so that we can answer the questions posed in **Section 2** of the **Asset Management Plan (AMP) Overview Document**, and includes the following:

- Corporate Information and Business Solutions Assets' Data Inventory and Condition Approach;
- Summary of Corporate Information and Business Solutions;
- Lifecycle Activities and Cost of Corporate Information and Business Solutions Assets;
- Current and Proposed Corporate Information and Business Solutions Assets' Levels of Service;
- Current and Proposed Corporate Information and Business Solutions Asset Performance; and
- Conclusion.

2.2. CORPORATE INFORMATION and BUSINESS SOLUTIONS ASSETS' DATA INVENTORY AND CONDITION APPROACH

The City of Brantford has different approaches to establishing the condition for each Corporate Information and Business Solutions asset due to available resources, technologies, and budget restrictions.

There is currently one approach we use to assess the condition of our corporate information and business solutions assets:

- Estimated condition based on asset specific information.

A list of all condition assessments for all assets can be found in **Table 7** in the **Asset Management Plan Overview Document**.

The origin of the Corporate Information and Business Solutions asset data for inventory, replacement cost, condition as well as data confidence are provided in **Table 13** below.

Table 13: Corporate Information and Business Solutions Assets' Data Origin and Confidence Levels

	Inventory			Replacement Cost			Condition			Levels of Service		
Asset Type	**Inventory (incl. Quantity and Age) From**	**Data Confidence Level**	**Data Confidence Description**	**Replacement Cost From**	**Data Confidence Level**	**Data Confidence Description**	**Condition From**	**Data Confidence Level**	**Data Confidence Description**	**Levels of Service From**	**Data Confidence Level**	**Data Confidence Description**
Application Software	Application Inventory from the Sharepoint System	Medium	Informal inventory prepared by staff with data incomplete	Financial Statements where possible	Low	Assumptions made by staff if data unavailable.	Staff knowledge	Low	Condition not currently tracked in a formal way.	2024 Internal Staff Survey	Medium	Level of Service based on moderate response rate from internal staff surveys

Per **Table 13** above, Corporate Information and Business Solutions assets' inventory and condition data are typically at a Low or Medium confidence level with an overall average confidence level of Low.

IT Services has developed a basis model to assist staff in assessing software condition (see **Table 15**) but this model has not yet been used regularly to categorize our software. IT Services is working to assess software condition in conjunction with the development of an organizational Enterprise Architecture for the Corporate Information and Business Solutions assets.

Improvements to the inventories and assessment programs will be ongoing as a result of department priorities to close these data gaps.

Levels of Service data is at a Medium confidence as it based on the 2024 Internal Staff Survey which had a moderate response rate from City staff.

2.2.1. SERVICE LIFE

Formal condition assessments are not typically completed on Corporate Information and Business Solutions assets. Therefore, the condition has been estimated based on the estimated service life of the asset presented in **Table 14** below. Many factors may affect service life including, but not limited to, whether or not a company supports the software, the overall shift to SAAS applications, a shift towards digitization, functionality of the software package or the changing business requirements at the City of Brantford.

The average overall estimated service life for assets can be found in **Table 16**.

Table 14: Corporate Information and Business Solutions Assets' Estimated Service Life

Asset	Estimated Service Life
Application Software	The service life of Application Software assets differs between individual software packages and is based on whether or not the software is still meeting the needs of the business and the user(s). An assumption has been made that software is replaced or receives a major upgrade every ten (10) years. However, this assumption is under review and values used may change for future iterations of the Asset Management Plan.

2.2.2. CONDITION SCORING

For the purpose of this report and standardizing condition scores across all assets in the Asset Management Plan, the Condition Rating is defined by three (3) Condition Scores as defined in **Table 15** below. For assets with formal consultant condition assessments, the conditions have been modified to fit into this model.

Table 15: Condition Score Description

Condition Score	Condition Rating	Description
1 – 1.4	Good	Software has recently been replaced or purchased and is operationally sound. No timelines for replacement exist and the software is functioning as expected and meeting the needs of the business and the user.
1.5 – 2.4	Fair	Software is functioning with some issues. Technical platform may be nearing obsolescence or support will soon become unavailable. Software may be supportable but is satisfying fewer emerging needs of its business customers.
2.5 - 3	Poor	Software is no longer meeting the needs of the business and / or user(s) and requires replacement. Software may no longer be updatable, software vendor may no longer exist, or software requires old, unsupported versions of operating systems to function.

2.3. SUMMARY OF CORPORATE INFORMATION AND BUSINESS SOLUTIONS ASSETS

The summary of assets for the Corporate Information and Business Solutions Asset Class can be found below. The summary of assets includes: Quantity, Replacement Cost, Average Age, and Average Condition Score for each asset type in accordance with O. Reg 588/17.

2.3.1. TOTAL SUMMARY OF ASSETS

A table summarizing all Corporate Information and Business Solutions assets is included in **Table 16** below. Detailed information about each asset is included in individual sections. The total replacement cost for Corporate Information and Business Solutions assets is approximately $27.9M with an average age of 7 years which is 67% of the total average overall estimated service life for the asset class. Overall, Corporate Information and Business Solutions assets are in Good condition with a weighted average condition score of 1.0.

Corporate Information and Business Solutions is currently in the process of developing a system for tracking software packages utilized across the City including those that are unique to certain departments. As a result, the information provided in this section is based on staff knowledge and understanding of the assets. It is anticipated that as efforts to closely track this asset class continue, the data in future iterations will become more accurate.

Table 16: Total Summary of Corporate Information and Business Solutions Assets

Asset	Quantity	Unit	Replacement Cost	Weighted Average Age (years)	Weighted Average Estimated Service Life	Percentage of Estimated Service Life	Weighted Average Condition Score	Weighted Average Condition Description
Corporate Information and Business Solutions Total			**$27.9M**	**7**	**10**	**67%**	**1.0**	**GOOD**
Application Software	116	ea	$27.9M	7	10	67%	1.0	GOOD

2.3.2. APPLICATION SOFTWARE

Application Software at the City of Brantford encompasses all software packages that the City uses for day to day activities.

