2025

London and Middlesex Community Housing Asset Management Plan

City of London

london.ca/CAM

LONDON & MIDDLESEX COMMUNITY HOUSING

London CANADA

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Land Acknowledgement

London and Middlesex Community Housing (LMCH) provides housing on the traditional lands of the Anishinaabek (AUh-nish-in-ah-bek), Haudenosaunee (Ho-den-no-show-nee), Lūnaapéewak (Len-ah-pay-wuk) and Attawandaron (Adda-won-da-run). We acknowledge the local First Nations communities in this area, the Territory of the Chippewa (CHIP-I-WAA) of the Thames, the Oneida (OH-NY-DUH) of the Thames, and the Muncey (m-UH-n-s-ee) Delaware Nation. We honour and respect the history, languages and culture of the diverse Indigenous people who call this territory home. Today, the City of London & Middlesex County is home to many First Nations, Métis and Inuit people. We are grateful to have the opportunity to work and live in this territory.

Staff Acknowledgment

The Corporate Asset Management (CAM) office would like to acknowledge LMCH staff for the effort and support they put forth to help accumulate the data and develop the findings of this Asset Management Plan. We are also sincerely thankful to LMCH and City Council for their support.

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Section 1. Executive Summary

1.1: 2025 LMCH Asset Management Plan Overview

The London and Middlesex Community Housing (LMCH) infrastructure system provides safe and affordable housing to low to moderate income households, including families, seniors, adults, and newcomers to Canada, within the City of London and Middlesex County. LMCH is committed to building inclusive communities where safe, affordable, and accessible housing serves as the foundation for positive change. Its strategic vision focuses on being a valued and trusted choice for housing mobility for residents of London.

This Asset Management Plan (AMP) is designed to enhance the management of LMCH's infrastructure assets in a way that strategically connects LMCH, City of London, and community economic and social objectives to day-to-day and long-term infrastructure investment decisions. This is accomplished by:

- Aligning with the regulatory landscape, by meeting the requirements of Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure (O. Reg. 588/17), and positioning LMCH for capital grant funding applications.
- Understanding the current state of the infrastructure systems (value, quantity, age, condition, etc.).
- Measuring and monitoring levels of service (LOS) to quantify how well infrastructure systems are meeting expectations.
- Communicating asset lifecycle management activities (e.g., how infrastructure is operated, maintained, rehabilitated, and replaced).
- Determining the optimal costs and reinvestment rates of the asset lifecycle activities split between those that maintain current LOS and those that achieve proposed LOS.
- Develop a risk-based infrastructure gap financing strategy to support the expenditures necessary for achieving LMCH's approved LOS and associated lifecycle activities.

Based on this analysis, key findings of the 2025 LMCH AMP are:

- There are $1 billion dollars of infrastructure assets under LMCH management.
- Overall, these assets are in Poor condition.
- The cumulative 10-year maintain current LOS gap is approximately $6.36 million, which will maintain assets in Poor condition.
- To achieve a Fair condition LOS, the 10-year cumulative infrastructure gap increases to $34 million.
- To achieve the **proposed LOS of Good condition**, the 10-year cumulative infrastructure gap is $110 million.
- The 2024-2033 average planned budgets, based on the 2024-2027 Multi-Year Budget (MYB), allocate a reinvestment rate of 1.2%. This rate falls well below the recommended reinvestment rates needed to achieve the proposed LOS. A reinvestment rate of 1.4% is required to maintain the current LOS, while a rate of 1.7% is necessary to improve assets to a Fair condition. LMCH is recommending a proposed LOS of Good condition requiring reinvestment rate of 2.5%.

A summary of these results is presented in the following tables and figures:

- Table 1.1 summarizes the infrastructure gaps and presents them as a percentage of LMCH's assets replacement value, presents the reinvestment rates for planned budget, maintain current LOS, and achieve proposed LOS. It also summarizes the expected mitigation of High and Medium risk facility lifecycle requirements within each funding scenario.
- Figure 1.1 summarizes the current overall condition distribution of the assets between those that are in Good to Very Poor condition.
- Table 1.2 provides information on risk mitigation strategies.

Table 1.1 2025 AMP Summary Information

Summary Information	Planned Budget	Maintain Current LOS	Achieve LOS (Fair Condition)	Achieve Proposed LOS (Good Condition)
Replacement Value ($millions)	$1,009	$1,009	$1,009	$1,009
10-Year Infrastructure Gap ($millions)	N/A	$6.36	$34.6	$110.03
Infrastructure Gap as a Percentage of Replacement Value	N/A	0.66%[1]	3.6%[1]	11.4%[1]
Annual Reinvestment Rate	1.2%	1.4%	1.7%	2.5%
Percentage of expected High and Medium Risk Facilities Requirements addressed over 10-year period	55%	62%	72%	100%

Figure 1.1 Overall Current Condition

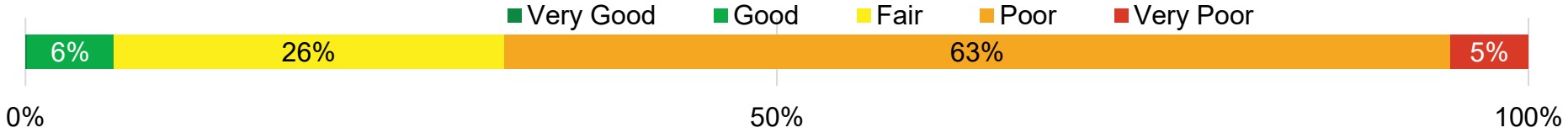


Table 1.2 Risk Mitigation Strategies (Millions)

Risk Mitigation Strategy	High Risk Requirements Addressed	Medium Risk Requirements Addressed	Low Risk Requirements Addressed	Total Requirements Addressed	Percentage of High and Medium Risk Requirements Addressed
Planned Budgets for 2024–2033, based on the 2024-2027 MYB	$44.1	$60.7	$11.2	$116.0	55%
Maintain Current LOS (Poor Condition and Modest Mitigation Strategy)	$49.6	$67.5	$14.9	$132.0	62%
Achieve LOS (Fair Condition and Intermediate Mitigation Strategy)	$55.2	$81.0	$23.8	$160.0	72%
Achieve Proposed LOS (Good Condition and Significant Mitigation Strategy)	$55.2	$135.0	$45.3	$235.5	100%

[1] The Infrastructure Gap to Replacement Value Index measures the ratio of the infrastructure funding gap to the total asset replacement value (excluding land).

1.2: Executive Summary Recommendations

Conclusion

Based on LMCH staff input and asset data, the LMCH AMP is a tactical outcome of LMCH's Asset Renewal team and the City's CAM Program. It outlines LMCH's plan to manage its $1 billion infrastructure portfolio and the necessary investments to maintain current LOS and achieve proposed LOS objectives. While there are no easy solutions to how the entire infrastructure system works together to achieve an optimal delivery of community housing services, this AMP, alongside other LMCH strategic documents, identifies the additional efforts needed to address infrastructure gaps and ensure sustainable service delivery.

The 2024 maintain current LOS funding gap would leave LMCH assets in Poor condition. The achieve proposed LOS funding gap, which includes a portion of the historic backlog as well as targeting the achievement of an overall Good condition, presents a larger challenge. Addressing these gaps is crucial to maintaining effective service delivery.

Key findings:

- Energy efficiency initiatives and climate change objectives are central to LMCH's sustainability efforts.
- The AMP complies with Ontario Regulation 588/17, meeting requirements for July 1, 2024, and July 1, 2025, timelines and aligns with Multi-Year Budgets (MYBs) and Council decisions.

Overall, LMCH has a long-standing practice of pursuing all possible means to achieve service delivery goals and has been reasonably successful delivering quality services.

Recommendations

LMCH ensures sustainable asset management through lifecycle strategies and innovative financing. It remains committed to enhancing tenant placement policies to reduce property damage, extend asset lifespans, and lower maintenance costs, while exploring additional strategies to strengthen its housing portfolio. The LMCH AMP will align with the City of London's Multi-Year Budget, focusing on comprehensive asset inventories, advanced performance measures, and risk-based lifecycle strategies. To address infrastructure gaps, LMCH will explore various approaches, including additional funding sources such as ancillary income, efficiency incentives, third-party contributions, and efficiency-based incentives from external institutions (e.g., Canada Mortgage and Housing Corporation).

LMCH is currently developing a Regeneration Plan for delivery in 2025 to support portfolio growth while enhancing overall asset condition and service levels by replacing aging housing units with modern, cost-effective constructions. A risk mitigation approach will be implemented to allocate funds strategically, prioritizing asset requirements to minimize failure impact, optimize resource utilization, and maintain service delivery. Additionally, LMCH could submit additional investment business cases through the 2028-2031 MYB process to mitigate the growth of the achieve proposed LOS cumulative 10-year infrastructure gap. These initiatives aim to support LOS targets, regulatory compliance, and financial sustainability.

Section 2. Introduction

2.1: Supporting LMCH Goals Through the Corporate Asset Management Program

London and Middlesex Community Housing (LMCH) is a municipally owned Local Housing Corporation (LHC), serving the City of London and Middlesex County. The City of London is LMCH's sole shareholder, and the County of Middlesex is an important funding contributor.

LMCH operates under the terms established by its Articles of Incorporation, Shareholder Declaration, and Accountability Rules as approved by the sole shareholder on June 20, 2011.

LMCH devolved from the Province of Ontario in 2001 and is bound by the Housing Services Act (HSA). LMCH's portfolio currently comprises 32 properties, which contain 3,258 units. Overall, LMCH provides affordable housing and rent-geared-to-income (RGI) housing for more than 5,000 tenants. Most properties within the portfolio are located within the City of London, while some properties are in Middlesex County (see Section 3.1 for LMCH portfolio maps).

Who LMCH Serves

- Family Communities – 834 units and 11 communities
- Senior Communities – 1,219 units and 9 buildings
- Adult Communities – 1,046 units and 12 Buildings
- Scattered – 159 units
- Total – 3,258 units and 32 properties

LMCH strives for acceptable service delivery results based upon LMCH's strategic community and organizational objectives established through the LMCH 2024-2027 Strategic Plan, which outlines the mission, vision, values, and strategic outcomes that guide LMCH in a way that aligns with the core values of the communities it serves.

The City's CAM Program is designed to enhance the management of the infrastructure assets (of the City of London its Agencies, Boards, and Commissions) in a way that connects strategic objectives to day-to-day decisions related to when, why, and how investments are made into infrastructure systems. Like the strategic planning and budgeting processes, this is an iterative process that continuously improves through each cycle. For further information regarding the CAM Program, refer to the City's CAM Policy[2].

This Asset Management Plan (AMP) was developed through the City's CAM Program based on an approved Service Level Agreement between LMCH and the City. By following this development process, the AMP achieves the following:

- Sets out the plan for managing the infrastructure assets to ensure they can provide services at levels that meet the community and Board approved objectives.
- Forecasts the expected impact that the 2024-2027 Multi-Year Budget, inclusive of 2024-2033 capital plan (hereon referred to as "planned budget"), will have on the state of the infrastructure assets.
- Provides an understanding of the changes in lifecycle strategies and associated risks if there are funding gaps between the planned budget and the expenditures required to maintain current levels of service (LOS) or achieve proposed LOS.
- Fulfills O. Reg. 588/17 mandated requirements and maintain eligibility for current and future other levels of government capital funding programs.

[2] CAM Policy https://london.ca/council-policies/corporate-asset-management-policy

2.2: Provincial Asset Management Planning Requirements

In 2015, Ontario passed the 'Infrastructure for Jobs and Prosperity Act', which affirmed the role that municipal infrastructure systems play in supporting the vitality of local economies. After a year-long industry review process, the Province created O. Reg. 588/17 under the *Infrastructure for Jobs and Prosperity Act*. O. Reg. 588/17 further expands on the Building Together guide, mandating specific requirements for municipal asset management policies and AMPs.

This current AMP is being written to meet requirements to review and update LMCH's 2020 AMP at a minimum of every 5years.

For a complete reconciliation and mapping of how this AMP complies with all O. Reg. 588/17 requirements (both July 1, 2024, and July 1, 2025, requirements) see Appendix A. O.Reg.588/17 Asset Management Plan (AMP) Requirements.

2.3: Developing the Asset Management Plan

This AMP is the culmination of efforts from staff across LMCH who are involved with managing infrastructure assets, including finance staff, technical staff involved with planning and executing the construction and maintenance of infrastructure assets, and on-the-ground staff who operate and maintain infrastructure assets. Through this collaborative development process the AMP addresses the following questions:

- What do we own and why?
- What is it worth?
- What condition is it in?
- What are its current and proposed service levels?
- What activities do we employ to manage the assets?
- What does it all cost?

A more modern asset management question is also to ask, "Is this asset providing the community the service it expects and is willing to pay for?"

To answer these questions as best as possible, the CAM Program and this AMP are structured based on several interdependent development strategies.

These development strategies and processes (steps) are categorized as:

- State of Local Infrastructure
- Levels of Service
- Asset Lifecycle Management
- Forecasted Infrastructure Gaps and Financing Strategies
- Discussion
- Conclusion and Recommendation

To enhance readers' understanding of the data and information presented, the following explanations are provided regarding each development strategy's purpose, processes, and results.

2.3.1: State of Local Infrastructure

The State of Local Infrastructure informs the individual and collective needs of LMCH infrastructure assets.

It is important to note replacement values are calculated using best available information to identify all asset costs associated with replacing assets. As such this AMP highlights significant capital financing pressures that exceed the expected funding within the current LMCH 2024–2033 budget plan.

By acknowledging capital financing pressures and considering both current and future challenges, the AMP sets the foundation for strategic infrastructure planning and assists LMCH as it strives to prioritize and address infrastructure needs effectively.

2.3.2: Levels of Service

Asset related LOS are specific parameters that describe the extent and quality of asset related services; they are not an exhaustive presentation of all service levels provided to the community. These LOS link an asset's performance to target performance goals within LMCH's strategic plans, budgets, and other relevant policies and reports. Additionally, in accordance with O. Reg. 588/17 requirements, these LOS are quantified and reported between the costs to maintain current LOS and achieve proposed LOS, which are defined as:

- Maintain Current LOS – is defined as the persistent efforts of an organization to manage its assets through comprehensive lifecycle activities and effectively allocating necessary financial resources with the aim of consistently delivering its services at the current established service levels.
- Achieve Proposed LOS – is defined as the strategic initiatives undertaken by an organization to modify its service levels represented in a new proposed standard of service provision. This could involve modifying the condition, scope, or accessibility of the services beyond their current levels, based on strategic goals (e.g., regulatory requirements, master plans, other Board approved targets, etc.). The achievement of these proposed service levels may require changes in quantity of assets and/or frequency and scope of asset related lifecycle activities.

LOS metrics are organized in a hierarchical manner. At the forefront are the direct LOS metrics, which serve as the primary benchmarks. From these, we can provide clear lines-of-sight to determine the cost to maintain current LOS and achieve proposed LOS. Next in line are the related LOS metrics. These are closely tied to the direct LOS metrics due to their primarily formal relationship. However, pinpointing their associated costs can be more complex.

Overall, LMCH is committed to delivering community services that are accessible, available, cost-efficient, and designed to meet tenant needs. These services aim to ensure tenant satisfaction, uphold environmental stewardship, maintain reliability, and provide a suitable scope to meet community needs. The most important component binding all of these considerations together is tenant satisfaction, and LMCH is committed to seeking capital source funding that will provide LOS resulting in a Good condition of its assets. As shown in Figure 2.1, to obtain a desired LOS, LMCH faces a complex trade-off challenge, which includes three parameters: Cost, LOS, and Risk.

Figure 2.1 Trade-off Cost, LOS, and Risk

2.3.3: Asset Lifecycle Management

LMCH's asset lifecycle management optimizes performance, ensuring assets deliver approved service levels sustainably while minimizing costs and mitigating risks. This section details lifecycle activities, associated risks, and LMCH's approach to strategic investment and risk assessment. By analyzing asset failure likelihood and impact, LMCH optimizes resource allocation to maintain safe, clean, and well-maintained housing.

The AMP evaluates three key lifecycle scenarios:

1. Forecasting asset conditions under the planned budget.
2. Identifying the budget required to maintain current LOS.
3. Determining capital investment needed to achieve various LOS options ultimately resulting in a proposed LOS.

