

2024

Glenwood Manor - Condominium Corporation No. 8110119



Authors:

Susan Eyre & Alan Eyre



April 15, 2024

Cheryl Northey
Property Manager
Quest For Time
904 & 908 Memorial Drive NW,
Calgary, Alberta
T2N 3C9

Dear Cheryl :

Re: Reserve Fund Study for Condominium Corporation No. 8110119 - 904 & 908 Memorial Drive NW

Pursuant to your request for a Reserve Fund Study for Glenwood Manor located at 904 & 908 Memorial Drive NW , Calgary, Alberta, we have prepared and submitted this report.

This report of the Reserve Fund Study describes the reserve fund concepts and major reserve fund items. It provides current and future replacement reserve estimates and presents three reserve funding options. The Reserve Fund Study is a complex document and should be reviewed in detail and within the context of this report.

The report recommends that a reserve fund plan and strategy be adopted and implemented.

As outlined in this report, the funding level chosen will determine the level of risk of a special assessment at any given time. Higher funding levels generally result in a lower risk of a special assessment. It is our opinion that any of the three funding options presented will provide adequate funds, within the 30-year study period, to repair or replace common elements or assets of the Corporation.

We appreciate the opportunity to perform this Reserve Fund Study for you and would be pleased to provide you with complete review and updating services for the reserve fund of the Corporation, as required in the future.

If you have any questions, please do not hesitate to contact me at:

Phone: 587-832-6161

E-mail: susan@eyre.consulting

Yours truly,



Susan Eyre, B. A., B. Comm., CPM, CRP
eyre.consulting Inc.

CERTIFICATION

Eyre.consulting Inc. certifies that it is authorized to conduct reserve fund studies, as described in Section 21(2) and 21.1(1) of the Province of Alberta Condominium Property Regulation.

Eyre.consulting Inc. further certifies that there are no grounds of disqualification under section 21.1 or 21.2 of the Province of Alberta Condominium Property Regulation.

Susan Eyre holds a valid ***Certified Reserve Planner designation (CRP)*** (2016) from the Real Estate Institute of Canada (REIC). She also holds a Certified Property Manager (CPM) (1992) designation. Susan earned her Bachelor of Arts and a Bachelor of Commerce degree from the University of Alberta. She has worked in the property management industry since 1986, managing condominiums and commercial buildings. She is experienced in both the physical and financial operations of property management including the inspection and coordination of maintenance, repairs and replacements of property components, the preparation and implementation of operating budgets, the implementation of capital budgets, financial reporting to ownership and enforcement of by-laws.

Alan Eyre has been assisting Susan in the preparation of the reserve fund studies since 2016. Alan received a Bachelor of Science in Engineering degree from the University of Alberta in 1993 and an Architectural Technologies (AT) diploma with Honours from SAIT in 2017. Alan has practical amateur experience in various construction disciplines along with the theoretical knowledge from the AT diploma.

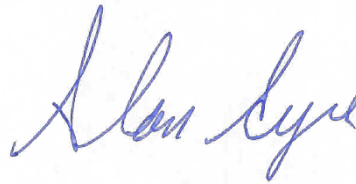
We have personally inspected the property, interviewed members of the board (or their representative if members were unavailable or unwilling), interviewed others as necessary, and examined the documents provided. To the best of our knowledge and belief, the information and data used herein are true and correct.

The Reserve Fund Study and Report complies with Section 23 (1), (2), & (3) of the Province of Alberta Condominium Property Regulation.

Dated April 15, 2024



Susan Eyre B. A., B. Comm., CPM, CRP
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Alan Eyre B.SC. Engineering- EE, AT
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Report Template Revision: 1.8.1

Report Builder Revision: r1.39

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1 EXECUTIVE SUMMARY OF FACTS, CONCLUSIONS & RECOMMENDATIONS

This executive summary has been prepared as a quick reference of pertinent facts and estimates of this Reserve Fund Study, and it is provided as convenience only. Readers are advised to refer to the full text of this Reserve Fund Study for detailed information.