Per **Figure 6** below, Application Software can be broken down into four sub asset groups which have a total replacement cost of $27.9M.The average software age is 7 years and is 67% of the estimated service life of 10 years. The condition data below is based on available information provided by IT Services staff, based on their knowledge and experience, and a weighted average condition score of 1.0 or Good was calculated. The values are weighted based on estimated replacement value.

NO. OF APPLICATION SOFTWARE	REPLACEMENT COST	WEIGHTED AVG AGE (YEARS)	WEIGHTED ESTIMATED SERVICE LIFE	WEIGHTED AVG CONDITION SCORE	WEIGHTED AVG CONDITION DESCRIPTION
116	$27.9M	7	10	1	GOOD

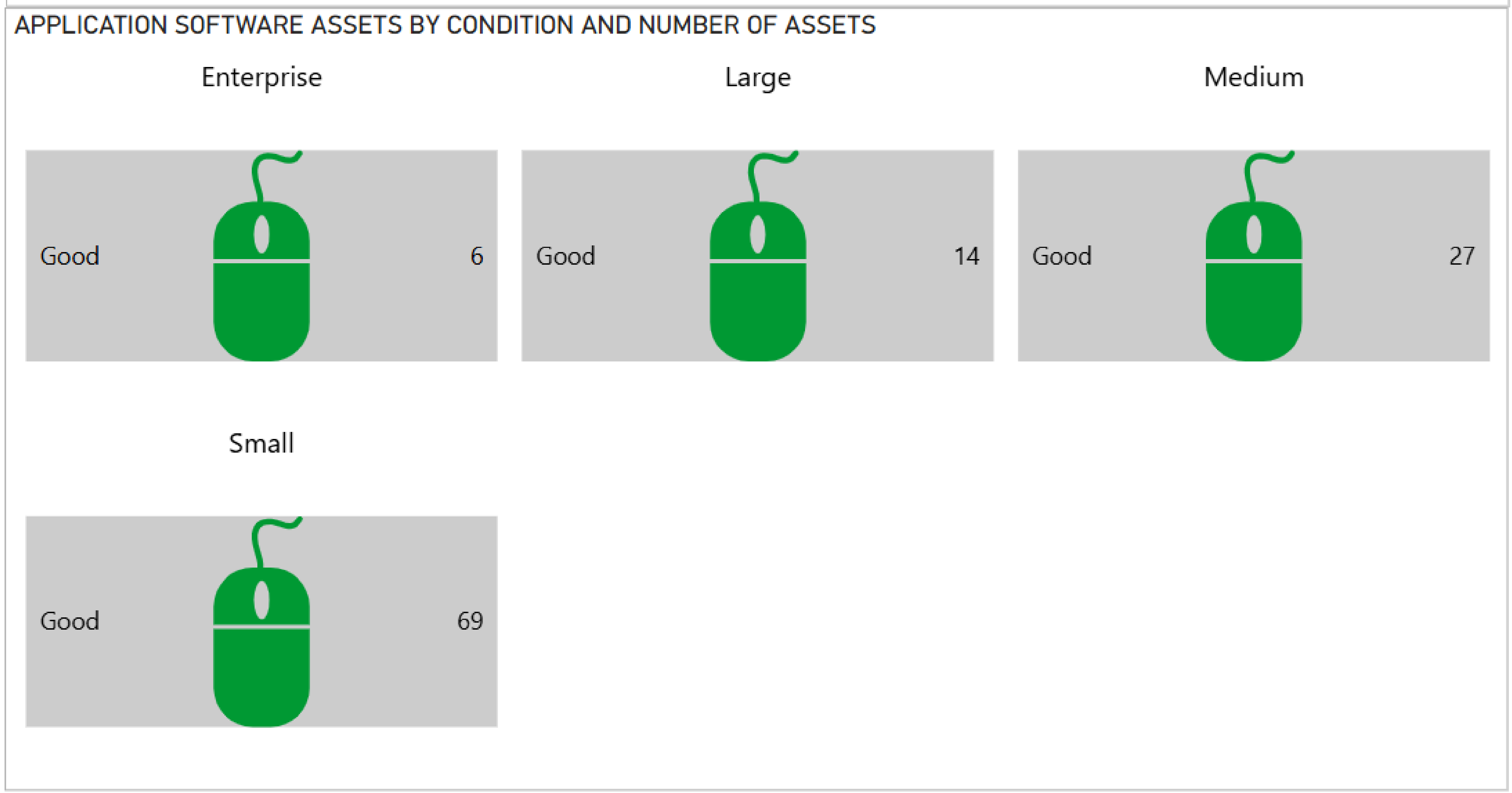

Figure 6: Application Software Asset Summary

2.4. LIFECYCLE OF CORPORATE INFORMATION AND BUSINESS SOLUTIONS ASSETS

The lifecycle of Corporate Information and Business Solutions assets consists of four (4) categories which are described in this section:

- Key Lifecycle Stages of Corporate Information and Business Solutions Assets;
- Lifecycle Activities;
- Risks of Lifecycle Activities; and
- 10 Year Lifecycle Costs of Corporate Information and Business Solutions Assets.