This framework enables informed decision-making and effective investment planning.

2.3.4: Forecasted Infrastructure Gaps and Financing Strategies

This section quantifies infrastructure gaps, representing the difference between required spending to maintain and improve LOS and the available budget over 2024–2033. Ideally, these gaps will shrink as investments improve infrastructure conditions and mitigate risks.

Financing strategies focus on securing sustainable funding for infrastructure-dependent services, integrating long-term financial planning into budgeting. This approach aligns with the 2024-2027 LMCH Business Plan and the 2023-2027 City of London Strategic Plan.

2.3.5: Discussion

The discussion comments on current and future opportunities and challenges associated with addressing infrastructure gaps. This includes consideration of service delivery characteristics, cost pressures, and growth and service improvement planning.

2.4: Conclusion and Recommendation

This section summarizes results and provides commentary on the AMP data accuracy and data reliability. It provides readers transparency of the validity and limitations of the information provided and highlights continuous data improvement plans.

2.5: Assumptions and Limitations

As previously stated, this AMP is designed to enhance the management of LMCH infrastructure assets in a way that connects strategic objectives to day-to-day decisions related to when, why, and how investments are made into infrastructure systems. However, all AMPs are developed within the context of various assumptions and limitations.

The following points summarize the assumptions and limitations of this AMP:

- AMP scope covers directly owned LMCH assets as of December 31, 2023, and associated Planned Budgets for 2024–2033, based on the 2024-2027 MYB.
- This AMP is compliant with the July 2024 and July 2025 requirements of O. Reg. 588/17 in that it includes scenarios for maintaining current LOS and achieving a proposed LOS as well as associated forecasted infrastructure gaps and supporting financing strategies.
- The AMP addresses condition information in three ways:
  - Condition may be technically assessed and reported on in a quantifiable technique. This method is the most accurate and most expensive (e.g. analyzing a comprehensive data base of asset records (stored within LMCH's facilities asset management software VFA) and asset system improvements made over the lifecycle of these assets).

  - Condition may be assumed based on age and estimated useful life; and
  - Finally, condition may be based on the expert opinion of staff using the asset.
- Unexpected events (e.g., severe storms attributed to climate change, pandemics, etc.) will not disrupt infrastructure replacement and renewal projects over the period of analysis.
- The planned budget and expected reserve fund availability, will occur as planned over the 10-year period of analysis.
- Phase 3 of Southdale Regeneration (Reimagine Southdale) is not in scope of this AMP.
- Since LMCH is not eligible for development charge recovery and was not included in the City of London's 2021 Development Charges Background Study, it is assumed that growth needs are addressed through budget and assessment growth funding requests.

Section 3. Detailed Asset Management Plan

3.1: State of Local Infrastructure

3.1.1: Asset Inventory and Valuation

Currently, LMCH owns and maintains a total of 3,258 units over 32 properties with an approximate replacement value of $1 billion. This primarily relates to LMCH Land and Facilities, but also includes a variety of Furniture and Equipment, Appliances, Technology and Communications, Machinery and Equipment, and Corporate Vehicle assets.

Table 3.1 summarizes the assets by type, inventory quantity, and replacement values. The asset replacement values have been identified using LMCH data housed in its facilities asset management software VFA, insurance replacement values and external market expert opinion such as Altus Group. These replacement values aim to capture current market prices for the full replacement of identified assets. Green infrastructure assets, including trees and other natural elements on LMCH properties, are not currently covered in this AMP. However, LMCH owns and maintains these assets across its properties. Expanding future AMP updates to include green infrastructure would promote a more comprehensive and sustainable approach to asset management.

Land

Land includes both surplus land available on existing LMCH sites and land surrounding or under buildings owned by LMCH for operational, residential, or commercial purposes. It is valued at $1 million per hectare based on internal expert opinion.

Facilities

Valued at over $964 million, from a replacement value perspective, LMCH's Housing, Service Buildings and Site Work (the Facilities) represent over 95 percent of assets under management. LMCH has locations across the City of London, Dorchester, Strathroy, Glencoe, Newbury and Parkhill. Locations include multi-residential buildings, townhouse complexes, scattered and clustered detached and semi-detached buildings, and sitework surrounding Housing. There will be a temporary reduction in townhome units at Southdale Rd. and Millbank Dr. as the site undergoes regeneration. The Southdale location will ultimately be upgraded over three phases, resulting in a net new increase of 98 units—comprising 103 remaining townhouses and 163 new apartment units within three newly constructed six-storey buildings. This redevelopment maintains LMCH's obligations as a social housing partner while simultaneously introducing market-based rental units to its asset base. It should be noted that the first of these 3 new buildings will not be part of LMCH's portfolio of assets until mid-year 2025. Figure 3.1 and Figure 3.2 provide an outline of LMCH properties across City of London and Middlesex County, and a more detailed look at London property locations. It is intended to give an 'at a glance' sense of the scope of LMCH's portfolio. The Sitework category includes elements located outside the primary structure but within the property boundaries, supporting the overall functionality, accessibility, and operation of the facility. Examples of sitework include site improvements (such as roadways, parking lots, landscaping, play structures, and fencing) and site utilities (including water, sewage, and electrical distribution systems).

Other Assets

This category includes $1.1 million in technology (laptops, desktops, servers), $44 thousand in furniture (couches, tables), $134 thousand in machinery and equipment, and $3.8 million in appliances (stoves, refrigerators). The fleet includes two cargo vans, with two SUVs added in 2024, not reflected in 2023 values.

Table 3.1 Inventory and Valuation – 2025 Asset Management Plan (AMP) Replacement Value

Asset Type	Asset	Inventory	Unit	Replacement Value (Thousands)
Land	Land pertaining to Housing assets	39.9	Hectares	$39,939
Facilities	Multi-Residential buildings	2,398	Each	$578,333
	Townhouse Complexes	786	Each	$306,689
	Site Work	27	Each	$32,802
	Scattered Detached and Semi-Detached Buildings and Sites	20	Each	$15,042
	Clustered Semi-Detached Buildings and Sites	54	Each	$29,514
	Service Buildings	8	Each	$1,649
Other	Technology and Communications Equipment	Mix	Each	$1,076
	Furniture and Fixtures	Mix	Each	$44
	Machinery and Equipment	Mix	Each	$134
	Appliances	Mix	Each	$3,801
	Corporate Vehicles	2	Each	$110
Total				$1,009,133

Figure 3.1 LMCH – London Locations

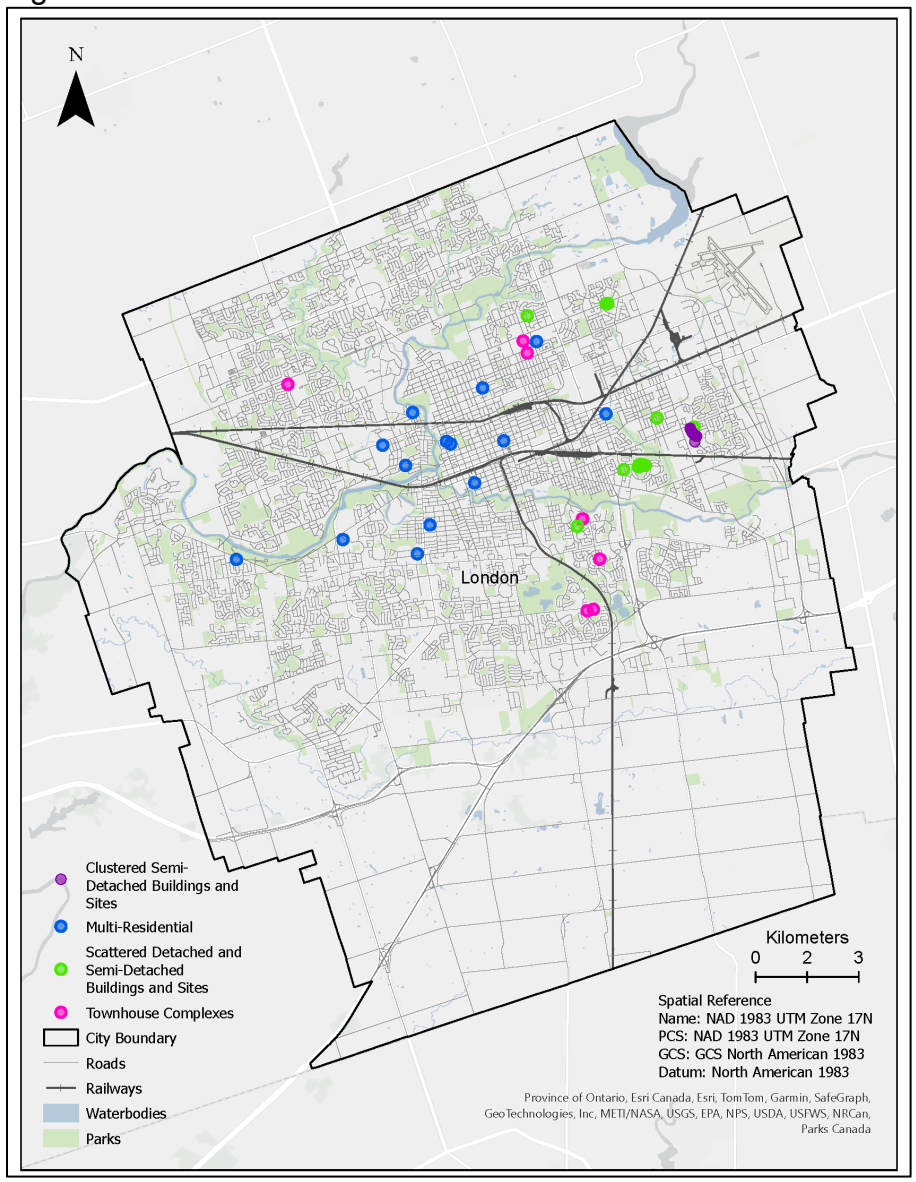
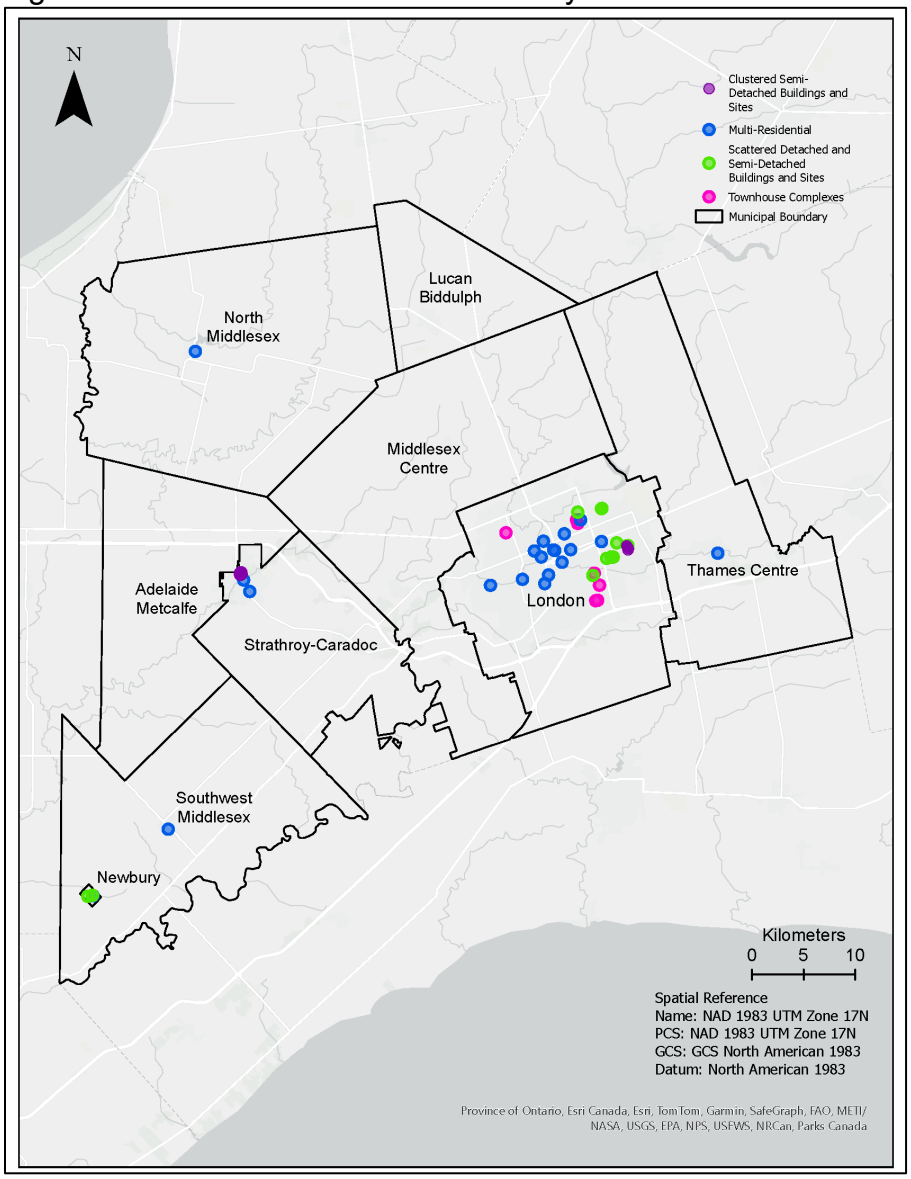


Figure 3.2 LMCH – All Middlesex County Locations



3.1.2: Age Summary

Figure 3.3 shows the LMCH average asset age as a proportion of the average expected useful life. Overall, the data affirms that LMCH assets are beyond their expected useful life. Land age is unknown and thus not listed.

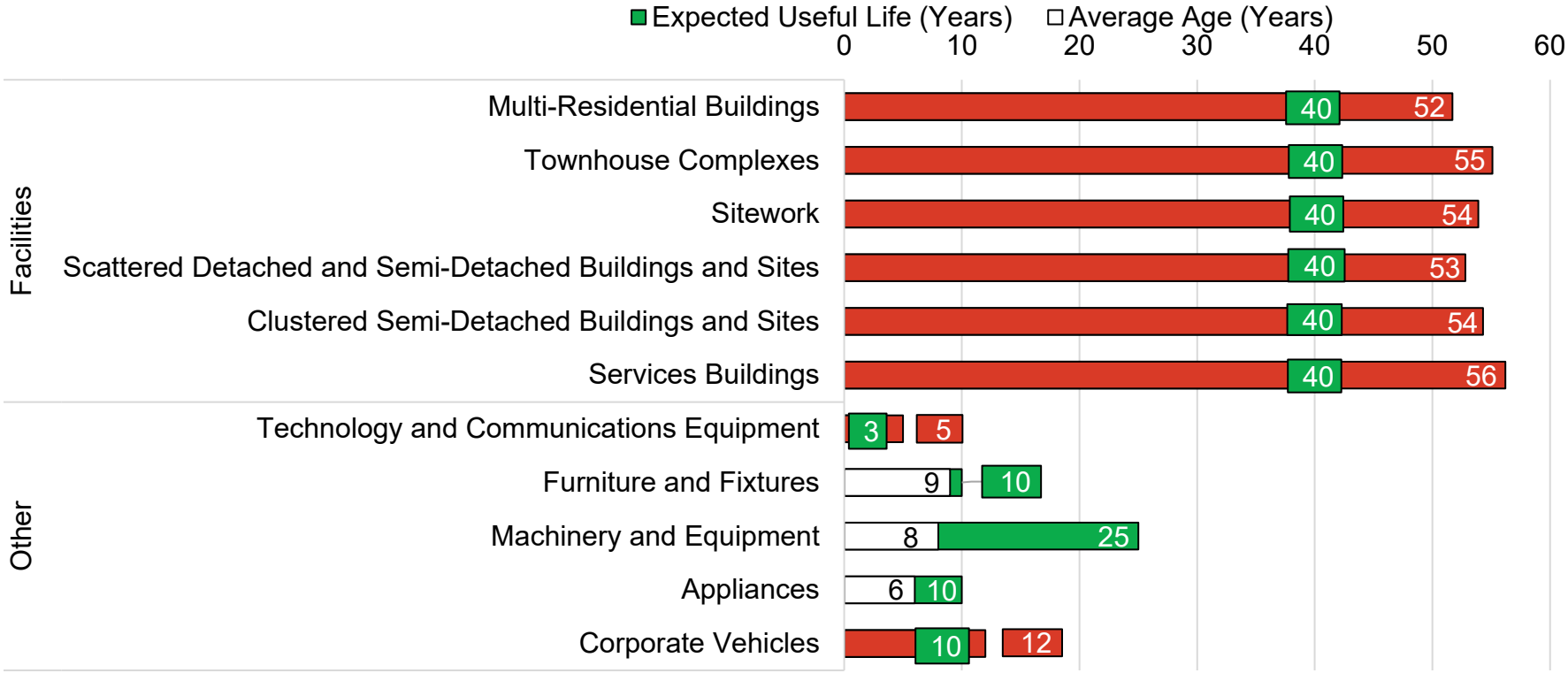
Facilities

The age of the facilities was calculated using historic records within LMCH's VFA asset management software. Overall Housing assets average age ranges from 52 to 56 years, while the generally accepted industry standard expected average useful life for facilities is 40 years based on Canada's Infrastructure Report Card. It is important to note that 40 years was selected as the expected useful life based on the non-structural components of buildings which have the longest expected useful life.

