

VanStat — City Buildings

Asset Condition & Service Delivery Risk

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THIS PRESENTATION COVERS

- ✓ Condition of City-owned building assets
- ✓ Deferred capital maintenance and renewal needs
- ✓ Capital investment prioritization and examples of progress
- ✓ Drivers of infrastructure pressure
- ✓ Service delivery risk from deteriorating condition

Capital planning context - this deck supports the upcoming capital planning process and investment prioritization.



City-owned buildings are essential platforms for delivering public services.

Residents access community centres, pools, arenas, libraries, and cultural venues for recreation and learning, while staff access fire halls, service yards, and civic offices to deliver essential municipal services.



When buildings perform

Services are reliable, accessible, and resilient.



When they deteriorate

Programming disruptions and accessibility gaps compared to modern standards challenge operational efficiency. As technology ages, functional obsolescence and accessibility limitations emerge, resulting in reduced efficiency.



Emergency role

City buildings are increasingly relied upon as cooling centres, clean-air shelters, and emergency response hubs.



*On-going **under-investment** has resulted in deteriorating conditions that challenge service delivery, accessibility and continuity - outcomes that matter most to residents.*

Scale of the Portfolio



~700

City-owned and leased buildings



~14M

square feet



~\$10B

replacement value

Service Category	Contains	Assets	Sq Ft	Weighted Avg Age	Replace Cost
Community Facilities	Libraries, rec centres, pools, rinks, cultural venues, childcare, social service facilities	224	5.23M	53 yrs	\$4.0B
Parks Buildings & Open Spaces	Fieldhouses, washrooms, concessions, park service buildings	210	0.69M	69 yrs	\$0.5B
Commercial	Commercial, industrial, and parking assets	92	3.69M	48 yrs	\$1.9B
Civic Infrastructure	City Hall, admin offices, service yards	66	1.19M	48 yrs	\$0.7B
Housing	Non-market and market housing	64	2.05M	29 yrs	\$1.8B
Public Safety	Fire halls, police facilities, animal shelter	40	1.08M	32 yrs	\$0.9B
Total		696	~13.9M	~48 yrs	~\$9.8B

The City owns a large, valuable, and complex portfolio that requires active stewardship — average age of City-responsible buildings by area is 48 years. Expected service life for a building is 75-80 years; systems within the building is 15-30 years.



Facility Condition Index (FCI) Summary

$$\text{FCI}\% = \frac{\text{Deferred Maintenance Cost (DMC)}}{\text{Current replacement value (CRV)}} \times 100$$

Rating	Avg FCI	Assets	DMC	% of Portfolio (count)
Very Poor (30%+)	50.9%	190	\$0.62B	30%
Poor (10–30%)	19.4%	200	\$0.76B	31%
Fair (5–10%)	7.9%	62	\$0.07B	10%
Good (1–5%)	3.0%	88	\$0.04B	12%
Very Good (0–1%)	0.0%	88	\$0.00B	14%
Unrated*	—	23	—	4%

* Interim holds

Facility Condition Index (FCI) is a financial asset-management indicator, not a measure of building safety. It is used to quantify deferred maintenance relative to replacement value and support renewal and capital planning decisions.

Many buildings now require substantial reinvestment to remain functional and operate effectively over the long term — a systemic challenge accumulated over decades.

~60%

of buildings have FCI of
poor or very poor

72% for Recreation Facilities

~\$1.5B

estimated deferred
maintenance costs

The infrastructure deficit will take decades to close

Poor facility condition is a symptom of a broader, city-wide infrastructure challenge