2.4.1. KEY LIFECYCLE STAGES OF CORPORATE INFORMATION AND BUSINESS SOLUTIONS ASSETS

The lifecycle of an asset refers to the following stages: Planning, Creation/Acquisition, Operations and Maintenance, Renewal/Disposal which are further defined in the Asset Management Plan Overview Document. For Corporate Information and Business Solutions assets specifically our general process is as follows:

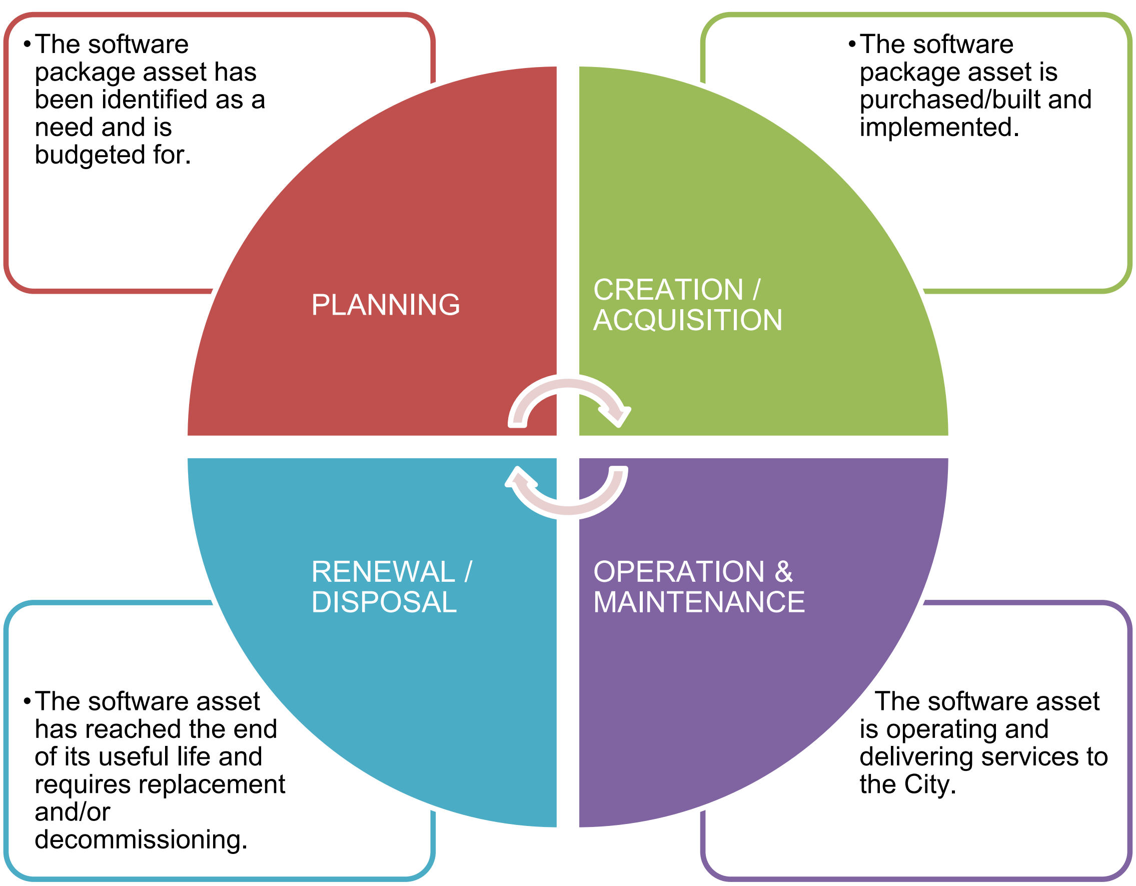

Figure 7: Lifecycle Stages of Corporate Information and Business Solutions Assets

1. **Planning** – A new Corporate Information and Business Solutions software package has been identified as a need by a department due to a vendor no longer supporting the software, a need to shift to SAAS applications or the functionality of the software package no longer meets the business requirements at the City of Brantford. The replacement asset is typically purchased from an outside vendor and considers all applicable regulations, acts and standards. Occasionally, the application is custom designed by the City's IT department. Typically this phase also involves planning on how to optimize the value of the assets which may include: consulting additional City departments to replace other software packages at the same time or improving operating and maintenance efficiencies.
2. **Creation / Acquisition / Replacement** – The cost and requirements for the Corporate Information and Business Solutions asset are defined. The asset is purchased or built and implemented. Extra care is taken at this stage to ensure the asset is designed and built properly and considers all applicable regulations, acts and standards that the City is required to follow to avoid any disruptions to service during implementation.
3. **Operation and Maintenance** – The Corporate Information and Business Solutions asset is operating and assisting the City with day to day activities and delivering services. Maintenance (Lifecycle) Activities are completed on the asset as required as indicated in **Table 17** to prevent premature failures of the asset. Additional monitoring and potential improvements are evaluated during this process.
4. **Renewal / Disposal** – The Corporate Information and Business Solutions asset has reached the end of its useful life, is underperforming and requires disposal. The disposal considers the effect on customers such as delays in services or service disruptions which are taken into account in the Planning stage thereby restarting the cycle. The City follows industry standard when disposing of these assets.

2.4.2. LIFECYCLE ACTIVITIES

A list of the planned Lifecycle Activities, annual cost, and frequency for Corporate Information and Business Solutions assets can be found in **Table 17** below. These activities are currently being undertaken to maintain Corporate Information and Business Solutions assets and therefore maintain the current levels of service. In review of the 2024 internal staff survey, Corporate Information and Business Solutions meets the service expectations of Corporate Information and Business Solutions asset users. Therefore, these lifecycle activities will remain the same for the proposed levels of service. Further discussion regarding Corporate Information and Business Solutions proposed Levels of Service can be found in **Section 2.5.5 Proposed Levels of Service Discussion**. Due to data limitations at this time, the City will maintain the lifecycle activities which have been performed in the past and activities listed will be updated as improved data becomes available.

Table 17: Lifecycle Activities for Corporate Information and Business Solutions Assets

Asset Type	Lifecycle Activity	Annual Cost*	Frequency	Completed by
Software Applications	Software Updates	$2,400,000	As needed	Vendor or Corporate Information and Business Solutions
	Module Additions or Replacements	$0	As needed	Vendor or Corporate Information and Business Solutions

*2025 Annual Cost is typically based on estimates presented in the 2025 Operating Budget averaged over the 4 years of the budget.

Lifecycle activities occur on software application assets to ensure that software operates at high efficiency. Activities related to software updates are not formally tracked. IT Services is currently in the process of developing a formal system to manage and track updates and decommissioning of software assets.