Other Assets

Furniture and Fixtures are nearing the end of their estimated useful life. Corporate Vehicles exceed their lifespan. Machinery, Equipment and Appliances remain within their lifespan. The average age of the technology and communication equipment is 5 years, exceeding the estimated useful life of 3 years. However, it should be noted that most LMCH laptops are less than 3 years old (vintage 2022) while desktops and monitors are older but functioning well.

Figure 3.3 Average Age and Expected Useful Life



3.1.3: Asset Condition

The condition of the assets was determined using one of the three methods below based on data availability and accuracy:

1. Existing condition rating systems (e.g., Facility Condition Index, etc.),
2. Estimated based on age and the remaining expected useful life of the assets, and
3. Estimated based on expert opinion, in the absence of 1 or 2 above, or where there was low confidence that age and expected useful life appropriately represented the asset condition.

Based on these methodologies, asset conditions are recorded on a ratings scale of 1 to 5. Table 3.2 provides the definitions of each condition scale used in the CAM Program and in this AMP. Land condition is not typically assessed and thus not listed.

Table 3.2 Condition and Scale Definitions

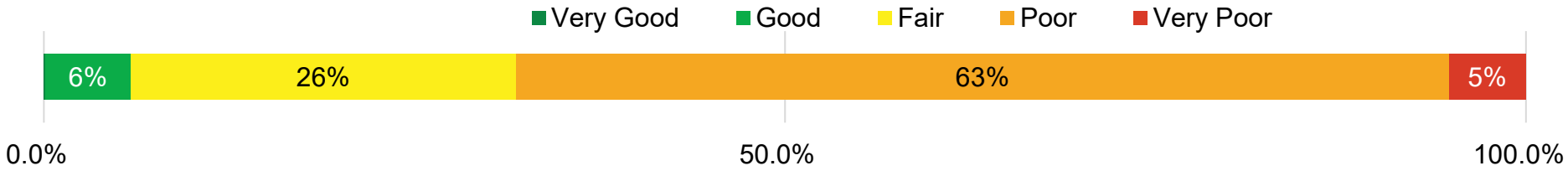
Grade	Summary	Definition
1	Very Good Fit for the future	The infrastructure in the system or network is generally in very good condition, typically new or recently rehabilitated. A few elements show general signs of deterioration that require attention.
2	Good Adequate for now	The infrastructure in the system or network is in good condition; some elements show general signs of deterioration that require attention. A few elements exhibit significant deficiencies.
3	Fair Requires attention	The infrastructure in the system or network is in fair condition; it shows general signs of deterioration and requires attention. Some elements exhibit significant deficiencies.
4	Poor At risk	The infrastructure in the system or network is in poor condition and mostly below standard, with many elements approaching the end of their service life. A large portion of the system exhibits significant deterioration.
5	Very Poor Unfit for sustained service	The infrastructure in the system or network is in unacceptable condition with widespread signs of advanced deterioration. Many components in the system exhibit signs of imminent failure, which is affecting service.
-	Not Assessed	This category is reserved for assets where data is either missing, not updated, or cannot be considered reliable. Flagging this data for LMCH to identify where gaps in information exist and may allow for the development of assessment plans to improve future data.

Figure 3.4 presents the overall condition distribution of all LMCH assets as of 2023. It shows that 32% of the assets are in Fair or better condition, however 68% are in Poor or worse condition. It is important to note this condition profile is only a snapshot in time and not indicative of condition profiles over the next 10 years.

Challenges do exist and are reflected in Multi-Year Budget requests and further described in Sections 3.3 and 3.4. In addition, there are challenges that are beyond scope of a traditional condition profile. For example, CMHC funding includes a greening component such as investing in technology that reduces LMCH's carbon footprint and operating costs simultaneously, while also aligning with the City of London's Climate Emergency Action Plan. While improving asset condition by most often replacing old technology and components, it also addresses climate and environmental concerns and introduces modern practices that align with the size and complexity of LMCH Housing portfolio.

Figure 3.5 provides a detailed condition distribution for Facilities, Technology and Communications, Furniture and Fixtures, Machinery and Equipment, Appliances, and Corporate Vehicle assets.

Figure 3.4 Overall Condition



Facilities

LMCH regularly retains facility experts to perform comprehensive assessments, which informs internal expert opinions on facility condition. The output from this process is the tracking of information in LMCH's VFA asset management software to establish and update industry-standard Facility Condition Indexes (FCI) that reflect the overall condition of the facilities and their sub-components (building envelope, mechanical and electrical systems, etc.). The FCI serves as a standardized metric that compares asset conditions by dividing the cost of lifecycle activities by the asset's current replacement value. This quantifiable measure is instrumental in prioritizing asset renewal and replacement needs. To support clear decision-making, the FCI is categorized using the City of London's facility condition assessment methodology: very good (0%), good (0%–5%), fair (5%–10%), poor (10%–30%), and very poor (over 30%). This structured approach ensures consistency and clarity in evaluating facility conditions. The facilities condition assessments are typically the primary source in identifying the repair, rehabilitation, and/or replacement strategies for each asset. Note the FCI ratings represent the physical condition of the buildings and are not an indication of their ability to satisfy LMCH service delivery (i.e. size, location, ability to accommodate certain types of functions, etc.). The current condition assessment identifies that approximately 32% of Facilities assets are in Fair or better condition while 68% are in Poor or worse condition. In the context of housing provider service delivery, having such a large quantity of facility assets below Fair condition is indicative of a portfolio in need of

significant investment. This document will identify the rehabilitation and renewal tasks needed to keep current Housing functional while the Regeneration of LMCH's portfolio is contemplated.

A detailed assessment of specific assets reveals aging systems that, while still functional, are in poor condition but do not pose an immediate risk of service disruption. For example, 76% of Multi-residential Buildings are in Poor condition. This is due mainly to aged systems such as electrical distribution equipment and elevators that do not represent a life safety risk to tenants yet are in LMCH's capital plan for upgrade and/or replacement. As a result, a balanced capital budgeting approach sees LMCH direct short-term spending to more critical needs deemed to require a Good condition. Additionally, 43% of Sitework is listed in Very Poor condition. But this should also not be alarming as this rating is due mainly to systems such as storm sewers and asphalt parking lots and curbs which are functioning and deemed not critically necessary to replace at this time.

Furniture and Equipment

80% of Furniture and Equipment assets are Fair and above condition, however with 20% of assets in Poor and Very Poor condition suggests reinvestment is required in the short to medium term given these are typically shorter lasting assets.

Machinery and Equipment

100% of these assets are in Fair condition, which suggests reinvestment is required in the medium to longer term.

Appliances

80% of these assets are in Fair and above condition, which suggests reinvestment is required in the short to medium term given these are typically shorter lasting assets.

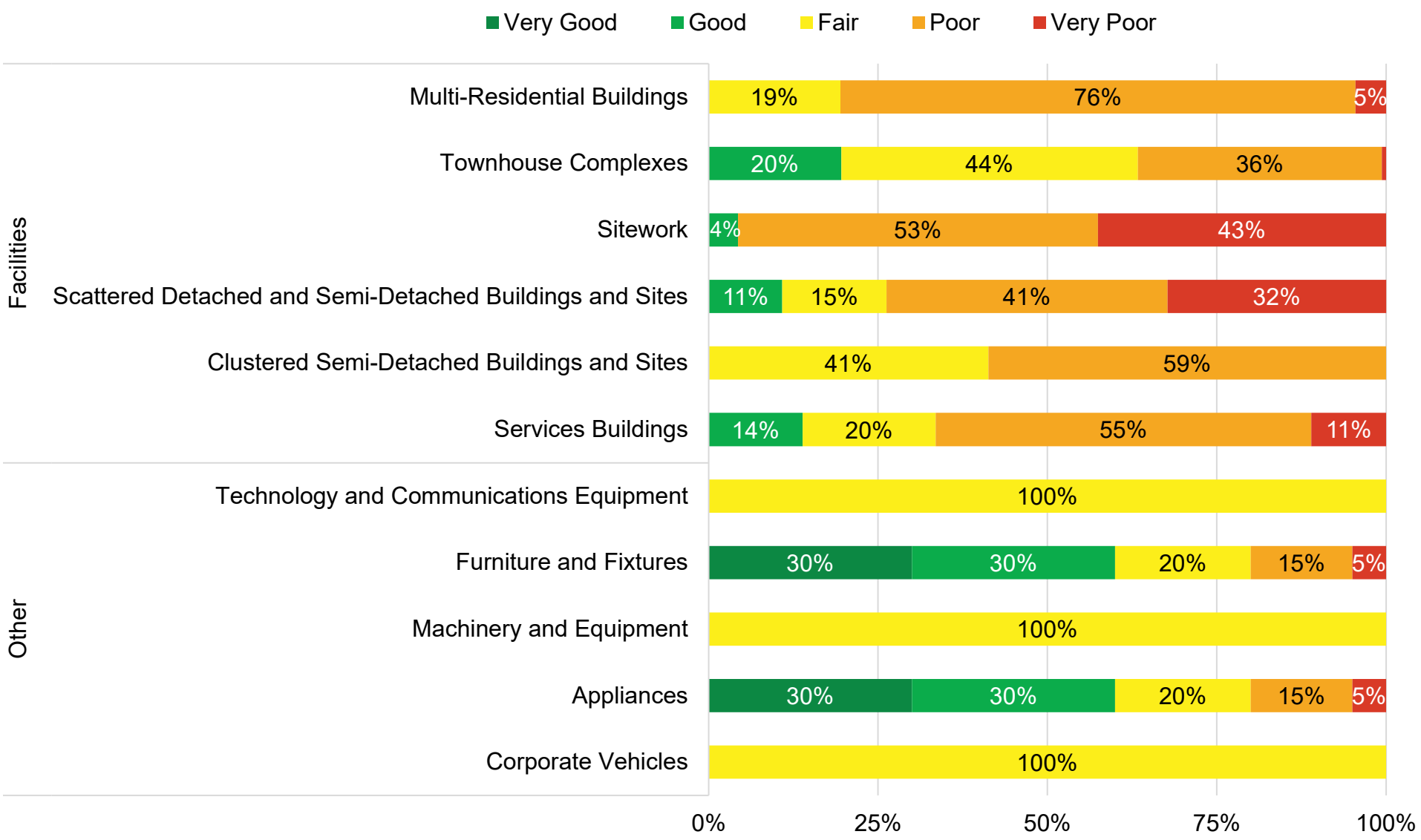
Technology and Communications

100% of these assets are in Fair condition, which suggests reinvestment is required in the short to medium term given these are typically shorter-lasting assets.

Corporate Vehicles

100% vehicle assets are Fair which suggests reinvestment is required in the medium to longer term.

Figure 3.5 Asset Condition Detail



3.2: Levels of Service

Asset management LOS link strategic plans and budget/service delivery objectives to corresponding asset performance metrics. As such this AMP strives for LOS performance measures linked to:

- LMCH 2024-2027 Strategic Plan,
- 2023-2027 City of London Strategic Plan,
- 2024-2027 Multi-Year Budget.

These LOS foundations guide the establishment of customer service delivery values (herein referred to as "customer values"), which in turn guide the development of overarching AMP LOS objectives. Informed by these objectives, LMCH and CAM staff collaborate to formulate effective metrics that can be linked to asset performance. Table 3.3 lists the LOS customer/Tenant value definitions created through this development process.

Table 3.3 Customer/Tenant Values Definition

Customer/Tenant Value	Corporate Definition and Description
Accessible	Service is accessible by the community, not exclusive, it is inclusive to those who wish to/may use the service to the greatest extent possible, regardless of age, ability, etc. Includes metrics related to asset accessibility and legislated requirements. For example, *Accessibility for Ontarians with Disabilities Act* (AODA).
Availability	Availability ensures minimal downtime and timely readiness of housing units for tenants, emphasizing prompt access to LMCH housing. For instance, residential units average *Turnaround Duration*—from the departure of one tenant to the readiness for the next—focuses on efficient transition to maintain consistent service availability.
Environmental Stewardship	Service is provided in a means that considers, controls, or reduces impacts to the environment. Includes metrics related to the assessment of service provision based on environmental stewardship and sustainability practices. Examples include annual monitoring of utility usage by square footage of facility spare, or fuel consumption-based greenhouse gas emissions.
Cost Efficiency	Presents service area budgets, and where possible measures financial performance in terms of providing the maximum service outcomes (more output for less cost) out of the available operating and capital budgets. Examples include annual cost to provide the service, asset lifecycle budget as a percentage of current replacement value.
Customer/Tenant Satisfaction	Service is satisfactory/meeting expectations from the perspective of a tenant or community. Includes a variety of metrics that cover the performance of a service based on tenant experiences. Metrics consist of descriptions from tenant surveys and the like. Example includes percentage of tenants satisfied with assets or service delivery.
Reliability	Service is fit for its purpose. Includes metrics related to the reliability of services such as condition of assets.
Scope	The service is extended to/covers a defined range, or description of the range of service provided through municipal infrastructure assets. Includes, among other measures, maps of the user groups or areas of the municipality that have availability of municipal services, are connected to the municipal water system, or have fire flow access, etc..

The LOS metrics were developed by building upon those established in the 2020 AMP. These metrics were comprehensively reviewed by LMCH, resulting in the addition of several new metrics while discontinuing others deemed less effective. However, establishing LOS metrics that meaningfully link to decision-making, and cost requires a sustained, long-term commitment to continuous improvement. Moving forward, LMCH will focus on refining and enhancing LOS metrics, aligning them with asset performance, cost implications, and partners' priorities.

Direct and Related LOS

Selected LOS metrics are organized in a hierarchical manner. Direct LOS metrics are the primary benchmarks. From these direct LOS metrics, LMCH can readily determine the cost to maintain current LOS and achieve proposed LOS. Next are the Related LOS metrics, which are closely tied to the Direct LOS metrics but in some cases cannot be readily costed. After review with LMCH staff, the Direct LOS metrics considered most representative of asset-performance and able to be costed over a 10-year projected period (2024-2033) are documented as in Table 3.4, and the support related LOS metrics are documented in Table 3.5.

3.2.1: Direct Levels of Service

Table 3.4 Direct Levels of Service

Customer/Tenant Value	Focus	Service Performance Measure	2023 Performance	Proposed Target (2024 to 2033)
Cost Efficiency	Tenant	Overall reinvestment rate of Capital funded assets	1.2%	2.5%[3]
Environmental Stewardship	Technical	Annual electric energy consumption kilowatt-hour per square foot for the high-rise	8.49 kWH/sf	Positive Downwards
	Technical	Annual natural gas consumption cubic meters per square foot for the high-rise	1.04 m^3/sf	Positive Downwards
	Technical	Annual water consumption cubic meters per square foot for the high-rise	0.19 m^3/sf	Positive Downwards
Reliability	Technical	The average assessed Buildings Portfolio FCI score	14%	2.5%[4]
	Tenant	Overall assets in Fair or better condition	31%	64%
	Technical	Percentage of High Priority Requirements	21%	0%
Customer/Tenant Satisfaction	Tenant	Percentage of Work orders (WO) completed within categorical maximum Response Times	98%	More than 90%
Scope	Tenant	Current Total Vacancy rate	2.7%	Less than 3%

[3] The 2.5% capital reinvestment rate is based on analysis to achieve a proposed LOS of overall Good condition
[4] The 2.5% Facility Condition Index represents the average rate for Good condition, noting that 2.5% target is an improvement over the 2023 performance of 14%.