Annual infrastructure deficit

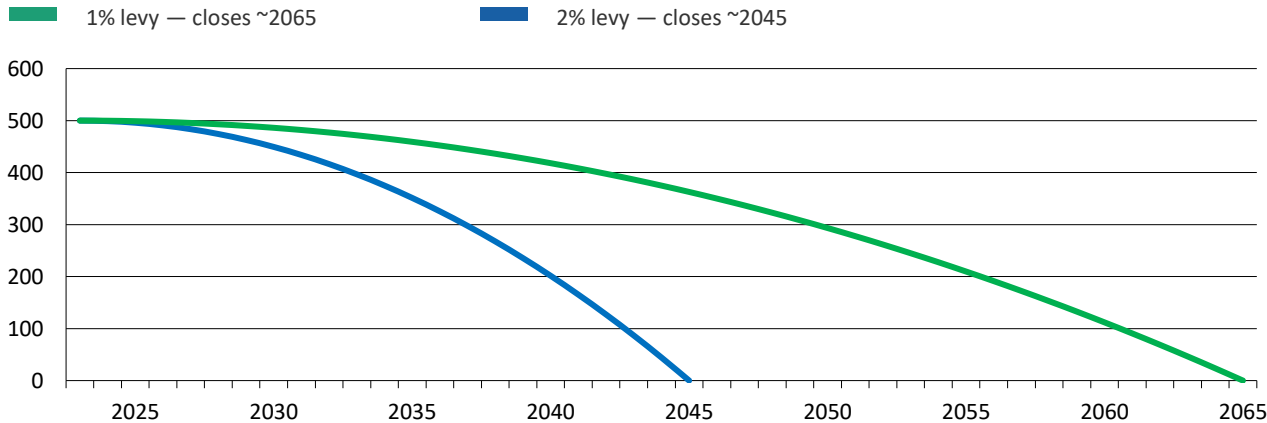
\$500M

Gap between required and actual annual reinvestment
Updated since 2022

Response: 1% levy compounding since

2019

A phased, fiscally conservative path forward



Current path

40 years

1% levy. Deficit closes ~2065.

IF 2% LEVY WAS APPROVED BY COUNCIL

20 years

2% levy. Deficit closes ~2045

5% annual levy increase: deficit could be eliminated by approximately 2033 | 10% annual levy increase: deficit could be eliminated by approximately 2030



Funding & Portfolio Pressures

Capital **maintenance** and renewal **funding** has **not kept pace** with aging assets, portfolio growth, and cost escalation. Even with active management, the City **cannot address all** deterioration at once.



Prioritize Highest-Risk Assets

Resources must be focused where risk and service impact are greatest. This can mean **deferring lower operational/service projects**, which will continue to deteriorate and become **more costly over time**.



Delivery Capacity & Uncertainty

Scaling renewal depends on skilled staff, consultants, and contractor **availability**. Unknown conditions behind walls or below grade also drive cost and schedule uncertainty in older buildings.



Asset management is not just about managing buildings. It is about stewarding places that future generations will rely on.

Why the Pressure Is Increasing



Aging Assets

Driver 1 of 3

- **Aging facilities:** Buildings and systems are operating well beyond their intended lifecycles, driving higher operating costs, increasing maintenance unpredictability, and disrupting operations and programming. *Average building age: 48 years.*
- **End-of-life systems:** Key building systems — including Building Envelope (Roof), Mechanical (HVAC), Electrical (Lighting/Life Safety Systems), Plumbing, Elevators, and Building Controls (DDC Systems) — have exceeded their 15–30-year useful life, resulting in more frequent failures and unplanned closures.



As noted in the OAG Audit, 28% of recreation facilities were in good or fair condition and 72% of facilities were categorized as poor or very poor.

Building systems operating beyond design life are increasingly unpredictable — and increasingly expensive to keep running.



Portfolio Growth Further Compounds Renewal Pressures

Driver 2 of 3

New facilities add long-term operating and lifecycle obligations. When funding doesn't keep pace, overall condition declines even as new assets are delivered.

Between 2009 and 2024, the City acquired 102 buildings (e.g., CACs), adding 2.1 million square feet. Each **new building brings ongoing maintenance and eventual renewal needs** that compound over time. This includes the City's **non-profit lease portfolio**, which delivers **social value** through long-term, below-market, or **nominal leases**, while the **City assumes some capital maintenance and long-term lifecycle responsibilities**.



Sea Star Childcare



Kiwassa Neighbourhood House

The portfolio is growing, but funding capacity is not — widening the gap between need and investment.