1.1 PROJECTION FACTORS

Construction Inflation Factor	4.5%
Investment Rate (simple average)	4.2%

1.2 FUNDING OPTIONS

The planner's funding options, set out below and detailed in this report, will assist the Corporation to achieve and maintain an adequate reserve fund. In our opinion, any of the three options presented below, which show the annual contributions, any special assessments, and earned investment income, will adequately fund immediate and future reserve fund expenditures. However, the Moderate Funding option (in the early years) and the Critical Year option carry an elevated risk of special assessments within and, potentially, beyond the study period.

The annual **reserve fund contribution (RFC)** for the current year and the recommended contributions for each model for the next 5 years are shown in the tables below. *(The increases suggested below apply to the reserve fund contributions, not to the entire condominium budget (i.e. operating budget). For an example of the impact to condominium fees, see [note 5](#) at the end of this document.)*

Table 1 - Current (Planned) RFC & Recommended RFC for the Next 5 Years – Benchmark Model

Year	Recommended RFC	Increase over previous year	Special Assessment
2024	\$58,370		\$173,710
2025	\$58,370	0.00%	\$0
2026	\$60,768	4.11%	\$0
2027	\$74,911	23.27%	\$0
2028	\$75,771	1.15%	\$0
2029	\$76,421	0.86%	\$0

Table 2 - Current (Planned) RFC & Recommended RFC for the Next 5 Years – Moderate Model

Year	Recommended RFC	Increase over previous year	Special Assessment
2024	\$20,000		\$0
2025	\$24,000	20.00%	\$0
2026	\$28,800	20.00%	\$0
2027	\$33,984	18.00%	\$0
2028	\$40,101	18.00%	\$0
2029	\$47,319	18.00%	\$0

Table 3 - Current (Planned) RFC & Recommended RFC for the Next 5 Years – Critical Year Model

Year	Recommended RFC	Increase over previous year	Special Assessment
2024	\$20,000		\$0
2025	\$23,000	15.00%	\$0
2026	\$26,450	15.00%	\$0
2027	\$30,418	15.00%	\$0
2028	\$34,980	15.00%	\$0
2029	\$40,227	15.00%	\$0

See the full contribution schedules in [section 6](#) for the remaining contribution values and increases.

1.3 NOTABLE IMPENDING EXPENDITURES

The following table provides some insight as to the total expenditures for the current year and the following 5 years, along with a brief description of the constituent components for the year's expenditure.

Table 4 - Upcoming Expenditures

Year	Expenditure	Items
2024	\$11,600	Windows - Main Building, Reserve Fund Study
2025	\$52,189	Blown-In/Batt Attic Insulation, Sealants, Domestic Hot Water Heater, Carpet, Hardwood Floor - Refinishing, Painting - 10 Year Cycle, Painting - 20 Year Cycle, Plaster
2026	\$82,453	Brick, Doors - Wood - Exterior, Wood Components - Painting, Intercom, Heaters - Cast Iron Radiators, Fencing - Wood (Old Section)
2027	\$18,845	Domestic Hot Water Circulation System
2028	\$245,283	Repair Settled Piles – Rear Veranda, Windows - Veranda, Veranda Rehab - SWDT, Baseboard & Ceiling Moulding, Laundry Equipment, Miscellaneous, Fencing - Brick, Concrete, & Iron
2029	\$24,319	Sump Pumps, Water Softener System, Fire Alarm - 10 Year Components, Concrete, Railings - Wrought Iron, Reserve Fund Study

Note, these items should be repaired or replaced if/when they require such action and not just because they appear in the Cash Flow Projection & Benchmark Analysis at a specific time. Some items may require attention sooner or later than this study projects. Regular inspections by qualified individuals may be required to make that determination.

1.4 ADDITIONAL RECOMMENDATIONS

The following list presents various recommendations which, if followed, will help protect the value of the property.

- The Corporation should prepare and implement a long-term reserve fund strategy using the reserve fund study report and any other relevant reports or information as inputs.
- The reserve funds should be placed in an interest-bearing bank account or invested in guaranteed securities or invested in other investments authorized under the Condominium Property Regulation or a combination of these options. Care should be exercised regarding investment risk.
- The Condominium Property Regulation requires that operating funds and reserve funds not be co-mingled except for transfers from reserve funds to operating funds for the purpose of making payments for reserve expenditures.
- The Corporation should make expenditures, as necessary and prudent, to maintain the safety and value of the property. Keep a good record of those expenditures and provide those details to your next study provider.
- It may be appropriate to hire specialists such as a roof consultant or a building envelope consultant prior to the next reserve fund study to provide a thorough review of your project and identify potential defects that should be addressed in the study. If you do this, make these reports available to your next study provider.