3.2.2: Related Levels of Service

Table 3.5 Related Levels of Service

Customer /Tenant Value	Focus	Service Performance Measure	2023 Performance
Availability	Technical	Turnaround Duration (Days) – Non AODA units – from: “Confirmed Vacant” to “Confirmed Ready”	111 days
Accessibility	Technical	Number of Housing units that are modified for accessibility	449
Reliability	Technical	Percentage of Facilities assets in Fair or better condition	31%
Reliability	Technical	Percentage of Technology and Communications equipment assets in Fair or better condition	100%
Reliability	Technical	Percentage of Furniture and Fixtures assets in Fair or better condition	80%
Reliability	Technical	Percentage of Machinery and Equipment assets in Fair or better condition	100%
Reliability	Technical	Percentage of Appliances assets in Fair or better condition	80%
Reliability	Technical	Percentage of Corporate vehicles assets in Fair or better condition	100%

3.3: Asset Lifecycle Management

3.3.1: Asset Lifecycle Management Activities

The asset lifecycle management activities are the range of actions – funded through the operating and capital budgets – that are practiced on the assets. Asset lifecycle activities are generally grouped into the categories shown in Table 3.6.

Table 3.6 Definitions for Lifecycle Activities

Activities	Description
Non-Infrastructure Solutions	Actions or policies that can lower costs or extend useful lives.
Maintenance	Including regularly scheduled inspection and maintenance or more significant repairs and activities associated with unexpected events.
Renewal/Rehab	Significant pre-planned repairs designed to extend the life of the asset.
Replacement/Construction	Activities that are expected to occur once an asset has reached the end of its useful life and renewal/rehab is no longer an option.
Disposal	Activities associated with disposing of an asset once it has reached the end of its useful life or is otherwise no longer needed by the corporation.
Service Improvement	Planned activities to improve an asset's capacity, quality, and system reliability.
Growth	Planned activities required to extend services to previously unserved areas – or expand services to meet growth demands.

3.3.2: Asset Lifecycle Management Strategy

LMCH employs a combination of lifecycle management activities to maintain the current LOS while striving to minimize costs based on defined risk thresholds. This strategy encompasses maintenance, rehabilitation, replacement and construction, disposal, and regular investments aligned with strategic plan priorities, while preparing for the introduction of service improvements. For example, as a non-infrastructure solution, LMCH has implemented a Non-smoking Policy which extends the life of surface finishes (paint) as well as reducing the risk of fire damage.

Where feasible, LMCH further optimizes lifecycle activities by coordinating and synchronizing efforts across multiple assets or asset categories, which enhances cost and service delivery efficiencies. For significant asset investments, LMCH focuses on optimizing asset utilization and minimizing redundant capacity through the application of risk-benefit-cost analyses and cost-effectiveness evaluations. For example, boiler systems may have redundant capacity based upon size of system and inherent risk of failure. This strategy is dynamic and continuously refined.

Lifecycle activities are periodically reviewed and adjusted based on ongoing industry benchmarking, staff training, professional networking, service evaluations (including customer/tenant feedback), expert consultant recommendations, and iterative improvements derived from pilot programs and scenario testing.

Table 3.7 lists specific asset management practices or planned actions LMCH conducts for each lifecycle activity; however, it is not an exhaustive list of all practices undertaken.

Table 3.7 Current Asset Management Practices or Planned Actions

Activity	Specific Asset Management Practices or Planned Actions
Non-Infrastructure Solutions	**Facilities** • LMCH maintains facilities delivered via a specialized team, condition assessments, and facilities management tools to address lifecycle needs, for buildings systems and components. • Key initiatives include developing an AMP - reviewing its implementation progress and aligning strategies with shareholder permissions for financial and operational flexibility. • Enhanced social supports, improved tenant placement, and better services aim to reduce behavioral issues, property damage, and neglect. • Adopt a mixed-income model (including market-based rental units), integrate diverse tenant profiles, and stabilize communities through social supports, programming, and partnerships. **Other Assets** • Monitor and track the condition, usage, and maintenance needs of furniture, equipment, appliances, and vehicles using inventory systems to optimize functionality, cost efficiency, and resource allocation. • Conduct regular safety inspections and compliance checks for machinery, equipment, and vehicles to mitigate risks, ensure reliability, and align with regulatory standards. • Plan proactive replacements for appliances, vehicles, and other assets based on condition, energy efficiency, and warranties to reduce downtime and avoid emergency repairs.
Maintenance	**All LMCH Assets** • LMCH employs scheduled preventative maintenance programs, regular inspections, and tenant/partners feedback to proactively address repair needs and maintain key assets. • Maintenance activities include planned and reactive tasks, with incidents logged to minimize downtime and extend asset life. • Efficient systems, including work order management and IT tools, support service requests, decision-making, and validated charge-back processes for tenant-related damages.
Renewal/ Rehabilitation	**All LMCH Assets** • Extend asset life with cost-effective treatments, ensuring rehabilitation remains cheaper than replacement. • Use preventative measures, such as moisture control, to reduce deterioration. • Perform updates that extend asset life including treatments such as roof patching • Ensure robust project management practices to enhance quality in the delivery of capital renewal projects. • Prioritize maintenance and timely replacement for equipment and IT assets over rehabilitation.
Replacement/ Construction	**Facilities** • Conduct condition assessments to determine lifecycle renewal needs and timing. • Replace major components like roofing and windows at the end of their useful life or with high failure risk. • Perform risk management to prioritize needs and select projects within budget.

Activity	Specific Asset Management Practices or Planned Actions
	• Focus capital investment on high-priority replacements with no remaining life or high risks. • Ensure projects are cost-effective through detailed design and analysis and robust project management practices to enhance quality in the delivery of capital construction projects. **Other assets** • Assess optimal asset lifecycles to determine cost-effective replacement timing, minimizing maintenance costs and maximizing salvage value when applicable. • Replace assets, including vehicles, equipment, and technology, at the end of their useful life or when operational risks arise.
Disposal	**All LMCH Assets** • Dispose of assets responsibly in line with procurement policies, regulations, and environmental standards, prioritizing cost-effectiveness and maximizing salvage value. • Non-core assets may be sold with Service Manager approval if economically beneficial, using proceeds for new developments and regeneration of existing assets, while thorough research ensures informed disposal decisions. **Other Assets** • Conduct lifecycle analyses for corporate vehicles to optimize salvage values and utilize labor resources to enhance resale value, leveraging COL Fleet Services for efficient management. • Dispose of end-of-life IT assets securely through certified electronic recyclers, ensuring data security by wiping or destroying hard drives before disposal.
Service Improvement	**All LMCH Assets** • Enhance asset performance and service delivery by adopting advanced technologies, engaging stakeholders, and implementing strategic service review recommendations to reduce costs and mitigate risks. • Encourage staff training, collaboration with other Local Housing Corporations (LHCs), and partnerships with industry experts to stay informed on innovative practices, aligning improvements with corporate goals. • Gather user feedback and develop strategic plans with short- and long-term goals to modernize technology service delivery and improve IT performance.
Growth	**All LMCH Assets** • Expand housing availability through sustainable construction, repurposing surplus land, retrofitting existing units, and acquiring or converting properties, while aligning development with market demand and tenant needs. • Collaborate with shareholders, partners, funding agencies, and private developers to secure resources, streamline projects, and implement robust project management to ensure cost-effective, timely, and sustainable growth.

3.3.3: Risk Management

General Approach

Effective asset management practices are essential for optimizing the lifecycle of LMCH infrastructure and ensuring sustainable service delivery. However, these practices are not without risks, which can arise from a variety of factors, including inaccurate assumptions, unforeseen events, and shifting economic or regulatory conditions. This section provides a detailed examination of the specific risks associated with various asset management activities, ranging from non-infrastructure solutions to maintenance, renewal, replacement, and disposal. By understanding these risks, LMCH can better anticipate challenges, develop proactive mitigation strategies, and ensure the effective allocation of resources to maintain the reliability and performance of our assets over time. Table 3.8 lists specific risks associated with asset management practices or planned actions by lifecycle activity for all asset types; however, it is not an exhaustive list of all associated risks.

Table 3.8 Risks Associated with Asset Management Practices or Planned Actions

Activity	Specific Risks Associated with Asset Management Practices or Planned Actions
Non-Infrastructure Solutions	• Limited responsiveness from the shareholder in providing requested changes, leaving foundational issues unaddressed. • Poor-quality asset data, incorrect planning assumptions, and changing regulatory requirements create misaligned strategies and compliance challenges. • Economic fluctuations, such as inflation, increased tariffs of imported building components, or market downturns, resulting in budget shortfalls or resource allocation challenges. • Climate change, adverse weather, and emergencies divert funds and disrupt original plans, impacting resource availability and priorities.
Maintenance	• Inconsistent building Key Performance Indicator (KPI) reporting due to potential biases, improper tracking of results, or ineffective use of collected data. • Balancing planned maintenance activities with the need to respond to unplanned, urgent maintenance requests, creating scheduling and resource challenges. • Insufficient capacity and/or inadequate resources to manage a surge of planned and unplanned, urgent maintenance work requests.
Renewal/ Rehabilitation	• Rehabilitation efforts may fail to achieve expected benefits due to incorrect assumptions, design specifications, or unrealistic expectations regarding asset life extension. • High rehabilitation costs or incorrect assumptions about improvements in asset useful life can make replacement more economical and misalign lifecycle planning.
Replacement/ Construction	• Cost overruns during large, complex design and construction projects due to unforeseen challenges, inadequate initial estimates, or delays in execution. • Reduced service and maintenance at the end of an asset's life increases the risk of critical failures, potentially affecting tenant safety and service continuity.

Activity	Specific Risks Associated with Asset Management Practices or Planned Actions
	• Poor-quality design, incorrect equipment specifications, inadequate project administration, or significant scope changes, leading to compromised functionality, increased costs, and delays in project completion.
Disposal	• Disposal processes may be mishandled or incur unexpected or underestimated costs. • Timing for replacements has an operational impact. Delaying or holding inventory requires storage and can adversely affect the function and value of the retiring asset.
Service Improvement	• Service improvement initiatives are either unnecessary or incorrectly assessed, resulting in resource misallocation or failure to address the actual needs of tenants or the organization. • Inconsistent reporting of KPIs due to potential biases, improper tracking mechanisms, or ineffective utilization of data for driving meaningful improvements.
Growth	• Incorrect growth assessments may lead to an overabundance or underabundance of assets, misaligning supply with demand. • Insufficient or excess funding to construct or acquire new assets, resulting in resource inefficiencies or project delays. • Project costs exceed budgets, and timelines are extended beyond projections, impacting financial and operational planning.

Risk Management

Investment prioritization is essential for LMCH, given its fiscal constraints. This process strategically focuses on investments aligned with the organization's values, mission, goals, and financial realities. LMCH's strategic plan outlines five priorities that balance maintaining and improving housing stock with enhancing organizational capacity, effectiveness, and sustainability. To maximize the maintenance and improvement of the housing stock, key relationships must be considered:

1. Priority investment should focus on building systems that impact critical services for the most tenants, particularly central systems in high-rise buildings.
2. Critical systems, such as life safety and HVAC, should receive top priority for investment.
3. Some components, like interior paint or cabinetry, can last beyond their expected lifespan with minimal impact if they fail. These components should be used until they fail.
4. Prioritizing investment in critical systems that affect many tenants reduces operational challenges by preventing frequent or catastrophic system failures.
5. Consideration should be given to the building demographics and tenants' ability to use short-term solutions (e.g., using stairs during elevator shutdowns).

Given fiscal constraints, strategic decision-making must include a comprehensive risk evaluation for effective lifecycle renewal planning. This ensures renewal actions align with LMCH's priorities, enabling informed decisions on repairs, rehabilitation, or replacements within the housing portfolio. By focusing on the likelihood and consequences of system failures, LMCH can maximize its investments, optimize resources, and maintain

critical services, ensuring tenant needs are met and enhancing the sustainability of housing facilities.

Likelihood of Failure Criteria

This refers to the likelihood of a building system or component failing to perform its intended function as designed. Some components may surpass their estimated useful life but continue to operate effectively, posing a low likelihood of failure. Conversely, critical components like electric transformer have a significantly higher likelihood of failure once their useful life has been exceeded. Requirements were numerically evaluated for their likelihood of failure using the scale in Table 3.9.

Table 3.9 Likelihood of Failure Score and their Description

Likelihood Score	Description
1 - Low	Non-critical systems with minimal chance of malfunction under normal conditions
2 - Medium	Systems with moderate complexity and occasional potential for operational disruptions.
3 - High	Systems with high operational complexity and a propensity for frequent malfunctions.

Consequence of Failure Criteria

This refers to the consequences associated with a building system or component failing to perform its intended function as designed. The impact of such failures varies based on the criticality of the component and its role in the overall system. For instance, the failure of non-critical components, such as interior doors, may result in minimal disruption or inconvenience, posing low consequences of failure. Conversely, the failure of critical components, such as boilers, can lead to severe operational disruptions, safety hazards, or significant costs, thereby posing high consequences of failure. Requirements were also numerically evaluated for their consequence of failure using the scale in Table 3.10.

Table 3.10 Consequence of Failure Score and Descriptions

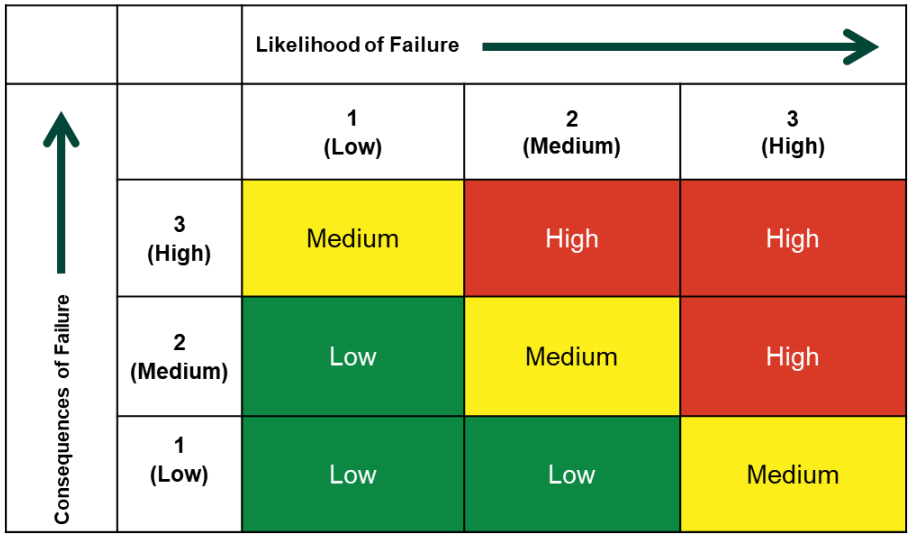
Consequences Score	Description
1 - Low	Minimal service delivery affects, no or very minimal legal and/or regulatory issues, minimal reputational scrutiny or environmental impacts
2 - Medium	Direct service delivery impacts, presence of legal and/or regulatory issues, some reputational and/or environmental harm
3 - High	Direct and significant service delivery impacts, substantial legal issues and certain, serious regulatory violation, reputational and environmental harm

Risk Score calculation

The risk score is calculated by combining likelihood and consequence ratings, each assigned a value on a 3-point scale: Low (1), Medium (2), and High (3). This scoring system categorizes risks into low, medium, and high levels, guiding prioritization efforts and resource allocation. A combination of low likelihood with a high consequence of failure results in a medium risk, while a high likelihood paired with high consequences generates the highest risk. Conversely, a low likelihood and low consequence combination produces the lowest risk.

The results are visualized using a 3x3 risk matrix as seen in Figure 3.6, where the horizontal axis represents likelihood, and the vertical axis represents consequences.

Figure 3.6 Risk Assessment Matrix



Risk Categorization: High, Medium, and Low

10-year requirements totaling $258.3 million were identified using the VFA software. These requirements were determined through two primary mechanisms. Staff inspection identified requirements based on critical factors such as building code non-compliance, life safety concerns, hazardous materials, and accessibility issues. Additionally, lifecycle-triggered requirements were identified, reflecting the expected elements deterioration.