When these activities are integrated into a tracking system the frequency and cost associated with these activities will be better represented. At this time, the costs associated with the Operating and Maintenance activities on these assets are estimated based on 2025 Operating Budget and are not formally recorded, but future iterations of the AMP should include actual costs, frequency, and time associated with these activities.

2.4.3. RISKS OF LIFECYCLE ACTIVITIES

The identified lifecycle activities in **Table 17** above are the current and proposed taken on by Corporate Information and Business Solutions. However, some risks with these activities include:

- **Vendor Error** – When a vendor puts out a software update this change to the software may accidently impair the functionality of the software to partially or completely render it unusable for users.
- **Security Breach** – accidently exposing personal information of staff, customers and residents.

However, if these activities were not completed, the risks would include:

- **Service Disruptions** due to failures that could have been mitigated with preventative maintenance (e.g. regular software updates).
- **Security Risks** due to hackers being able to access City software that could have been mitigated with preventative maintenance (e.g. regular software updates).
- **Negative Reputation** due to a breach or accidental release of private information, damaging the City's reputation.
- **Increased Cost** due to reactive repairs which could have been mitigated with preventative maintenance (e.g. reactive repairs are often more expensive than planned repairs).

2.4.4. 10 YEAR LIFECYCLE COSTS OF CORPORATE INFORMATION AND BUSINESS SOLUTIONS ASSETS

Figure 8 below outlines the 10 year lifecycle costs of Corporate Information and Business Solutions assets. This graph includes the lifecycle cost for the assets which support the Current Levels of Service (LOS) and the assets required to support the Proposed LOS.

Typically when the condition of an asset is estimated based on service life there are spikes in the first year to account for the backlog of assets that have exceeded their service lives. However, the majority of these assets are performing as the City of Brantford requires and, with regular updates and maintenance, are not necessarily planned for replacement. It can be difficult to predict the service life of Application Software as the lifecycle differs between individual software packages and is based on whether or not the software is still meeting the needs of the business and the user(s). It is anticipated that changes to how we evaluate the lifecycle of software packages will change with the next iteration of this plan.

The 10-year annual capital cost is lower than the average annual cost for operations and maintenance.

Based on the information presented in **Figure 8**, the total annual average capital costs for the next 10 years needed to maintain the current LOS of these Corporate Information and Business Solutions assets are $2.6M. The total annual average capital costs for the next 10 years needed to achieve the proposed LOS are $0.0M. The average annual Operation and Maintenance costs to maintain the current level of service are $6.2M. The average annual additional Operation and Maintenance costs to maintain the proposed level of service are $230,000.

To determine the total estimated operating costs in a given year, the proposed LOS operating costs should be added to the current LOS operating costs. Therefore, it is recommended that the City invest $2.6M in Corporate Information and Business Solutions assets s annually for capital work to maintain the current LOS and achieve the proposed LOS. It is recommended that $6.4M be invested annually in operating costs to maintain the current LOS and achieve the proposed LOS.