Cost Escalation

Driver 3 of 3



Inflation, supply shocks, and market volatility reduce buying power — the **same budget** buys **fewer asset replacement and repairs** each year. Construction cost escalation has significantly outpaced general inflation.

For example, a non-residential project delivered for \$100 million in 2019 would cost approximately \$140–\$150 million today. While construction costs have moderated since 2023, they have not reset to pre-pandemic levels **(Statistics Canada, Building Construction Price Indexes [BCPI])**.

Rising costs mean that even maintaining current investment levels results in fewer completed projects and repairs over time.

What This Means for Services

SERVICE IMPACTS

Building condition can directly impact the City's ability to deliver essential social services and enable cultural programming.



QE Theatre Pneumatic AHU

THEATRE AND CULTURAL VENUES AT RISK

Civic Theatres & Cultural Facilities

Four venues hosting ~897,000 attendees and generating ~\$22.7M annually. Aging mechanical and electrical systems limit simultaneous programming, **reduce operating hours, and constrain production quality.**

At Firehall Arts Centre (1906), heritage constraints and lack of barrier-free access **limit programming and audience accessibility.**



CIVIC CULTURAL INSTITUTION LIMITATIONS

Museums (MOV, Art Gallery, Maritime)

Aging HVAC and envelope systems **restrict exhibit and storage spaces.** The Art Gallery's aging booster chiller cannot maintain temperature and humidity standards. At the Maritime Museum, moisture issues **constrain exhibit planning.**



ESSENTIAL SOCIAL SERVICES DISRUPTED

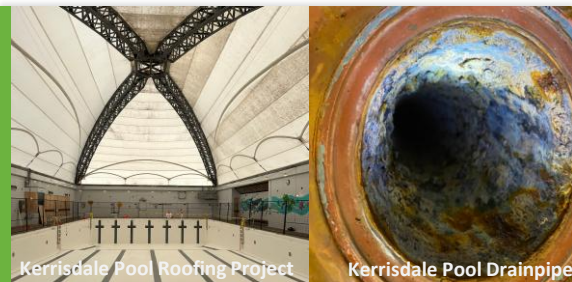
Carnegie, Gathering Place & Evelyn Saller

Shower and hygiene facilities have experienced intermittent closures due to required upgrades **disrupting services to Vancouver's most vulnerable residents.**

These at-risk City facilities advance City social and cultural priorities, serve vulnerable residents, support cultural and economic vitality.

SERVICE IMPACTS

Aging recreation facilities are causing unplanned closures and creating barriers to participation — with limited alternatives available.



Kerrisdale Pool Roofing Project

Kerrisdale Pool Drainpipe

UNPLANNED CLOSURE

Kerrisdale Pool

During a scheduled refit, a **main drain piping failure** was discovered at the 72-year-old facility. The **pool closed for three months** — all programs cancelled. **5–6 user groups displaced**, including water polo with no alternative due to depth requirements.



SEASONAL DISRUPTION

Kerrisdale Arena

A **brine line failure** at the 77-year-old facility required excavation and slab repair, **losing two months of the 2025/26 ice season**. **Figure skating and minor hockey could not be accommodated** elsewhere — Vancouver has lower per-capita rink provision than neighbouring municipalities.



ACCESSIBILITY BARRIERS

Hastings Community Centre

Located in a **rapidly growing neighbourhood** and one of the seven busiest community centres, with ~161,000 annual visits and waitlists of ~1,200. Built in 1957, with portions dating to 1936, the **disjointed and inaccessible layout** and recurring winter parking lot closures create **ongoing barriers** to safe access for **seniors, families and people with mobility challenges**.

When aging recreation facilities fail, there is no surge capacity — displaced programs and residents have nowhere to go.

SERVICE IMPACTS

Fire halls must perform at all times, but many VFRS facilities fall short of modern operational, health, and resiliency standards.