LMCH's subject matter experts, with extensive industry experience and deep asset knowledge, reviewed the requirements. Using the structured risk assessment framework, each requirement was scored based on failure likelihood and consequences, enabling categorization into High, Medium, and Low priority levels. Table 3.11 presents the three priority categories used for risk categorization of facilities' requirements, along with their descriptions and representative examples.

Table 3.11 Facilities Priority Categories Descriptions

Priority	Description	Example
High	These requirements are critical and central to the building's operation. They are predominantly found in large buildings and have a significant impact on overall functionality. High-risk requirements should be replaced proactively within their useful life period rather than allowed to run to failure.	**Lone elevator in a high- rise, seniors building:** This requirement meets the critical need for access throughout the building. It is within a multi-residential building that houses seniors who more frequently have mobility challenges. There may be no secondary elevator.
Medium	These requirements are very important to the building's operation but are not critical. They are typically located in multi-residential buildings. Replacement should occur at the end of their useful life, but no later, to maintain effective building operations.	**A hot water heater in a high- rise building:** Failure of a hot water heater negatively affects the buildings operation, but not in foundational ways, (i.e. tenants still have access to water).
Low	These requirements have a localized impact in the event of failure, often limited to a single floor or a small number of units. They provide services that are non-critical to the overall functionality of the building; however, they enhance aesthetics, user satisfaction, and comfort. By improving visual appeal and functionality, they support tenant quality of life and well-being while maintaining a positive perception of the facility.	**Storm Sewer Catch Basin Renewal:** The failure of this system impacts a limited number of tenants, highlighting its localized significance. While the system provides important functionality, its effects are not critical to the broader operation of the building. **Interior Doors:** Elements are unit-specific, with failure having no impact on other tenants or units. If they remain functional and meet regulatory requirements.

Based on the risk analysis and scoring, Table 3.12 provides a breakdown and categorization of the requirements into high, medium, and low priority levels and the percentage of requirements which they address. This approach helps narrow the focus on where investments should be prioritized., Generally, low-priority requirements are completed on a reactive basis as they fail; however, it is important to recognize that some low-priority requirements, such as replacing kitchen countertops or repainting interiors, may be categorized as low risk in terms of operational impact.

However, these improvements significantly influence the quality of life for tenants. Enhancing aesthetics and functionality can boost tenants' mood, emotional wellness, and psychological well-being, contributing to a more positive living environment.

Table 3.12 Priority Categories of Facilities Requirements

Priority	10 years Requirements ($Millions)	Percentage of the total Requirements
High	$55.2	21%
Medium	$135	52%
Low	$68.1	26%
Total	$258.3	100%

3.3.4: Lifecycle Management Scenario Forecasts

General Approach

The general approach to forecasting the cost of the lifecycle activities required to maintain the current performance of the LOS metrics is to ensure that the proportion of assets in Fair or better condition remains relatively stable. Staff then consider the optimal blend of each lifecycle activity to achieve the lowest lifecycle cost management strategy, balancing costs with the forecasted changes in the condition profile of each asset type.

As part of its broader asset management strategy, LMCH is actively pursuing initiatives that enhance energy efficiency and climate resilience within its Lifecycle Management activities. These initiatives include:

- Energy retrofits to improve building performance.
- Facility upgrades to enhance operational efficiency.
- Advanced Energy Management Systems to reduce environmental impact.

With dedicated funding for these projects, LMCH demonstrates its commitment to sustainability while delivering improved services aligned with climate action goals.

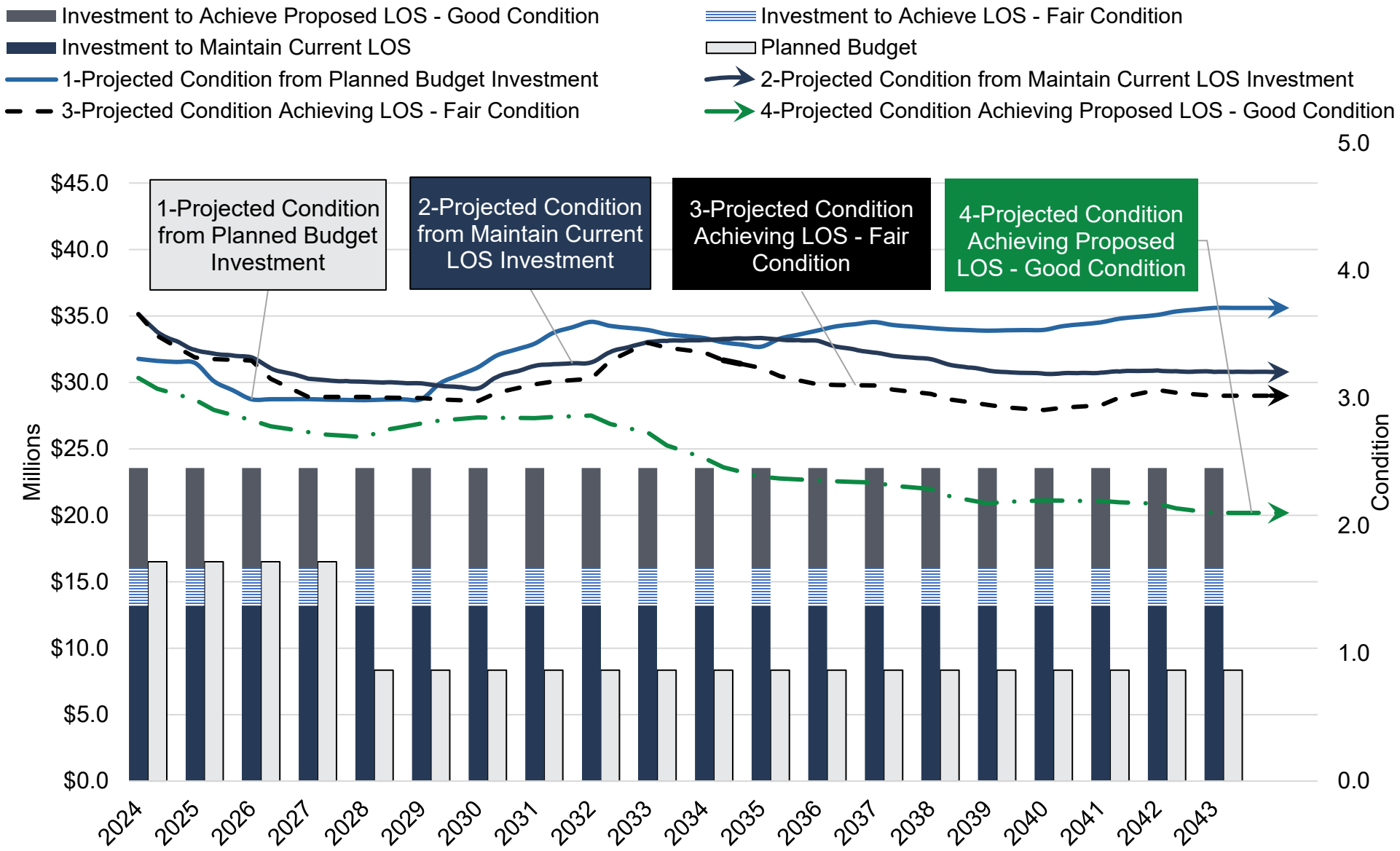
Using this methodology, four lifecycle management scenarios are examined, though the proposed LOS approach could explore multiple scenarios to assess the required investment for achieving various performance targets. Each scenario outlines the operating, renewal (inclusive of replacement, rehabilitation, and disposal), service improvement, and growth funding requirements as seen in Table 3.13 to Table 3.16.

These scenarios are defined as:

1. **Scenario One - Planned Funding** – Reflects the planned budgets for 2024–2033, based on the 2024-2027 MYB. The planned budget contains additional funding from the CMHC Co-investment which ends in 2027.
2. **Scenario Two - Maintain Current LOS** – Estimates the investment required to maintain current LOS performance.
3. **Scenario Three - Achieve LOS (Fair Condition)** – Targets maintaining assets at an overall Fair condition. This scenario provides a financial framework for sustainable asset management but may provide challenges in tenant satisfaction.
4. **Scenario Four - Achieve Proposed LOS (Good Condition)** – This scenario aims to elevate asset conditions to an overall Good rating, supporting a higher level of service.

For more details, refer to Appendix B, which provides a comprehensive breakdown of the financial data and their sources. Figure 3.7 illustrates the projected condition of LMCH Facilities assets based on four scenarios. The figure presents the planned budget, the required investments to maintain the current LOS, the required investments to achieve LOS of Fair condition, and the required investments to achieve proposed LOS target of Good condition, and the projected condition under each scenario. Each scenario is further explained in the following sections.

Figure 3.7 Service Projected Service State of Four Funding Scenarios (Facilities Assets Only)



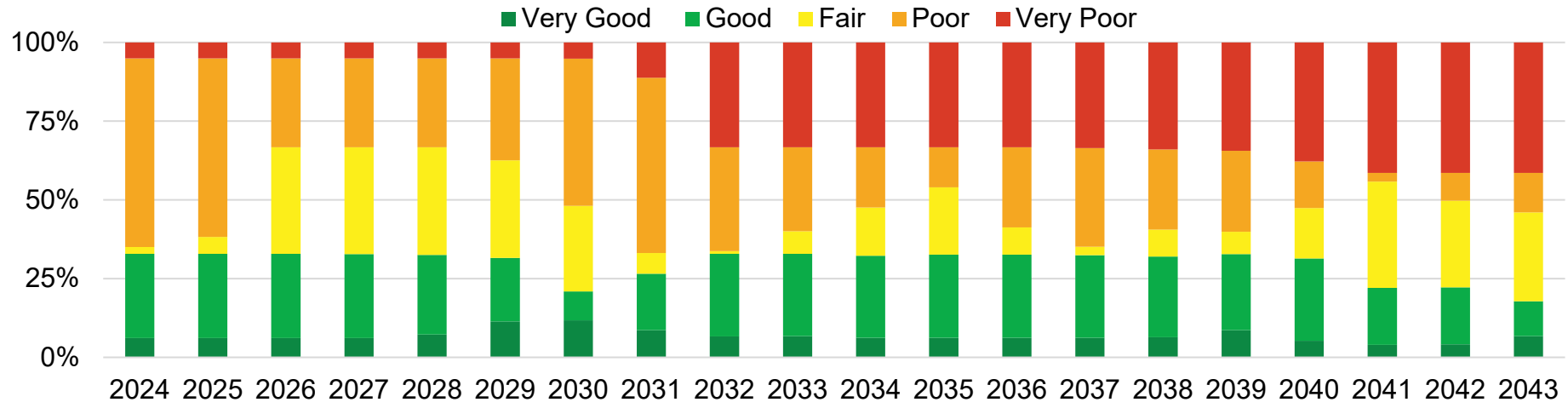
A. Scenario One: Planned Budget

LMCH planned funding is summarized in Table 3.13. This scenario presents the budget constrained to the current level of planned expenditures. If there is insufficient budget in any particular year to complete a rehabilitation or replacement activity on an asset that has reached its minimum condition threshold or expected useful life trigger, then the asset remains in a Poor or Very Poor condition state until there is sufficient budget in a future year to complete the lifecycle activity. Figure 3.8 presents the expected condition profile for the next 20 years based on the current available budgets for LMCH assets. This scenario indicates the condition profile trending to most assets ranging from Fair, Poor, to Very Poor condition.

Table 3.13 Scenario One –Total Planned Budget (Thousands)

Activity Type	Total Planned Expenditure	Planned Funding Relating to Maintain Current LOS[5]	Incremental Planned Funding Relating to Achieve LOS	Total Planned Funding
Operating	$31,484	$31,484	None identified	$31,484
Renewal, Replacement, Rehabilitation, Disposal	$116,089	$116,089	None identified	$116,089
Service Improvement	$69,269	None identified	$69,269	$69,269
Growth	None identified	None identified	None identified	None identified

Figure 3.8 Current Budget Project Condition Profile (Facilities Assets Only)



[5]Planned funding relating to maintain current LOS includes previous years' unspent capital budget amounts.

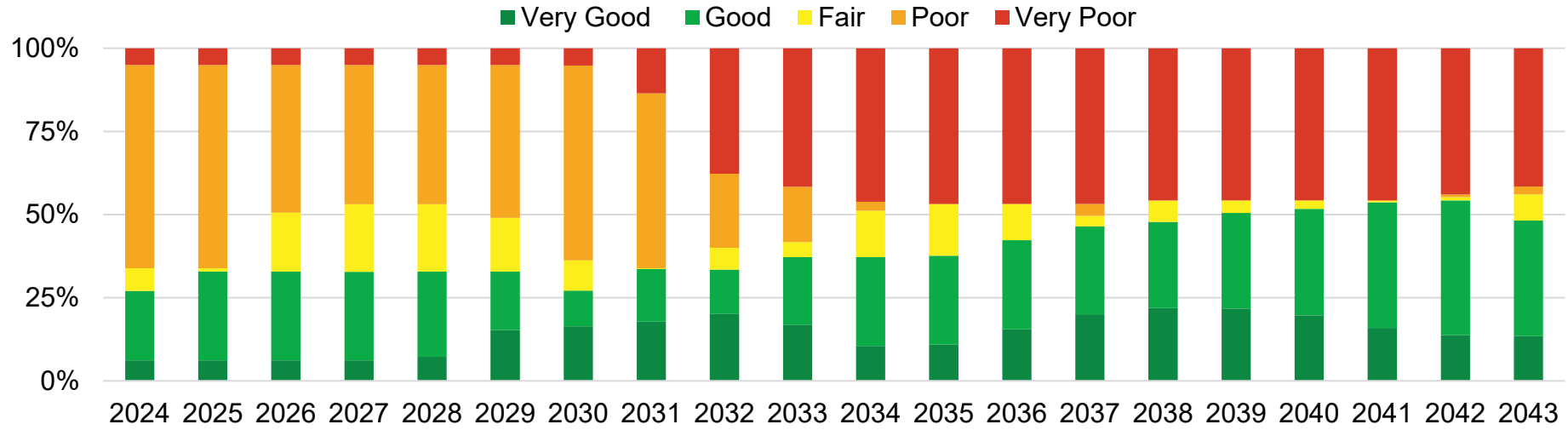
B. Scenario Two: Maintain Current LOS

The cost to maintain current LOS are summarized in Table 3.14. This approach forecasts the lifecycle activities that are required to maintain the current performance of the LOS metrics. The analysis considers the current age and condition of assets along with the expected useful life age triggers for rehabilitation and replacement activities to forecast the funding requirements into the future. Based on this analysis, Table 3.14 identifies a 10-year infrastructure gap of $6.4 million if LMCH is to maintain current LOS. Figure 3.9 shows LMCH facilities forecasted condition profile expected from the maintain current LOS funding. It indicates assets will be primarily in Fair to Poor condition.

Table 3.14 Scenario Two - Total Cost to Maintain Current LOS (Thousands)

Activity Type	Cost to Maintain Current LOS[6]	Planned Funding[7]	Additional Reserve Fund Drawdown	Maintain Current LOS Infrastructure Gap
Operating Budget	$31,484	$31,484	None identified	None identified
Renewal, Replacement, Rehabilitation, Disposal	$139,154	$116,089	$16,701	$6,364
Service Improvement	None identified	None identified	None identified	None identified
Growth Activities	None Identified	None Identified	None Identified	None Identified

Figure 3.9 Maintain Current Levels of Service Project Condition Profile (Facilities Assets Only)



[6]Investment to maintain current LOS based on 2024-2027 MYB.
[7]Planned funding relates to maintaining the current LOS, including planned funding in the MYB and the lifecycle portion in CMHC Co-Investment.