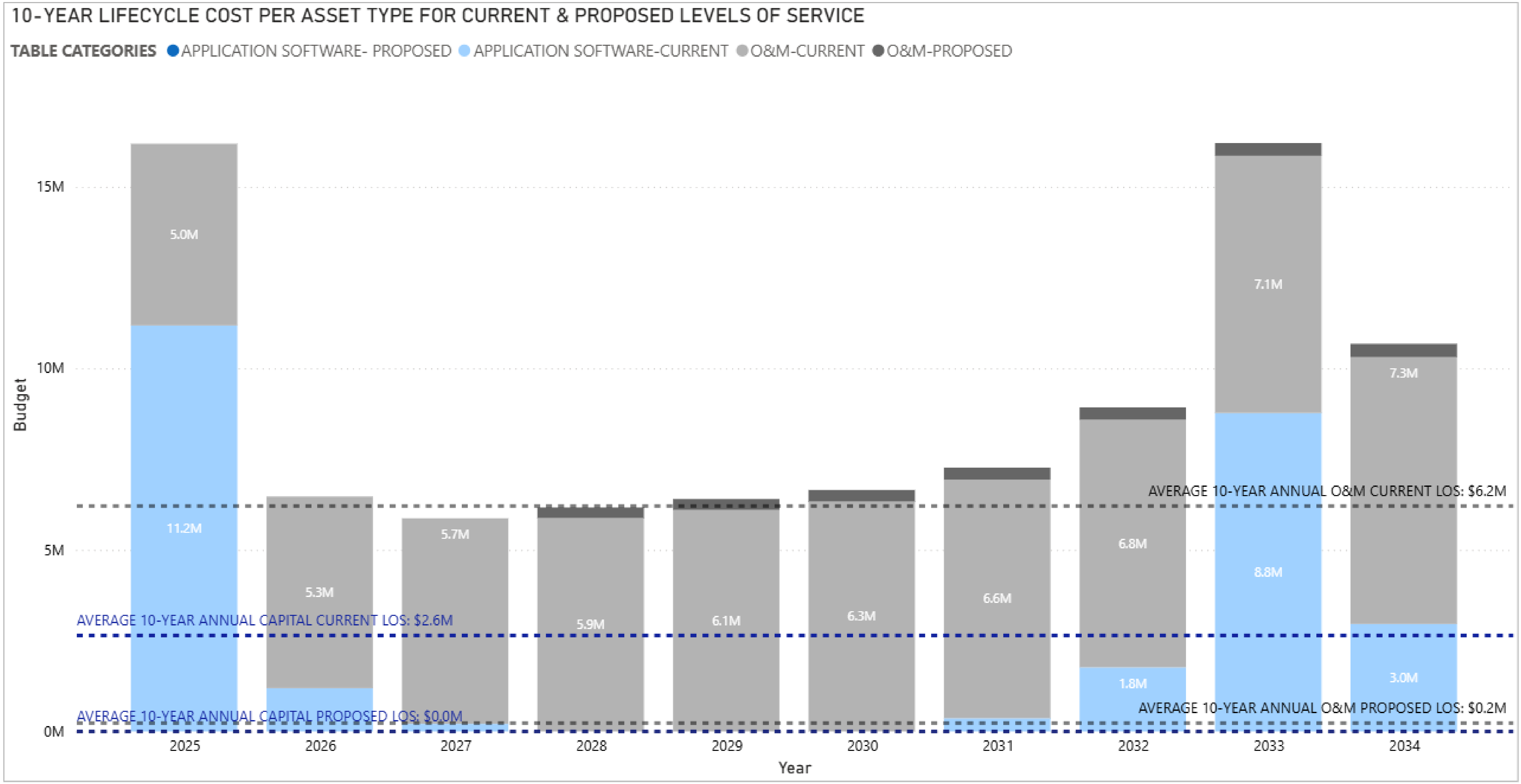

Figure 8: 10-Year Lifecycle Cost per Corporate Information and Business Solution Asset Type

Notes:

1. Operation and Maintenance Costs are estimated based on the 2025 Final Operating Budget and are inflated by 3.8% each year starting in 2029.
2. For asset categories which consist of multiple individual items of similar replacement value and life expectancy, where no formal forecast was available, the amount required each year has been averaged over the life expectancy of the asset category.
3. For all other assets where no formal forecast was available, the replacement year is based on the estimated remaining service life of each asset
4. Reimbursements and revenues are ignored in order to capture total cost/expenses.

Per **Figure 9** below, the existing 10-year forecast from 2025 – 2034, further explained in **Section 8.3** of the **Asset Management Plan Overview Document** , indicates that the City is currently planning to spend an average of $0.0M on IT assets capital annually, and as noted above, the required 10-year average amount is $2.6M for IT assets. Therefore there is currently an average annual 10-year funding gap of $2.6M for IT assets. It is important to note that funding for Capital works frequently comes from other City departments that require improvements, updates or changes to existing application software assets. In addition the City is currently moving towards fewer capital purchases of software towards more Software as a Service (SaaS) procurements which is currently treated as an operating cost by the City.

Any impacts resulting from funding gaps noted below will be monitored and reported as appropriate. Based on the graph the City may want to adjust funding appropriately or implement new procedures to track proposed funding to attempt to reach the average costs for the Current and Proposed Levels of Service (LOS)

The City of Brantford has moved to a four (4) year budget cycle and departments will complete long-term planning as opposed to annual planning for projects within this time period. The Prioritization Matrix explained in **Section 9** of the **Asset Management Plan Overview Document** has also been implemented which will help departments confirm priority projects. It is anticipated that the new process for the City's 2024 budget cycle will help departments prepare and request funding in advance of significant replacement costs for assets reaching the end of their useful life.

Currently the City does not have access to detailed data on Operation and Maintenance costs for IT assets, but with the implementation of new asset tracking software and department initiatives, it is anticipated this information will improve in the next iteration of the AMP.