Lack of Central HVAC & Excessive Heat

12 Firehalls lack central cooling systems

Twelve Firehalls **lack central cooling systems** resulting in crews experiencing **heat stress between calls**, recovery time between alarm responses is increased and cognitive and physical performance negatively impacted. **Indoor temperatures regularly reach high 30 degrees Celsius ranges.**



Insufficient Electrical Infrastructure

All Firehalls electrical systems at capacity

Electrical systems in all firehalls are already at or near **maximum capacity**. Difficulty adding turnout gear washers, breathing apparatus washers, and other decontamination equipment. This **limits VFRS ability to implement critical cancer prevention measures and modern safety systems expected** of a contemporary fire service.



Inadequate Space & Work Environment

Training Centre + Significant Mould

Many firehalls are operating **well beyond their original design intent**. At the **Chess Street Training Grounds**, **instructional space** relies on **portables and converted storage rooms**, resulting in **temperature extremes, limited usability**, and impacts to **training quality and occupational readiness**. **Significant mould and rodent issues** have been identified at **numerous firehalls**, and **nine firehalls have not been seismically upgraded**.

Inadequate firehalls weaken firefighter well-being, readiness, response times, and emergency response.

SERVICE IMPACTS

Police facilities support critical public safety operations — deficiencies in accessibility, limited public parking, and inadequate training space are impacting service delivery and require targeted upgrades to meet operational, user, and public needs.



Accessibility Deficiencies Create Service Barriers

Current VPD facilities have **significant accessibility gaps**, including narrow entryways, limited elevator access, and no power door operators, affecting **both staff and the public with mobility needs**. These **barriers can delay or prevent public access to essential police services** and limit internal accommodation options, reducing staffing flexibility and employee independence.



Parking Limitations Reduce Public Access

At key VPD facilities, including the Graveley and Cambie Street headquarters, **limited parking restricts public access**. When parking is full, **time-sensitive needs may be delayed or impossible**, affecting timely reporting, investigative continuity, and service accessibility, **especially for those with mobility challenges**.



Insufficient Training Space Affects Readiness

Limited classroom and training space across VPD facilities is **creating bottlenecks in delivering required and specialized training**. As demand increases, members cannot consistently access timely certification, recertification, or advanced skills development. This **reduces operational readiness and creates gaps** in applying current best practices, **impacting investigative quality, compliance, and public service delivery**.

This limits public access and workforce readiness, undermining timely, consistent, and effective police service delivery.

SERVICE IMPACTS

Deteriorating operational facilities shift the burden to workarounds, reactive repairs, and stop-gap fixes — raising costs and reducing efficiency.



Stanley Park Service Yard

A DECADE OF DEFERRED PLANS

Stanley Park Service Yard

Park Board — Service Operations

Slated for redevelopment in the 2010s, investments were paused for 10 years as assets aged. 180 employees work amid frequent roof, HVAC, and electrical failures managed only through reactive repairs. Redevelopment plans were updated in 2023, and additional funding was required in 2024 to address critical deferred maintenance.



Manitoba Service Yard – FMS Garage

OPERATIONALLY OBSOLETE

Engineering Yards (Manitoba / National)

Engineering Services

Manitoba Yard facilities were built in the 1960s and were not designed for current operational needs and equipment. Major site-wide systems are at end-of-life and require upgrades. National Yard's power capacity is maxed — staff must choose between air conditioning and EV charging. Seismic concerns for emergency response.



IMPACTS TO ESSENTIAL MUNICIPAL SERVICES

City Hall – built 1936

Administrative facility

City Hall is nearly 100 years old and requires significant upgrades to spaces and building systems. Many systems are outdated, accessibility is limited, energy systems need improvement, and HVAC systems have exceeded their useful life and require replacement. City officials and staff rely on City Hall to deliver services essential to City operations.

When staff facilities deteriorate, the burden shifts to workarounds, complaint response, and stop-gap fixes — raising costs and reducing efficiency.

How We Are Prioritizing Response



Structured Risk Lens

REFM works **collaboratively** with other City departments to prioritize capital investments by balancing asset condition, risk of failure, service and life-safety importance, regulatory obligations, strategic and Council direction, funding constraints, contractual requirements, and public outcomes.