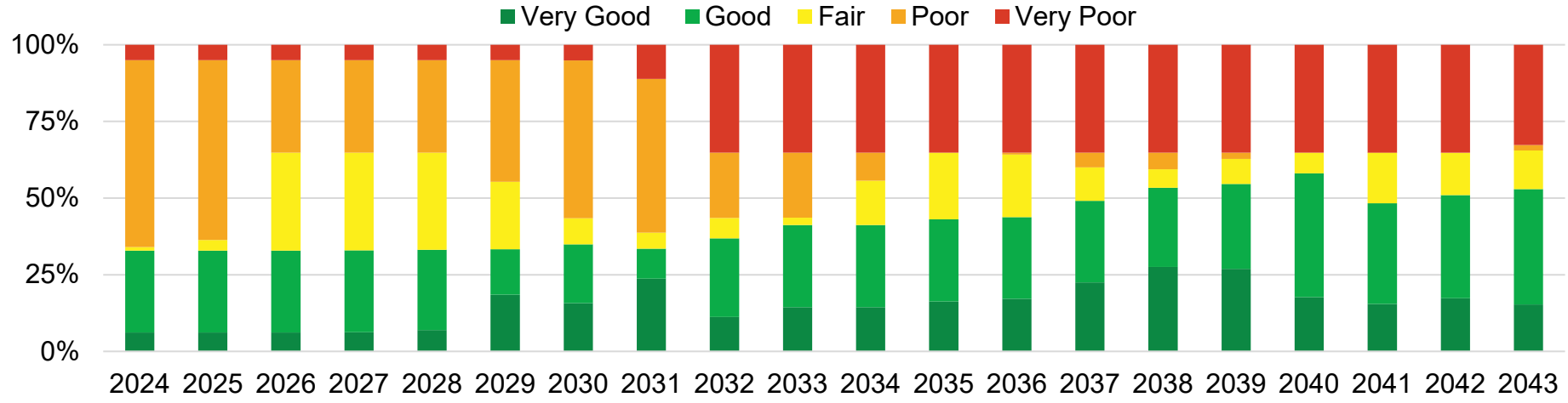
C. Scenario Three: Achieve LOS - Fair Condition

The costs to achieve an overall Fair Condition as a LOS are summarized in Table 3.15. This scenario forecasts the enhanced lifecycle and service improvement activities that are required to reach a 'Fair' condition as a LOS. Based on this analysis, a 10-year infrastructure gap of $34.6 million if LMCH is to achieve a LOS of Fair condition. Regarding Facilities, Figure 3.10 illustrates that the condition profiles resulting from this analysis show significant improvement compared to the current LOS profiles. As shown in the figure, over the next 20 years, the condition distribution will include a higher proportion of assets in Good or Very Good condition, along with a smaller proportion of assets in Poor or Very Poor condition. Overall, the portfolio of facilities is expected to maintain an average condition of approximately Fair.

Table 3.15 Scenario Three - Total Cost to Achieve "Average Fair Condition" LOS (Thousands)

Activity Type	Cost to Maintain Current LOS	Incremental Cost to Achieve this LOS	Planned Funding[8]	Additional Reserve Fund Drawdown	Achieve this LOS Gap
Operating Budget	$31,484	None identified	$31,484	None identified	None identified
Renewal, Replacement, Rehabilitation, Disposal	$139,154	$28,273	$116,089	$16,701	$34,637
Service Improvement	None identified	$69,269	$69,269	None identified	None identified
Growth	None Identified	None identified	None Identified	None identified	None identified

Figure 3.10 Achieve Overall Fair Condition Levels of Service Projected Condition Profile (Facilities Assets Only)



[8]Planned funding to achieve LOS is cumulative of planned funding of maintain current LOS.

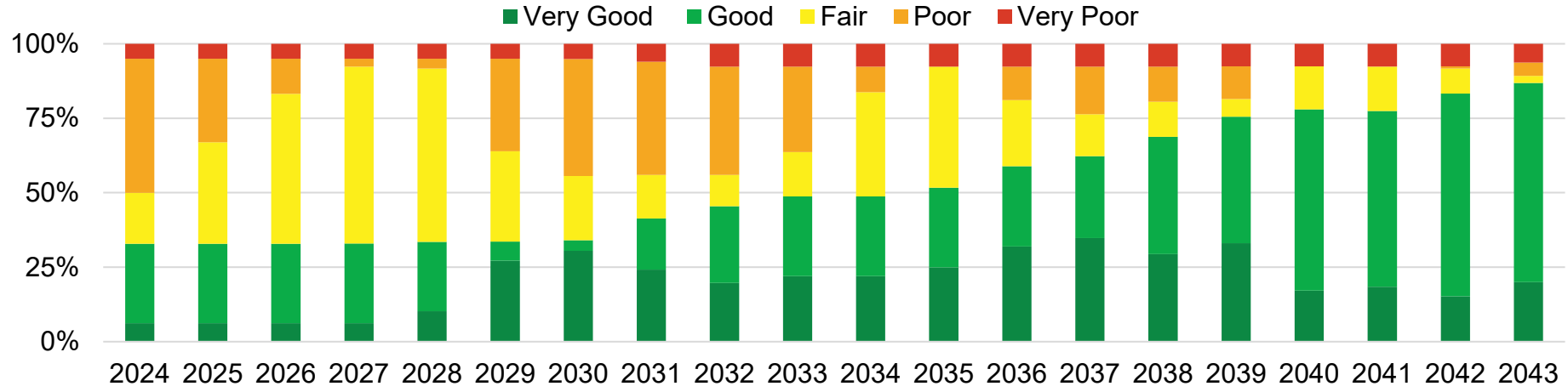
D. Scenario Four: Achieve Proposed LOS - Good Condition

The costs to achieve an overall Facilities Good Condition as a proposed LOS are summarized in Table 3.16. This scenario forecasts the enhanced lifecycle and service improvement activities that are required to reach a Good condition as a proposed LOS. Based on this analysis, a 10-year infrastructure gap of $110 million if LMCH is to achieve a proposed LOS of Good condition. Figure 3.11 illustrates that the condition profiles resulting from this analysis show significant improvement compared to the current LOS profiles or scenario 3 of targeting a 'Fair' condition. Over the next 20 years, the condition distribution will include a higher proportion of assets in Good or Very Good condition, along with a much smaller proportion of assets in Poor or Very Poor condition aligning with that scenario as a proposed LOS target.

Table 3.16 Scenario Four - Total Cost to Achieve "Average Good Condition" Proposed LOS (Thousands)

Activity Type	Cost to Maintain Current LOS	Incremental Cost to Achieve Proposed LOS	Planned Funding[9]	Additional Reserve Fund Drawdown	Achieve Proposed LOS Gap
Operating Budget	$31,484	None identified	$31,484	None identified	None identified
Renewal, Replacement, Rehabilitation, Disposal	$139,154	$103,666	$116,089	$16,701	$110,030
Service Improvement	None identified	$69,269	$69,269	None identified	None identified
Growth	None Identified	None identified	None Identified	None identified	None identified

Figure 3.11 Achieve Overall Good Condition Proposed Levels of Service Projected Condition Profile (Facilities Assets Only)



[9]Planned funding to achieve proposed LOS is cumulative of planned funding of maintain current LOS.

3.4: Forecasted Infrastructure Gaps and Financing Strategy

3.4.1: Forecasted Infrastructure Gaps

The infrastructure gaps are a dollar amount based on the difference between:

- the amount of money that needs to be spent on LMCH assets required to provide services, and
- the amount of funding presently identified in budgets and reserve funds over a 10-year period (2024-2033).

In other words, this gap reflects the difference between what LMCH plans to spend based on available funding and what is needed to meet the requirements of the assets. Ideally, infrastructure gaps should decline over time as greater investments are made to replace aging infrastructure, improve infrastructure conditions, and minimize risks associated with asset failures and insufficient asset complements.

The identified LMCH infrastructure gaps are summarized below in Table 3.17 and illustrated in Figure 3.12. The cumulative infrastructure gaps start with relatively lower values due to the availability of additional one time funding from CMHC until 2027-2028. However, after 2028, the gaps begin to rise as the extra funding diminishes and funding requirements exceed identified budgets. This growing gap raises concerns about potential infrastructure deterioration, an increased risk of asset failures, and a subsequent decline in the level of service over time.

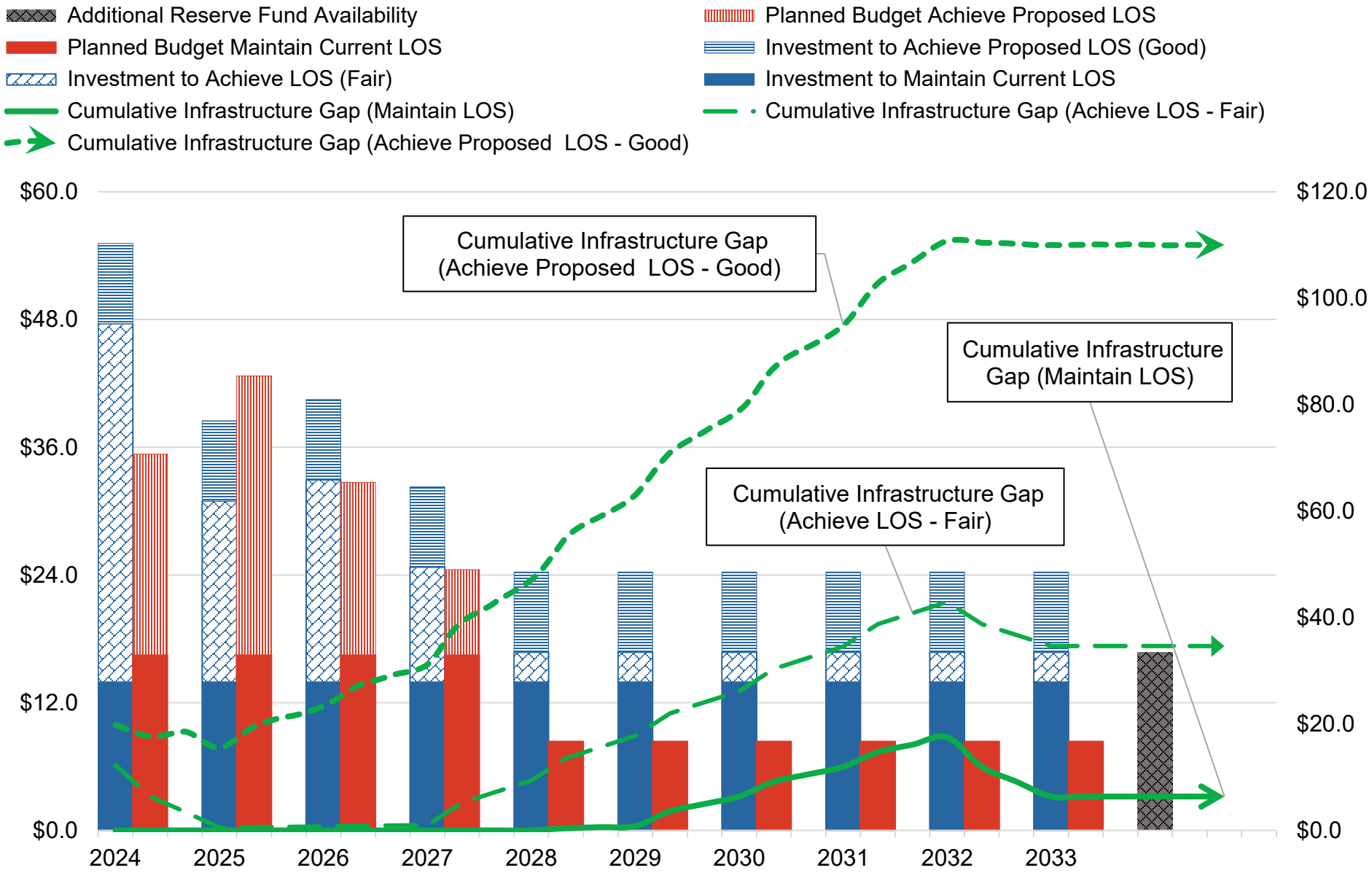
Over the 10-year analysis period, the infrastructure gap for maintaining the current LOS and keeping assets in Poor condition totals approximately $6.36 million. The infrastructure gap for achieving a Fair condition LOS is approximately $34 million. The proposed LOS of Good condition results in an infrastructure gap rising to approximately $110 million.

The gap to maintain the current LOS represents 0.66% of LMCH's $969 million infrastructure replacement value (excluding land). The incremental gap to achieve the proposed LOS (Good) is 11.4% of LMCH's infrastructure replacement value, highlighting the significant investment required to enhance asset conditions, reduce risks, and meet higher service expectations. This emphasizes the need for strategic funding allocations and prioritization to address aging assets and elevate service delivery levels in alignment with community needs. Figure 3.12 highlights the difference between maintaining the current LOS and achieving the proposed LOS. While maintaining the current LOS has a more manageable gap, achieving the proposed LOS demands substantial additional investments. The analysis underscores the importance of addressing these funding gaps through strategic planning, external funding, or reallocation of resources.

Table 3.17 Total Budget and Gap Analysis - 2024-2033 (Thousands)

Asset Type	Total Investment to Maintain Current LOS	Total Investment to Achieve Fair Condition LOS	Total Investment to Achieve Good Condition LOS	Planned Funding to Maintain Current LOS	Incremental Funding to Achieve Proposed LOS	Reserve Fund Availability	Infrastructure Gap to Maintain Current LOS	Infrastructure Gap to Achieve Fair Condition LOS	Infrastructure Gap to Achieve Good Condition Proposed LOS
LMCH	$139,154	$236,696	$312,089	$116,089	$69,269	$16,701	$6,364	$34,637	$110,030

Figure 3.12 Maintain Current and Achieve Proposed LOS Cumulative Infrastructure Gap (Millions)



3.4.2: Infrastructure Gap Financing Strategy

At present, Canada lacks a defined standard or guidance for assessing the acceptability of municipal infrastructure gaps. Nevertheless, the fundamental objective of asset management is that LMCH actions are collectively (both financial and non-financial) anticipated to tackle the growth in projected infrastructure gaps.

Typically, the infrastructure gap financing strategies support this objective by setting out the approach to ensuring that appropriate funds are available to support the delivery of infrastructure dependent services. The following subsection highlights various methods for addressing identified infrastructure gaps.

Approaches for Addressing the Infrastructure Gap

I. Additional Funding Sources

LMCH will consider a variety of funding sources as outlined and discussed below:

Additional Ancillary Income

- Ancillary income is revenue from assets excluding rental income, for example fees from third-party companies such as using building rooftops for antennas.
- Increasing ancillary income could help offset operational expenses and provide a modest capital funding source

Third-Party Contributions

- Third-party contributions typically come from other levels of government and require meeting specific project deliverables, such as energy efficiency.
- LMCH secured funding through programs like Social Housing Apartment Improvement Program (SHAIP) and Canada Mortgage and Housing Corporation (CMHC) Renovation, Repair, and Renew program, dependant on meeting accessibility and energy efficiency targets.
- A $40.1M loan agreement with CMHC was executed in 2021, with the City of London acting as a guarantor for $37M.
- To leverage third-party programs, LMCH identifies lifecycle renewal requirements that align with program eligibility criteria and evaluates the impact on maintenance and operations to ensure investments are both fiscally and operationally prudent.

Efficiency Based Incentives

- LMCH can undertake capital projects that improve cost efficiencies, such as utility reduction initiatives, allowing operational savings to be reallocated to capital funding with necessary approvals. Sustaining these savings is critical, as they become permanent within a four-year budget cycle.
- The CMHC Co-Investment program offers opportunities to implement utility savings measures, such as upgrading furnaces and boilers to more energy-efficient alternatives, helping to address the infrastructure gap.
- Through the Save ON Energy Retrofit Program (IESO), 991 fridges were replaced at eight designated CMHC high-rises at no cost to LMCH, reducing energy consumption by 33% and ensuring proper disposal of old units and refrigerant.

II. Regeneration

- Regeneration supports LMCH's portfolio growth while enhancing the overall condition and level of service by replacing aging housing units with modern, cost-effective constructions that reduce long-term operational and maintenance costs.
- This approach improves the physical condition of housing portfolio, enhances accessibility, and integrates energy-

efficient designs, aligning with LMCH's mission to provide safe, affordable, and sustainable housing.

- The Reimagine Southdale project exemplifies this strategy by replacing outdated townhouses with three six-storey apartment buildings, adding 167 units, reducing future repair and maintenance needs, and addressing both the infrastructure gap and the city's goals of inward and upward growth.

III. Risk Mitigation Approach

The Risk Mitigation Approach applies to 'Facilities' and their internal systems and components, explicitly excluding 'Other' assets (e.g. computers and vehicles). Addressing the risks associated with asset failure due to the infrastructure gap requires either an increased level of investment or a reduction in the level of service. While both options are viable, the associated risks and implications vary significantly.