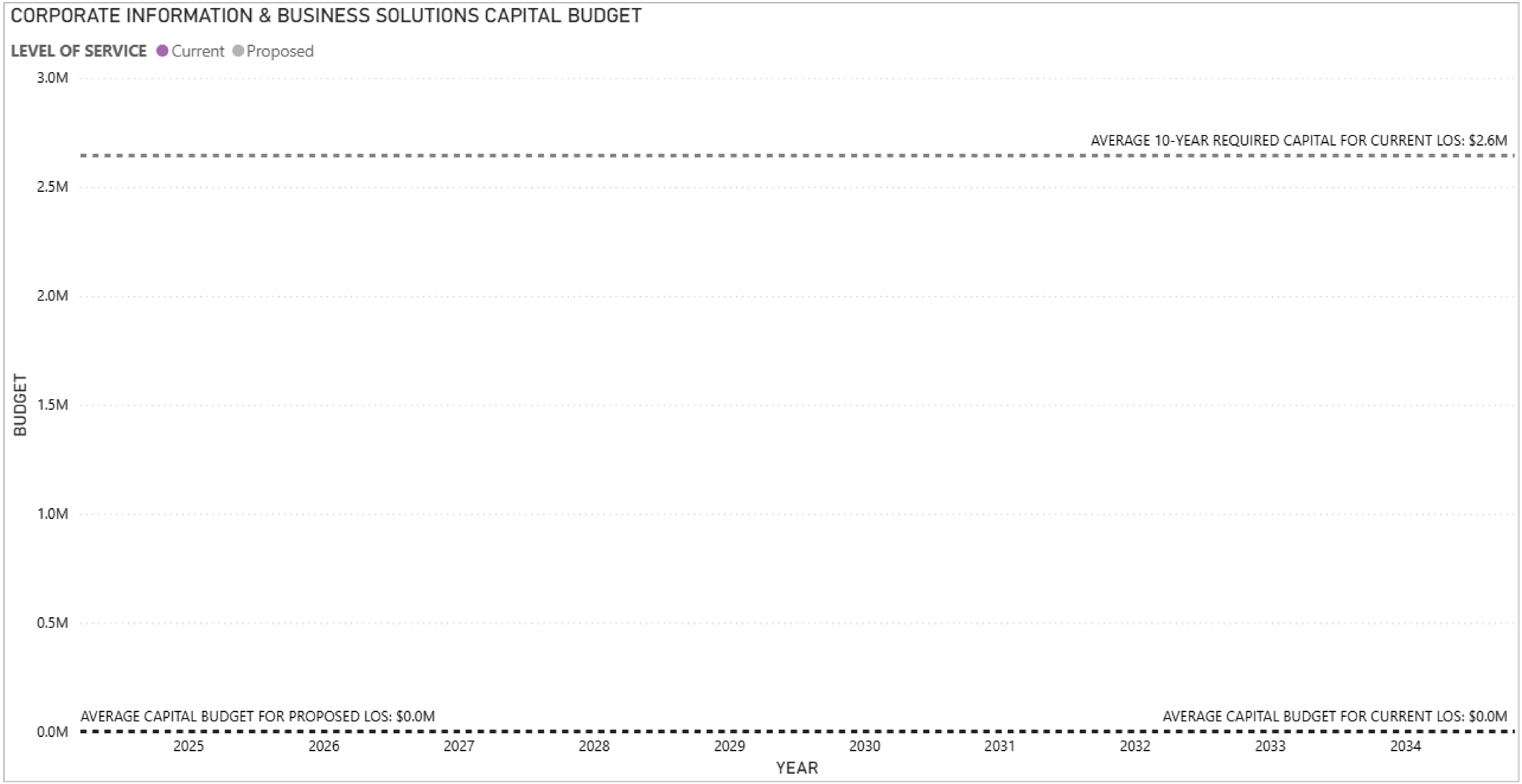

Figure 9: Existing Capital Budget Forecast from 2025– 2034 for Corporate Information and Business Solution Assets

2.5. CURRENT LEVELS OF SERVICE

2.5.1. O.REG 588/17 CUSTOMER LEVELS OF SERVICE

O. Reg 588/17 does not currently have defined customer levels of service for this asset class that must be reported in this plan. This section will be kept for future iterations in case O. Reg 588/17 requires defined customer levels of service be reported.

2.5.2. O.REG 588/17 TECHNICAL LEVELS OF SERVICE

O. Reg 588/17 does not currently have defined technical levels of service for this asset class that must be reported in this plan. This section will be kept for future iterations in case O. Reg 588/17 requires defined technical levels of service be reported.

2.5.3. MUNICIPALLY DEFINED CUSTOMER LEVELS OF SERVICE

The customer levels of service are defined in **Section 6.2** of the **Asset Management Plan Overview**. For Corporate Information and Business Solutions assets, the asset specific interpretation of these levels of service is defined below in **Table 18**.

Table 18: Municipally Defined Customer Levels of Service

Customer Level of Service	Definition
Accessibility	Corporate Information and Business Solutions assets should be accessible for all customers without disruption as much as possible.
Quality	Corporate Information and Business Solutions assets should deliver their intended purpose at a certain quality, and assets should have sufficient capacity.
Cost Efficiency	Corporate Information and Business Solutions assets should operate efficiently with extra care to minimize costs while meeting user needs.
Safety	Corporate Information and Business Solutions assets should ensure the safety of users by protecting personal and confidential information.
Environmental Sustainability	Corporate Information and Business Solutions assets should operate as environmentally as possible and promote sustainable choices including digitizing business processes.
Reliability	Corporate Information and Business Solutions assets should be available as needed and consideration should be taken when scheduling periods of downtime for maintenance.
Responsiveness	Corporate Information and Business Solutions assets should be fixed quickly when service disruptions occur. Responsiveness should account for the relative risk to the public, the asset itself and to the staff completing the response.

2.5.4. MUNICIPALLY DEFINED TECHNICAL LEVELS OF SERVICE

The technical levels of service for Corporate Information and Business Solutions assets have been developed based on the customer levels of service defined in **Table 18**. The currently available customer levels of service with the corresponding technical levels of service and Key Performance Indicators (KPI) metrics are defined in **Table 19** under Current Actual Performance (2024 Values). Due to a moderate response rate on staff surveys conducted in 2024, the confidence level in the applicability of the KPIs derived from the survey data is Medium.

Proposed future performance metrics have been identified for the 2025 AMP and the need for additional KPIs and KPI targets has been identified. The City will look for opportunities to gather and include information for missing KPI metrics in future iterations of this AMP. N/A indicates information which is Not Available for this AMP and will be reviewed for future iterations.

The City recognizes that if assets are not renewed at the appropriate timing, it will inevitably require difficult trade-off choices that could include:

- A reduction of the level of service and availability of assets;
- Increased complaints and reduced customer satisfaction;
- Increased reactive maintenance and renewal costs; and
- Damage to the City's reputation and risk of fines or legal costs

Table 19 Customer Levels of Service KPIs

				Proposed Future Performance									
Customer Level of Service	**Technical LOS**	**Units**	**Current Actual Performance (2024 Values)**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**
Accessibility	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Quality*	Percentage of Employees whose needs are met or exceeded by software applications	% of Employees	69%	75%	80%	85%	90%	90%	90%	90%	90%	90%	90%
Cost Efficiency	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Safety	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environmental Sustainability	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Reliability	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Responsiveness	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Information obtained from staff surveys conducted in 2024, more details available in Overview Document.

2.5.5. PROPOSED FUTURE LEVEL OF SERVICE TARGETS

For the purpose of this report and the discussion surrounding proposed future levels of service targets, there are three (3) possible options defined in **Table 20** including the risks associated with those options to the long term sustainability of the municipality.

Table 20 Technical Levels of Service KPIs

Level of Service Development Options	Description	Risk Associated with Options
Decrease Level of Service	Decreasing the level of service should result in cost savings. E.g. Software is replaced or revamped every 12 years.	In some circumstances, decreasing the level of service may have little impact to the overall customer experience. In others, decreasing the level of service may result in a decreased level of customer satisfaction and could lead to safety concerns and possible damage to the City's reputation. Decreasing the level of service too much for an extended period of time may result in higher costs for repairs or closure of certain assets over the long-term.
Maintain Level of Service	Maintaining the level of service should maintain costs with increases anticipated to reflect inflation. Customer experience would also be anticipated to remain the same as well as the City's reputation. Costs would be anticipated to increase minimally over time due to inflation or growth factors. E.g. Software is replaced or revamped every 10 years.	If the current levels of service match customer expectation and regulatory requirement, maintaining them would typically be the recommended approach. However if the current levels of service do not match customer expectations or regulatory requirements, then maintaining them may not be the recommended approach. Similarly, City reputation may not match with what the City would prefer. If a low level of service is maintained for too long it may lead to health and safety concerns.
Increase Level of Service	Increasing the level of service should result in enhanced customer experience and City reputation. E.g. Software is replaced or revamped every 5 years.	Increasing service would involve increased costs. Increasing the level of service too much, for an extended period of time, may become financially unsustainable for the City.