While high-level indicators such as the **Facility Condition Index inform decision-making, they are complemented by detailed evaluations of safety impacts, operational reliance, regulatory risk, and service delivery alternatives** to ensure scarce capital resources are focused on the most critical needs.

To further strengthen this approach, REFM is advancing the development of an **Asset Management Plan and Framework** to provide a consistent and disciplined foundation for infrastructure investment decisions.



Investment decisions are structured around risk — not first-come, first-served.

How We Are Prioritizing Response



Operational impact assessment

Facilities staff collaborate and engage with other city departments to understand how **building condition** affects program delivery and to time **renewals around operational realities**.

This ensures limited resources are directed to projects that **reduce the greatest risks to residents and operations** — and that renewal timelines respect the **service commitments** of other departments.



Building renewal is a shared responsibility — REFM works with other departments to align priorities.



Disciplined Sequencing

Not all needs can be addressed at once. By sequencing projects to align with available funding and **prioritizing assets with the highest operational/service impacts**, the City aims to stabilize the portfolio, reduce the likelihood of catastrophic failure, and protect essential services.

This means some assets with lower operational/service impacts must wait — a deliberate trade-off that is **managed transparently and reassessed** as conditions and resources change.



Sequencing is not about doing less — it's about doing the most important things first.

Addressing Key Risks

Targeted strategies allow us to address climate shocks and stresses, as well as regulatory related issues and asset integrity all while enhancing resilience, increasing public safety, and improving operational efficiency.



Air Handling Unit at end of life

CRITICAL SYSTEMS & INFRASTRUCTURE RISKS

When **key building systems fail** or **cannot meet building needs**, users and **service delivery are impacted**. Upgrades to **electrical systems** adds capacity to install **cooling** and EV charging needed at most **Fire Halls**. **HVAC upgrades** address **increasing cooling loads** in civic buildings as **peak temperatures rise**. Renewals prevent break-downs of **elevator** systems that can restrict building **accessibility** for months. **Roofing, heating, and piping system** failures can **close facilities** and planned renewals prevent **damage and closures**.

Timely repairs or renewals of critical building systems are required to maintain service operations.



REGULATORY, LIFE SAFETY & OHS RISKS

Planned improvements at the time of equipment renewal across ice rinks to **reduce ammonia charges** to a target of less than 200 lbs. per ice sheet — meeting **regulatory requirements** for aging recreation sites and reducing risks. Life Safety systems like **fire alarms** are becoming **obsolete** sooner, **parts** cannot be obtained, and systems **cannot be repaired** when **components fail**. This **impacts building operations** since they must implement manual fire watches, and this **increases risks for occupants** and services.

Ammonia reduction protects public safety while extending the operational life of critical recreation infrastructure.



Vancouver Aquatic Centre Netting

STRUCTURAL AND BUILDING INTEGRITY RISKS

VAC **structural and building integrity** issues have been **known since the 1980s**. The **building's design** created **major structural problems**, corrosion, deterioration, and **long-term safety concerns**. While major capital repairs and "temporary" safety measures installed over the last two decades **mitigate risks for users**, repairs alone cannot address the **increasing long-term problems**. Since 2021, **structural engineers** inspect the facility **annually** to **assess** if the building is **safe to operate** and what **urgent works** must be done until it is **replaced**.

Ongoing and recurring assessment and mitigation programs are required to reduce risk until facilities can be renewed.

Key Takeaway

Aging buildings are creating growing service delivery risk.



Meaningful progress requires a sustained leadership focus, strong cross-department partnerships, prioritization, and consistent **long-term** investment anchored in disciplined asset management.



Ongoing communication about **risks and trade-offs** is critical to preserving public trust and accountability.

Considerations

- Increase Council-approved infrastructure levy from 1% → 2%
- Right-size the asset portfolio
 - Consider co-location and consolidation
 - Fewer & Fit for purpose facilities = improved operational and \$\$ efficiencies, more programming opportunities and enhanced service outcomes

Thank you

VanStat — City Buildings: Asset Condition & Service Delivery Risk