Between 2024 and 2033, the total requirement cost of replacing every building component that is due for replacement is $258 million. Total facilities lifecycle requirements are distributed into four priority categories as outlined in Table 3.12. If all known requirements were remediated, the portfolio's FCI condition would be Very Good. However, LMCH's infrastructure gaps scenarios are premised on either maintaining the current LOS or achieving an overall condition of Good. Facilities investments required are $132 million for maintain current LOS, $160 million to achieve LOS of Fair condition, and $235.5 million to achieve proposed LOS of Good condition. Planned funding approximates $116 million. The allocation of this investment is important as it affects the risks carried. For example, allocating all the required investment to low and medium priorities would be a poor decision because the criticality of the requirements and their likelihood and consequence of failure are the lowest of all priority categories. Therefore, it is important to understand the risks associated with each lifecycle scenario and LMCH's tolerance to those risks. To address the varying categories of risk—high, medium, and low—four strategies have been developed, each developed to address a specific lifecycle scenario. These strategies are designed to mitigate the impacts of the infrastructure gap while considering the constraints of available resources. Each strategy operates under the assumption that specific capital funding will be available within the analysis timeframe (2024-2033). Table 3.18, Table 3.19, Table 3.20, and Table 3.21 show the percentages and the amounts of requirements per strategy. Remediation efforts are focused primarily on high-priority requirements due to their criticality and the higher likelihood and consequence of failure. Conversely, low-priority requirements receive the least attention as they are less critical with lower associated risks.

Strategy One: Budget-Constrained

As described in Table 3.18, this scenario assumes that only the currently planned budget is available. Under this approach, approximately 80% of high-risk, 45% of medium-risk, and 16% of low-risk categories may be addressed. While a significant portion of high-risk issues can be mitigated, the inability to fully address all critical risks leaves some residual risk of failure.

This strategy is primarily reactive, focusing on the most critical and immediate needs to prevent catastrophic outcomes. However, many medium-risk and low-risk categories remain largely unaddressed, which could lead to the escalation of risks over time. Consequently, this approach provides only partial mitigation of the risk associated with the infrastructure gap, limiting the ability to achieve long-term sustainability and resilience.

Strategy One will lead to:

- Deterioration in the average portfolio condition to Poor condition by 2033.
- Assets and components deteriorating quickly and which fail often.
- Work Order and vacancy rate LOS targets are difficult to achieve and are inconsistently met.
- Properties are visibly run down and non-critical but frequently observed building assets components (i.e. floors, kitchen cabinets) are in obvious need of replacement.
- Potential risk of forced unit closure due to non-compliance with various legislation.
- Some tenants may be exposed to risk and hardship including potential injury.

Table 3.18 Capital Funding Allocation - Budget Constrained Strategy

Requirements Categorization	Requirements from 2024-2033 ($Millions)	Percentage Addressed	Amount Addressed ($Millions)
High	55.2	80%	44.1
Medium	135.0	45%	60.7
Low	68.1	16%	11.2
Total	258.3		116.0

Strategy Two: Modest Mitigation

As described in Table 3.19, this strategy assumes an additional lifecycle renewal investment of $16 million over the next 10-year period to maintain the current LOS. A greater proportion of risks can be addressed compared to the budget-constrained scenario. Specifically, 90% of high-risk, 50% of medium-risk, and 22% of low-risk categories can be mitigated. This strategy significantly reduces vulnerabilities in critical areas, focusing on assets facing imminent failure or those essential to operations.

While most high-risk requirements are addressed, some risks remain unmitigated, leaving a residual potential for major component failures. Medium-risk assets receive targeted interventions, mitigating about half of the risks in this category, while lower-priority actions are taken for a small fraction of low-risk assets. This approach resembles the budget-constrained scenario with limited improvements, as it prioritizes high-risk assets but does not fully resolve medium and low-risk concerns. Overall, this strategy strikes a balance between addressing urgent needs and laying the groundwork for more sustainable asset management, although it remains constrained in fully eliminating infrastructure risks across all categories.

Strategy Two will lead to:

- LMCH will maintain current level of service with an overall condition of Poor.
- Work order and vacancy rate LOS targets are largely met but are inconsistent.
- Limited risk of unit closure due to non-compliance with various legislation.
- Limited tenant exposure to risk, hardship or potential injury.

Table 3.19 Capital Funding Allocation - Modest Mitigation Strategy

Requirements Categorization	Requirements from 2024-2033 ($Millions)	Percentage Addressed	Amount Addressed ($Millions)
High	55.2	90%	49.6
Medium	135.0	50%	67.5
Low	68.1	22%	14.9
Total	258.3		132.0

Strategy Three: Intermediate Mitigation

As described in Table 3.20, this strategy assumes an additional lifecycle renewal investment of $44 million over the next 10-year period, representing a more proactive approach than the modest mitigation scenario. Under this strategy, infrastructure risks are more effectively addressed, particularly in high and medium-risk categories. Specifically, 100% of high-risk, 60% of medium-risk, and 35% of low-risk assets are mitigated.

This approach ensures that all critical high-risk assets receive necessary interventions, significantly reducing operational disruptions. Medium-risk requirements receive a greater level of investment compared to the modest strategy, leading to a more substantial reduction in service reliability concerns. Additionally, a moderate proportion of low-risk assets are addressed, mitigating longer-term deterioration risks and preventing minor issues from escalating into critical failures.

While this strategy makes notable progress in reducing vulnerabilities, some medium and low-risk assets remain unaddressed, leaving room for future interventions. It provides a more balanced investment in asset renewal, ensuring that immediate risks are eliminated while also improving long-term infrastructure sustainability. However, as not all risks are fully mitigated, there remains some exposure to potential failures, particularly in lower-priority assets.

Strategy Three will lead to the:

- Overall improvement to Fair condition, though some assets may remain in Poor condition.
- More consistent achievement of work order and vacancy rate LOS targets.
- Lower risk of unit closures due to legislative non-compliance.
- Moderate reduction in tenant risk and hardship.
- Strengthened long-term asset sustainability by addressing more medium and low-risk requirements.
- Aesthetically pleasing and comfortable living environments are partially maintained, with some improvements enhancing tenant satisfaction and quality of life, though certain areas may experience longer renewal cycles or deferred aesthetic upgrades.

Table 3.20 Capital Funding Allocation – Intermediate Mitigation Strategy

Requirements Categorization	Requirements from 2024-2033 ($Millions)	Percentage Addressed	Amount Addressed ($Millions)
High	55.2	100%	55.2
Medium	135.0	60%	81.0
Low	68.1	35%	23.8
Total	258.3		160.0

Strategy Four: Significant Mitigation

As described in Table 3.21, this strategy assumes an additional lifecycle renewal investment (relative to a Budget Constrained Strategy as described in Table 3.18) of approximately $120 million over the next 10-year period. This approach represents a comprehensive effort to address the infrastructure gap, enabling the mitigation of 100% of high-risk and medium-risk issues, as well as 67% of low-risk categories.

By fully addressing high-risk and medium-risk assets, this strategy ensures the elimination of critical vulnerabilities, significantly reducing the potential for asset failures and operational disruptions. Additionally, the substantial progress in mitigating low-risk categories provides a proactive foundation for long-term asset sustainability and resilience, preventing future escalation of risks.

This approach maximizes risk reduction, ensuring that infrastructure remains reliable, safe, and aligned with service level expectations.

Strategy Four will lead to the:

- Ability to reach an average condition of Good as a proposed LOS and resolve 100% of high and medium priority requirements and most low priority requirements.
- Ability to achieve other LOS, such as work orders and target vacancy rate.
- Building components are adequately maintained.
- Lower risk of unit closure due to non-compliance, and the ability to uphold legislative requirements.
- Safe and appropriate housing is provided to the greatest number of LMCH households.
- Aesthetically pleasing and comfortable living environments are maintained, enhancing tenant satisfaction, quality of life, and overall well-being while supporting a positive perception of the facility.

Table 3.21 Capital Funding Allocation – Significant Mitigation Strategy

Requirements Categorization	Requirements from 2024-2033 ($Millions)	Percentage Addressed	Amount Addressed ($Millions)
High	55.2	100%	55.2
Medium	135.0	100%	135.0
Low	68.1	67%	45.3
Total	258.3		235.5

3.5: Discussion

3.5.1: Lifecycle Management Scenarios and Risk Mitigation

The lifecycle management section included four scenarios: a planned budget scenario, a maintain current LOS scenario of Poor condition, a scenario to achieve a LOS of Fair condition, and a scenario developed to achieve the proposed LOS targets for overall Good condition.

These four scenarios present various LOS outcomes based on the funding allocated for asset lifecycle renewal and service improvement initiatives. The level of investment directly influences the overall condition of the asset portfolio and risk mitigation. Investment and budget requests prioritize asset renewals based on high, medium, and low-risk assessments. Within each risk category, priority spend items are determined based on short- and long-term risk impacts and likelihood of occurrence. Capital budgeting requests balance the scheduling of immediate and longer-term high-risk items.
As a result, the choices made will have significant implications not only for the long-term condition of the assets but also for LMCH's operational effectiveness, risk, service delivery, and capacity to meet tenants needs.

3.5.2: Current and Future Challenges

The LMCH 2024-2027 Strategic Plan provide a structured approach to navigating and prioritizing critical factors that impact LMCH's operations and infrastructure. These documents outline a clear roadmap for addressing primary and secondary priorities, with a focus on service delivery, facilities management, technology integration, and staff development. Key priorities include improving the tenant experience, enhancing service delivery, and investing in community infrastructure. The following sections summarize the main current and future challenges influencing LMCH's infrastructure needs and associated costs, as identified in these strategic frameworks.

Technology

LMCH faces ongoing technology challenges as housing service systems evolve. Key assets like laptops, cellphones, and IT equipment require frequent replacement due to short three-year lifecycles. LMCH also relies on VFA software to catalog building conditions and prioritize lifecycle requirements. To address these challenges, LMCH must maintain technology upgrades, staff training, and improved system compatibility to ensure efficient service delivery and strategic decision-making.

Social Challenges

Mismatched tenant placements could strain community dynamics, potentially causing conflicts and a lack of cohesion within LMCH communities. This misalignment could lead to property damage, negatively impacting the living environment and increasing lifecycle renewals and maintenance requirements. Tenants with complex needs might lack access to support services, resulting in instability, frequent turnover, and disruptions in community continuity. These social challenges could lead to unplanned maintenance, higher operational costs, and accelerated asset degradation, ultimately compromising the sustainability and lifespan of LMCH housing facilities.

Climate Change

LMCH faces increasing challenges from climate change, impacting the sustainability and resilience of its housing portfolio. Aging assets are vulnerable to accelerated deterioration due to extreme weather and environmental stresses, requiring LMCH to prioritize lifecycle renewal strategies that enhance climate adaptability, such as improving building envelopes and adopting energy-efficient technologies.

In alignment with the 2019 City of London's Climate Emergency Action Plan, LMCH will engage with the City to integrate sustainability into decision-making using the Climate Lens Process, public reporting, and collaboration with municipal bodies.

LMCH has been actively pursuing energy optimization through retrofits, improvements, and Energy Management Systems (EMS) installations at key sites, demonstrating its commitment to reducing environmental impact.

Future AMPs may incorporate detailed analyses of lifecycle renewal costs needed to achieve energy efficiency and GHG reduction targets, ensuring alignment with LMCH's 2023-2027 Strategic Plan and supporting green-for-like renewals and service improvement initiatives.

Aging Infrastructure

LMCH owns and manages an aging housing portfolio, with many facilities built in the 1950s. Now exceeding 50 years of service, these buildings face challenges related to deferred maintenance, deteriorating systems, and outdated components. The AMP analysis indicates that LMCH's facilities, averaging 52 to 56 years old, surpass their expected useful life, requiring continuous capital investments to sustain functionality and meet evolving tenant needs.

Failure to address asset renewal needs in a timely manner risks accelerating deterioration, increasing operational costs, and disrupting services. LMCH's 2023 Annual Report highlights critical investments in elevator and generator modernizations, roof replacements, and energy-efficient upgrades, reinforcing the need for ongoing reinvestment.

To align with modern service delivery expectations, LMCH prioritizes accessibility improvements, energy efficiency, and climate resilience. Regeneration projects like Reimagine Southdale address aging infrastructure challenges by replacing outdated units with purpose-built, sustainable housing, ensuring long-term viability and improved tenant living conditions

Growth

London's population and employment growth are increasing pressure on City services and infrastructure, including affordable housing. For LMCH, this growth increases challenges in maintaining and improving its asset portfolio while addressing evolving housing needs. This issue is exacerbated for LMCH properties, where a large portion of the portfolio needs revitalization. As identified in the LMCH Regeneration Strategy, restoring, revitalizing, and maintaining these assets is essential to improve housing conditions, reduce operational costs, and ensure tenant safety and well-being.

Section 4. Conclusion and Recommendation

4.1: Conclusion

Table 4.1 provides a summary of the State of Infrastructure, Infrastructure Gaps, and Reinvestment Rates for LMCH assets. Valued at over $1 billion, the LMCH asset portfolio is predominantly in Poor condition, reflecting historically insufficient investments to maintain these assets at a Fair or better condition. Facilities, which make up most of the portfolio's value, are particularly affected, with significant lifecycle deficiencies requiring attention. Beyond condition enhancements, LMCH's requirements include energy optimization to enhance efficiency and reduce environmental impact.

To maintain the current LOS, a total investment of approximately $139 million over a 10-year period (2024-2033) is required. This will increase the reinvestment rate to 1.4%. Achieving the LOS of Fair condition across the portfolio will necessitate more investment, estimated at $267 million over the same period. This will require an increase in the annual reinvestment rates to 1.7%. LMCH recommends striving for the proposed Good condition LOS, which will require even greater level of investment—estimated at $312 million over the same period—necessitating an increase in the annual reinvestment rate to the recommended 2.5%.

Addressing these funding gaps in a timely and strategic manner is important to support the long-term sustainability of LMCH assets and maintain service levels for tenants. External factors, such as supply chain challenges and rising costs, may add complexity to these efforts, potentially impacting the pace of assets lifecycle activities.

Without proactive planning, lifecycle costs may rise, operations may face challenges, and housing quality may decline.

Table 4.1 Summary of the State of Local Infrastructure, Infrastructure Gap, and Reinvestment Rates (Millions)

Asset Type	Replacement Value	Current Condition	Infrastructure Gap Maintain Current LOS [10]	Infrastructure Gap Achieve LOS[11] (Fair Condition)	Infrastructure Gap Achieve Proposed LOS[12] (Good Condition)	Current Annual Reinvestment Rate	Recommended Annual Reinvestment Rate [13]
Land	$39.9	N/A	N/A	N/A	N/A	N/A	N/A
Facilities	$964	Poor	$6.36	$34.64	$110.03	1.2%	2.5%
Other Assets	$5.2	Fair					
Overall LMCH	$1,009.1	Poor	$6.36	$34.64	$110.03	1.2%	2.5%

[10] This projected infrastructure gap is reduced by the forecasted reserve fund drawdown availability over the next decade.
[11]The calculated infrastructure gap required to achieve a Level of Service (LOS) of an average Fair condition for the LMCH portfolio.
[12]The calculated infrastructure gap required to achieve the proposed Level of Service (LOS) of an average Good condition for the LMCH portfolio.
[13] Source: Reinvestment rate is based on achieve proposed LOS of Good condition.

Reliability and Accuracy Commentary

Figure 4.1 visually presents LMCH and CAM staff assessment of AMP data reliability and accuracy. Data reliability and accuracy is moderate.

Figure 4.1 Accuracy Reliability Scale

Based on the materiality of assets, key rating considerations and conclusions are:

- Facilities valuation and needs is based on VFA information and corroborated with Altus standard costing. However, full implementation of VFA Facilities Management software within operations is undergoing a phased approach, which was not complete at the point of AMP completion.
- Remaining inventories are an amalgamation of data sources. Majority of valuation, condition, and investment actuals and forecasts are primarily based on expert opinion. Further processes, systems, and controls are required to improve these data sets.

A review of systems and processes that support LMCH asset registries is recommended. System and process improvements will raise the reliability and accuracy of the data. The long-term goal is to have all asset registries within advanced asset management software applications.

4.1.1: Ontario Regulations 588/17 Compliance

This AMP is compliant with the July 1, 2024, and July 1, 2025, O.Reg. 588/17 requirements. A detailed reconciliation of this AMP's compliance with the O. Reg. 588/17 requirements is contained in Appendix A. O.Reg.588/17 Asset Management Plan Requirements.