Each of the technical levels of service have been examined to see if and/or how the proposed levels of service differ from the current levels of service:

The Percentage of Employees whose needs are met or exceeded by software applications is currently 69% and is planned to slowly be increased to 90% over the next four (4) years and then be maintained at 90% for the remaining six (6) years. It is anticipated that this level of service can be increased as the City has implemented Office 365 and a new employee onboarding process to assist staff with their daily use of Corporate Information and Business Solutions assets. This level of service will also be met through a combination of better communication with staff regarding upcoming changes and the implementation of a new IT Services request software.

It is important to note that customer preferences and expectations do not always align with internal technical targets. A consideration of this section is linking the customer and technical levels of service to determine areas where different levels of service could be proposed. Decisions regarding the level of service for Corporate Information and Business Solutions have a high level of confidence as the initial internal 2024 survey results have a high level of engagement and data confidence.

2.5.6. AFFORDABILITY AND ACHEIVABILITY CONFIDENCE

To determine whether the proposed levels of service are achievable and if the City can afford the proposed level of service **Table 17** has been developed to review confidence in the proposed levels of service.

Table 21 Affordability and Achievability Confidence

Customer Level of Service	Technical LOS	Achievability Confidence	Achievability Description	Affordability Confidence	Affordability Description
Accessibility	N/A	N/A	N/A	N/A	N/A
Quality*	Percentage of Employees whose needs are met or exceeded by software applications	Medium	The Percentage of Employees whose needs are met or exceeded by software has Medium confidence selected for achievability as the software needs of users may be subject to change very quickly. However, new software and open communication between the IT Services department and users should ensure that needs are met and the proposed level of service is maintained.	High	The Percentage of Employees whose needs are met or exceeded by software has High confidence for Affordability as the Corporate Information and Business Solutions budget considers renewals and, should a department identify a need for and additional software / license, this department would be required to provide the additional funds before the purchase would be made.
Cost Efficiency	N/A	N/A	N/A	N/A	N/A
Safety	N/A	N/A	N/A	N/A	N/A
Environmental Sustainability	N/A	N/A	N/A	N/A	N/A
Reliability	N/A	N/A	N/A	N/A	N/A
Responsiveness	N/A	N/A	N/A	N/A	N/A

It is important to note that while the proposed service level change may appear affordable when viewed in isolation of this plan specifically, when it is examined in the context of the overall budget, these levels may not be achievable and would be considered unaffordable. As service level data continues to be collected, staff will also continue to review the achievability and affordability of the levels of service proposed within the future iterations of this plan.

2.5.7. LEVEL OF SERVICE LIFECYCLE COST CONSIDERATIONS

Proper considerations should be made for the most cost effective methods that can be undertaken to achieve the lowest cost associated with a chosen level of service. **Table 22** below includes the lifecycle options available and the associated risks with the chosen options.

Table 22 Lifecycle Options and Associated Risks

Lifecycle Options	Description	Risks Associated if Undertaken	Risks Associated if Not Undertaken
Planning	Consideration is made regarding the asset involving the needs of internal and/or external customers.	Planning activities may extend project timeline.	If planning activities were not undertaken there is a risk missing something that we needed
Operation & Maintenance	The asset is providing benefits to the community and operation and maintenance activities (see **Table 17**) are completed on the asset at specific time intervals to prevent premature failures of the asset.	Completing operation & maintenance activities may mean that there is limited or no access to the asset for a period of time.	If O&M activities were not undertaken the asset would have premature failures, become unsafe and would cost the City more to repair or would have to be closed/removed.
Repair	The asset or a portion of the asset is no longer functioning appropriately, and a repair is needed.	Completing repair activities may mean that there is limited or no access to the asset for a period of time.	If repair activities were not undertaken the asset would no longer function as it should and would affect service levels. The asset would eventually deteriorate and no longer function.
Replace	The asset has reached the end of its useful life and needs to be replaced to maintain service levels.	Replacing the asset may mean limited or no access to the asset during a period of time.	If replacement activities were not undertaken the asset would no longer function as it should and would affect service levels.
Create New	A new asset may need to be created.	A new asset may need to be created to support a function or to replace an old, existing asset that has reached the end of its useful life.	If a new asset is not created this may lead to an eventual reduction in service levels.

Note: The full lifecycle stages for these assets can be found in **Section 1.4.1** and the list of specific lifecycle activity options is located in **Section 1.4.2** of this AMP.

Depending on the level of service being considered, the most cost effective method that should be undertaken to achieve the lowest cost associated with the specific level of service may actually be a combination of lifecycle activities. The combination selected will be based on that specific asset and the activities that are likely to give the lowest cost while maintaining the chosen service level.

When considering the Percentage of Employees whose needs are met or exceeded by software applications the lowest costs for lifecycle activities undertaken would be a combination of operation and maintenance activities and repairs to the existing asset. When the asset has reached the end of its useful life, there would be a need for replacement.

2.6. CURRENT & PROPOSED ASSET PERFOMANCE

The current asset performance for Corporate Information and Business Solutions assets has been separated into three (e) categories for this section of the report:

- Energy Performance;
- Operating Performance; and
- Sustainability Performance

2.6.1. CORPORATE INFORMATION AND BUSINESS SOLUTIONS ENERGY PERFORMANCE

The City of Brantford has a Corporate Energy Management Plan (CEMP) which emphasizes energy efficiency within the City. The goals of the CEMP are to reduce energy use, energy intensity, and greenhouse gas (GHG) emissions in our Facilities. In addition, through the City's Climate Change Action Plan and Climate Lens Tool explained in **Section 10** of the **Asset Management Plan Overview Document**, the City has been working to improve our facilities' energy efficiency and reduce the associated carbon footprint.