4.2: Recommendations

The City's CAM Program is founded on the principle of continuous improvement with the object of increasing line-of-sight quality of data/information and the tools and techniques that are used to inform services and asset management decision-making. This increased quality will lead to greater confidence in the analysis documented and decisions formed through the AMP.

Each of the following recommendations will be completed with leading support from the City's CAM staff per the approved asset management service level agreement, and within existing staff, other resources, and budgets.

4.2.1: Strengthen LMCH Asset Management Plan

i. Aligning the LMCH AMP with the City of London's Multi-Year Budget (MYB).

ii. Continue improving the LMCH AMP and preparing for the next update in 2027 to inform the next 2028-2031 MYB. This will involve collaboration between CAM and LMCH staff to:

- Ensure that asset inventories, including facility systems, components and other asset types, are comprehensive and incorporate accurate condition and performance data.
- Expand the scope of the AMP to include green infrastructure, such as trees and natural elements within LMCH properties, to provide a holistic approach to asset management.
- Implement advanced performance measures to LMCH 'Other' assets.
- Develop more complex asset lifecycle strategies to achieve proposed LOS at the lowest lifecycle cost, while minimizing risks of asset failure.
- Advance risk models and integrate them with the prediction models, enabling evidence-based decision-making.
- Maintain compliance with applicable regulatory requirements, including O. Reg 588/17.

iii. Annual reviewing of LMCH AMP implementation progress.

4.2.2: Explore opportunities to address the infrastructure gap through various financing strategies

i. Pursuing External Funding Sources.

ii. Exploring Ancillary Income.

iii. Implementing Efficiency-Based Incentives.

iv. Regeneration Initiatives.

v. Mitigating Risks though multiple strategies.

vi. LMCH could submit additional investment business case through the MYB process. Such business cases will mitigate the growth of the achieve proposed LOS cumulative 10-year infrastructure gap.

4.2.3: Continue the practice of tenant placement policies supporting successful tenancies and healthy LMCH communities

i. Strengthened policies have reduced and will continue to reduce willful damage and premature component replacement.

ii. Aligning housing with tenant needs and support services has enhanced and will continue to enhance stability, lower maintenance, extends asset life, and reduce costs.

Appendix A. O.Reg.588/17 Asset Management Plan Requirements

A1. O.Reg.588/17 Asset Management Plan Compliance Reconciliation

Table A1.0.1 O.Reg.588/17 July 1, 2024, Requirements

O.Reg.588/17 Section	Requirement	Mapping to AMP
0	Summary of assets in each category	Sections - #3.1.1
5.(2) 3.	Replacement cost of assets in each category	Sections - #3.1.1
5.(2) 3.	Average age of assets in each category	Sections - #3.1.2
5.(2) 3.	Condition of assets in each category	Sections - #3.1.3
5.(2) 3.	Description of municipality's approach to assessing condition of assets in each category	Sections - #3.1.3
5.(2) 1.	Current levels of service	Sections - #3.2.1 and #3.2.2
5.(2) 2.	Current performance measures of assets in each category based on established metrics	Sections - #3.2.1 and #3.2.2
5.(2) 4.	Lifecycle activities needed to maintain current levels of service for 10 years	Sections - #3.3.2
5.(2) 4.	Costs of providing lifecycle activities needed to maintain current LOS, based on assessment of lifecycle, options, risks, lower cost	Sections - #3.3.3 and #3.3.4
5.(2) 4.	Link or description of assessment of current LOS lifecycle, options, risks, lower cost	Sections - #3.3.2
5.(2) 5.	For population <25K, description of population or economic forecast assumptions, and how these connect to lifecycle cost projections for current LOS	Not Applicable
5.(2) 6.i.	For population 25K or more, population and employment forecasts	Not Applicable
5.(2) 6.ii.	For population 25K or more, lower tier in Greater Golden Horseshoe (GGH), Sched 7 or portion of upper tier growth plan forecast, or assumptions	Not Applicable
5.(2) 6.iii.	For population 25K or more, upper/single tier outside GGH, population and employment forecasts, or assumptions	See City of London 2023 CAM Plan[14]
5.(2) 6.iv.	For population 25K or more, lower tier outside GGH, portion of upper tier growth plan forecast	Not Applicable
5.(2) 6.vi.	For population 25K or more, capital and significant operating costs for each of 10 years, to maintain LOS to accommodate increase in demand cause by growth	Sections - #3.3.3
7.(1)	Date of review and update of AMP - within 5 years	Include once finalized
8.	Endorsement of AMP by executive lead	Include once finalized
8.	Approval of AMP by municipal Council resolution	Include once finalized
9.(1)	Date of municipal Council review of AM progress - before July 1 every year	Include once finalized
9.(2)	Annual municipal Council review includes progress, factors impeding implementation, strategy to address factors	Include once finalized
10	Website availability of policy and AMP, copy provided if requested	Include once finalized

[14] https://london.ca/sites/default/files/2023-10/Corporate%20Asset%20Management%20Plan%202023.pdf

Table A1.0.2 O.Reg.588/17 July 1, 2025, Requirements

O.Reg.588/17 Section	Requirement	Mapping to AMP
6.(1) 1.	Proposed levels of service for each of 10 years	Sections - #3.2.1
6.(1) 2.	Explanation of why proposed LOS are appropriate, based on options, delta, achievability, affordability	Sections - #3.3
6.(1) 2.	Link or description of assessment of proposed LOS options, delta, achievability, affordability	Sections - #3.3
6.(1) 3.	Proposed performance measures of assets based on metrics established by the municipality (e.g. measures for energy usage, operating efficiency, etc.)	Sections - #3.2
6.(1) 4.	Lifecycle management strategy: Identification of lifecycle activities needed to provide proposed levels of service for a 10-year period, based on assessment of full lifecycle, options, risks, lowest cost	Sections - #3.3.3 and #3.3.4
6.(1) 4. i.	Link or description of assessment of proposed LOS lifecycle, options, risks, lower cost	Sections - #3.3.3 and #3.3.4
6.(1) 4. ii.	An estimate of annual costs for undertaking identified lifecycle activities over a 10-year period.	Sections - #3.3.3
6.(1) 4. iii.	Projections for annual funding to be available to undertake identified lifecycle activities over a 10-year period	Sections - #3.3.3
6.(1) 4. iii.	Explanation of the options examined to maximize the funding projected to be available	Sections - #3.3.3 and #3.4.1
6.(1) 4. iv.	Identification of funding shortfalls for lifecycle activities over a 10-year period	Sections - #3.4.1
6.(1) 4. iv.	Identification of lifecycle activities that will be undertaken if there is a shortfall	Sections - #3.3.3
6.(1) 4. iv.	Explanation of how risks associated with not undertaking any of the lifecycle activities will be managed.	Sections - #3.3.3 and #3.3.4
6.(1) 5.	For population <25K, description of population or economic forecast assumptions, and how these connect to lifecycle cost projections for proposed LOS	Not Applicable
6.(1) 6.	For population 25K or more, capital and significant operating costs for each of 10 years, to achieve proposed LOS to accommodate increase in demand caused by growth	Sections - #3.3.3
6.(1) 6. ii.	For population 25K or more, funding projected to be available, by source, due to growth	Sections - #3.3.3
6.(1) 6. iii.	For population 25K or more, overview of the risks associated with implementation of the AMP	Sections - #3.5
6.(1) 7.	Explanation of other key assumptions	Sections - #2.4

Appendix B. Lifecycle Management Scenarios: Budgeting & Lifecycle Management Information

Overview

The descriptions listed in B1 to B4 provide additional information in tables listed in Section 3.3.4 and 3.4.1 (Table 3.13, Table 3.14, Table 3.15, Table 3.16, Table 3.17, and Table 4.1). Additional details are listed for lifecycle activity types categorized as:

- Operating.
- Renewal, Replacement, Rehabilitation, and Disposal.
- Service Improvement.

The intent with this additional information is to show 'line of sight' from 10-year total planned expenditures to the AMP. It also illustrates how budgeting classifications of Lifecycle Renewal and Service Improvement align with lifecycle activities, and with AMP classifications of maintain current LOS and achieve proposed LOS.

Operating

Operating Budget information is the same for all Scenarios thus it is described in this overview. It is the average of 2024 ($30,376,000) and 2025 ($32,592,000) = $31,484,000. The operating costs required to maintain the current Level of Service (LOS) are assumed to align with the budget, thus no operating-related infrastructure gap is identified.

Service Improvement

The service improvement investment needs are assessed with the assumption that the budget aligns with the identified requirements and is adequate to support the desired enhancements. This includes initiatives such as adding new housing units, constructing new assets like park structures, or upgrading existing assets, such as replacing furnaces with energy-efficient models.

B1. Scenario 1: Planned Budget

Renewal, Replacement, Rehabilitation, Disposal Activities

Table B1.0.1 contains the total and average annual planned expenditures from 2024-2033. It describes Lifecycle Renewal funding used to maintain current LOS. It is noted that Table B1.0.1 information is the same information listed in Scenarios 2 to 4.

Table B1.0.1 Scenario 1 – Maintain Current LOS Planned

Activity Type	Planned Funding Description	Planned Funding over 2024-2033 period (thousands)	Average Annual Planned Funding (thousands)
Renewal, Replacement, Rehabilitation, and Disposal	Unspent Lifecycle Renewal capital budget as of year-end 2023 (LMH2618 and LMH2619)	$10,489	$1,049
	Lifecycle Renewal capital Budget from 2024-2033 (LMH2618 and LMH2619)	$83,500	$8,350
	CMHC Co-Investment - Maintain Current LOS portion	$22,100	$2,210
Total		$116,089	$11,609

Service Improvement

Further detail on Service Improvement activity is described in Table B1.0.2. It describes Service Improvement funding used to achieve proposed LOS.

Table B1.0.2 Scenario 1 – Achieve Proposed LOS Incremental Planned Funding considered as Service

Activity Type	Planned Funding Description	Planned Funding over 2024-2033 period (thousands)	Average Annual Planned Funding (thousands)
Service Improvement	Unspent Service Improvement capital budget as of year-end 2023 (PH2640 Phase 1 funding)	$28,027	$2,803
	LMH2602 Service Improvement budget	$730	$73
	PH2640 - Phase 2 funding Service Improvement budget	$32,500	$3,250
	CMHC Co-Investment - Achieve Proposed LOS funding	$8,012	$801
Total	Total	$69,269	$6,927

Table B1.0.3 provides further commentary on how CMHC Co-Investment funding is split between maintain current LOS and achieve proposed LOS. A portion is allocated for improving or adding new assets, while the majority is directed toward sustaining existing infrastructure, ensuring a balanced approach to investment and service levels.

Table B1.0.3 Scenario 1 – CMHC Funding Split Between Maintain Current and Achieve Proposed LOS

CMHC Investment Funding Categorizations	CAM Classification	Total amount (thousands)
Remaining CMHC Investment - approximation for year-end 2023	N/A listing to show steps	$30,124
10% of remaining CMHC Investment for adding new assets	Achieve Proposed LOS (disclosed in Table B1.0.2)	$3,012
90% of CMHC Investment with existing asset base - amount to integrate in available funding for LMCH	N/A listing to show steps	$27,112
Rounded Amount	N/A listing to show steps	$27,100
Approximately 80% (81.55%) of funding relates to Maintain Current LOS	Maintain Current LOS (disclosed in Table B1.0.1)	$22,100
Approximately 20% (18.44%) of funding relates to Achieve Proposed LOS	Achieve Proposed LOS (disclosed in Table B1.0.2)	$5,000

B2. Scenario 2: Maintain Current LOS

Renewal, Replacement, Rehabilitation, Disposal Activities

These activities and planned expenditure are described in Table B2.0.4. It describes Lifecycle Renewal funding used to maintain current LOS. The table lists the Total amount of needs for Facilities and Other assets.

Table B2.0.4 Scenario 2 – Cost to Maintain Current LOS

Activity Type	Asset Type	Purpose of Needs	Total amount (thousands)
Renewal, Replacement, Rehabilitation, and Disposal	Facilities	Maintain Current LOS	$131,939
	Other assets	Maintain Current LOS	$7,215
	Total		$139,154

B3. Scenario 3: Achieve LOS – Fair Condition

Renewal, Replacement, Rehabilitation, Disposal and Service Improvement Activities

These activities and planned expenditure are described in Table B2.0.4 which lists the total amount to maintain current LOS needs of Facilities and Other assets.
Table B3.0.5 lists cost to achieve Fair condition LOS.

Table B3.0.5 Scenario 3 – Cost to Achieve LOS of Fair

Activity Type	Asset Type	Purpose of Needs	Total amount (thousands)
Renewal, Replacement, Rehabilitation, and Disposal	Facilities	Maintain Current LOS	$131,939
	Other assets	Maintain Current LOS	$7,215
Service Improvement	Facilities	Increment to Achieve Fair LOS	$28,273
	Other assets	Increment to Achieve Fair LOS	None identified
	Total		$167,427

B4. **Scenario 4: Achieve Proposed LOS – Good Condition**

Renewal, Replacement, Rehabilitation, Disposal and Service Improvement Activities

These activities and planned expenditure are described in Table B3.0.5 which lists the Total amount to maintain current LOS needs of Facilities and Other assets and the total incremental cost to achieve Fair condition LOS.

Table B3.0.6 lists total cost to achieve Good condition proposed LOS.

Table B3.0.6 Scenario 4 – Cost to Achieve Proposed LOS of Good condition

Activity Type	Asset Type	Purpose of Needs	Total amount (thousands)
Renewal, Replacement, Rehabilitation, and Disposal	Facilities	Maintain Current LOS	$131,939
	Other assets	Maintain Current LOS	$7,215
Service Improvement	Facilities	Increment to Achieve Fair LOS	$28,273
	Facilities	Increment to Achieve Proposed Good LOS	$75,393
	Other assets	Increment to Achieve Proposed LOS	None identified
	Total		$242,820

Glossary

Definitions

Asset: Non-financial assets having physical substance that are acquired, constructed, or developed.

For the LMCH, capital assets have the following characteristics:

- Beneficial ownership and control clearly rest with LMCH, and
- The asset is utilized to achieve LMCH plans, objectives, and services with the intention of being used on a continuous basis and is not intended for sale in the ordinary course of business.

Community Housing: Housing owned and operated by non-profit housing corporations, housing co-operatives, and municipal governments or district social services administration boards. These providers offer subsidized or low-end-of market rents. This form of housing is sometimes referred to as social housing and affordable housing.

Facility Condition Index (FCI): FCI is a key metric for assessing building condition, calculated as the weighted sum of cumulative repair requirements over five years divided by the replacement value. By applying year-specific weights, it prioritizes repairs and supports strategic asset management to ensure long-term functionality. The FCI score is widely used to benchmark facility conditions across a portfolio or to monitor changes in a facility's condition over time, enabling effective comparisons of assets that are different in their size and built form as well as enabling informed decision-making.

Green Infrastructure Asset: Defined by O.Reg. 588/17, means an infrastructure asset consisting of natural or human-made elements that provide ecological and hydrological functions and processes and includes natural heritage features and systems, parklands, stormwater management systems, street trees, urban forests, natural channels, and permeable surfaces.

Housing Services Act (HSA): Establishes the legislative framework for the community (formerly called social housing) in Ontario. Rent-geared-to-income assistance is administered locally by 47 Service Managers (municipalities and district social services administration boards) designated under the *Housing Services Act, 2011* to manage community housing programs across the province.

Non-Rentable or Inactive Restoration: This category includes all remaining units that have suffered catastrophic loss, i.e. fire, flood, or other insurable damage. Construction projects such as portfolio improvements and secondary suites. Units that are in pre-pest clearance as well as any that are pest cleared and are now in active restoration.

Rent-geared-to-income: Rental units where rent charged is equal to 30% of gross income less exclusions and deductions. Household income is verified through income testing by the housing provider or Service Manager.

Replacement Value: The cost LMCH would incur to completely replace an asset, at a selected point in time, at which a similar level of service would be provided.

Service Manager: Service Managers are responsible for determining a household's eligibility for rent-geared-to-income assistance and priority access to subsidized housing in their service area. Decisions are made following provincial eligibility and priority rules, and local eligibility and priority rules that are set by the Service Manager on specific matters as specified by regulation.

For more information vist **london.ca/CAM** or contact
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