Currently, the City does not have a method to track Energy Performance for the Corporate Information and Business Solutions asset class. This section will be kept for future iterations as ways to track Energy Performance for this asset class are explored.

2.6.2. CORPORATE INFORMATION AND BUSINESS SOLUTIONS OPERATING PERFORMANCE

Currently, the City does not have a method to track Operating Performance for the Corporate Information and Business Solutions asset class. This section will be kept for future iterations as ways to track Operating Performance for this asset class are explored.

2.6.3. CORPORATE INFORMATION AND BUSINESS SOLUTIONS SUSTAINABILITY PERFORMANCE

To determine if the City is able to provide sustainable service delivery for the Corporate Information and Business Solutions assets, the **Asset Sustainability Index** (ASI) is utilized. It is calculated by taking the amount the City is proposing to spend on Levels of Service (LOS) and dividing it by the amount the City is projected as needing to spend to maintain the LOS. The ASI can be calculated for the Current LOS, the Proposed LOS or the combination of the two. It can be for Capital costs, Operating & Maintenance (O&M) costs or a combination of the two.

Table 14 shows the ASI for the various scenarios and the final combined for the different asset categories. The ASI is used as a high-level assessment of whether the City is accommodating asset renewals in an optimal and cost-effective manner based on timing and relative to financial constraints. It is also an indicator of the risk the City is accepting and targeted service levels it wishes to maintain.

Table 23 Asset Sustainability Index

	Current LOS	Proposed LOS	Combined LOS
Capital Costs	0%	0%	0%
O&M Costs*	N/A	N/A	N/A
Combined Costs	-	-	0%

* Due to the way the O&M costs are derived at this time, the ASI for O&M costs has not been included in this iteration of the AMP. It is expected to be included in future iterations as the O&M data tracking on an asset class specific basis improves.

To ease understanding the ASI is reported as a percentage:

- An ASI of 100% is considered to be the best as it indicates that expenditures match what is needed to sustain levels of service. This is more efficient as it preserves infrastructure for the lowest cost over time.
- Above 100% funding should be reviewed as it suggests that the City is spending more than necessary, which may be an inefficient distribution of resources. In some circumstances this may be appropriate on a temporary basis to reduce backlogs of overdue repairs and/or replacements.
- Below 100% indicates a funding shortfall, meaning the City is not investing enough to maintain levels of service. If not addressed, this gap can lead to declines in levels of service over time.

The Corporate Information and Business Solutions Combined Capital ASI of 0% is below the Combined Capital LOS ASI for all assets of 61%. It is an indication that no capital budget has been allocated to these assets at this time. Software projects can take multiple years to deploy, in some circumstances that will mean that while budget is allocated to active projects, it was allocated in previous years and therefore is not reflected in calculations which are focused on the upcoming 10 year period.

2.7. DISCUSSION AND CONCLUSIONS

In conclusion, the City of Brantford operates and maintains Corporate Information and Business Solutions assets. These assets are in Good condition with a total estimated replacement cost of approximately $27.9M.

The four data confidence criteria for Application Software are at an overall confidence level of Low as assets have only recently been tracked and information is based heavily on staff input. Assumptions regarding assets are continuously being improved as new data is added into the new, staff developed asset tracking system and is anticipated to improve for the next iteration of this plan.

The lifecycle stages for Corporate Information and Business Solutions assets includes: Planning, Creation, Operation and Maintenance, and Disposal. During the Planning stage, the City identifies the need for the asset; during the Creation stage, the asset is purchased and installed or designed and built by in house staff; during the Operation and Maintenance stage, the asset is operating and lifecycle activities (i.e. maintenance) occur on each of our assets to maintain the state of good repair; and the Disposal stage is when the asset has reached the end of its useful life or is underperforming and requires disposal.

Lifecycle activities are now being tracked through the new, staff developed asset tracking system. Therefore, most data presented is relatively new.

It is estimated based on the average annual cost in the 10 Year Life Cycle Costing that the City should be spending an average $2.6M annually for capital Corporate Information and Business Solutions assets and will be spending an average of $6.4M on Operating and Maintenance on these assets. The City is currently proposing to spend an average of $0.0M annually on capital for Corporate Information and Business Solutions assets' state of good repair. However, as noted within this plan, capital funding for Corporate Information and Business Solutions assets can sometimes come from other departments and in some cases is transitioning to an operating cost. Tracking these funding sources and changes will need to be investigated for future iterations of the plan.

The service life of Application Software assets within the Corporate Information and Business Solutions asset class can be difficult to predict as the lifecycle differs between individual software packages and is based on whether or not the software is still meeting the needs of the business and the user(s). Data regarding the lifecycle of these assets is anticipated to improve as staff continue to track and update data within the new, staff developed asset tracking software currently being used. Improvements to this data are anticipated with future iterations of this plan.

Current and Proposed Levels of Service have been identified as a need for Corporate Information and Business Solutions assets. These levels of service will be either tracked based on the City's IT Services service request system or within the new, staff developed asset tracking system. Brantford is working to continue to develop the process to track these metrics which will assist in tracking these and any further identified KPIs for future iterations.

Considered in isolation, the Proposed Levels of Service have a Medium to High Confidence for Achievability and Affordability. When examined in the context of the overall budget, these levels of service may not be achievable and may be considered unaffordable.

The City's IT Services Department is not able to provide information for Infrastructure Services and Support asset energy and operating performance in this iteration of the AMP. The IT Services Department is currently reviewing best practices and will be looking to provide updated information in future iterations of this plan.

For Sustainability performance, the Combined Capital Level of Service Asset Sustainability Index (ASI) is 0%. This is below the Combined Capital LOS ASI for all assets of 61%. Software projects can take multiple years to deploy, in some circumstances that will mean that while budget is allocated to active projects, it was allocated in previous years and therefore is not reflected in calculations which are focused on the upcoming 10 year period.

The next iteration of this IT Services AMP document, due in 2030, will be revised to include updated and new information obtained over the next five years.