- The reserve fund plan should be reviewed every year to ensure that the underlying assumptions are still valid and that the estimates remain current.
- The Corporation should update the Reserve Fund Study at least every 5 years. It may be appropriate to request a study update if a major component has been replaced earlier than the study projected. An example of an early replacement would be an insurance claim roof replacement.

1.5 ADDITIONAL TABLES

The board requested that additional tables be included which remove the cost of the veranda piles repair. These tables can be found at the end of the report in [Appendix B](#).

2 PROPERTY DESCRIPTION

This section provides some basic information describing the property, its location, and its financial status regarding the reserve fund.

2.1 LEGAL REGISTRATION

Corporation Number: 8110119

2.2 LOCATION

904 & 908 Memorial Drive NW
Calgary, Alberta
T2N 3C9

2.3 OVERVIEW OF PROPERTY

Glenwood Manor is a three-storey, 12-unit, residential building located in the Sunnyside community in NW Calgary. The project was constructed in 1928 and was converted to condominium ownership in 1981. Glenwood Manor was designated as a Provincial Historic Resource in 1997 and a Municipal Historic Resource 2017.

2.4 THE CORPORATION'S FINANCIAL PICTURE

The reserve fund balance at the beginning of the study period is \$350,390.

The current budgeted annual reserve fund contribution is \$20,000.

3 RESERVE FUND STUDY & REPORT EXPLAINED

The purpose of a reserve fund study is to produce a budget for the period of the study for the real & personal property, the common property, and any managed property, of the corporation in accordance with the provisions of the Province of Alberta Condominium Property Act, Section 38(1). Our study analysis projects for at least as long as the longest life item in the study and includes funding for items that are outside the current 30-year window of the study.

A reserve fund study report is a **financial document** (not an engineering document), which presents the findings of the study and should clearly show the financial position of the corporation's reserve account and any [unfunded depreciation](#) of commonly owned real, personal, and managed property ([benchmark shortfall](#)).

3.1 THE PROVINCE OF ALBERTA CONDOMINIUM PROPERTY REGULATION, SECTIONS 23(1), (2), (3)

This reserve fund study and report complies with the reserve fund provisions of the Province of Alberta Condominium Property Regulation, Sections 23(1), (2), (3):

Reserve fund study, report and plan

- 23(1)** The corporation must retain a reserve fund study provider to carry out a study of the depreciating property for the purposes of determining the following:
- (a) an inventory of all of the depreciating property that, under the circumstances under which that property will be or is normally used, may need to be repaired or replaced within the next 30 years or a time period longer than 30 years;
 - (b) the present condition or state of repair of the depreciating property and an estimate as to when each component of the depreciating property will need to be repaired or replaced;
 - (c) the estimated costs of repairs to or replacement of the depreciating property using as a basis for that estimate costs that are not less than the costs existing at the time that the reserve fund report is prepared;
 - (d) the life expectancy of each component of the depreciating property once that property has been repaired or replaced.
- 23(2)** In carrying out the reserve fund study under subsection (1), the reserve fund study provider must also do the following:
- (a) determine the current amount of funds, if any, included in the corporation's reserve fund;
 - (a.1) conduct an on-site visual inspection of all visible components of the depreciating property;
 - (a.2) interview the members of the board;
 - (a.3) interview, to the extent the reserve fund study provider considers necessary, the condominium manager or managers for the corporation, if any, any employees of the corporation or condominium manager, or other person;
 - (a.4) review relevant documents, including the condominium plan, construction documents and maintenance records;
 - (b) recommend the amount of funds, if any, that should be included in or added to the corporation's reserve fund in order to provide the necessary funds to establish and maintain or to maintain, as the case may be, a reserve fund for the purposes of section 38 of the Act.
 - (c) describe the basis for determining
 - (i) the amount of the funds under clause (a), and
 - (ii) the amount in respect of which the recommendation was made under clause (b).
- 23(3)** After the reserve fund study under this section is completed, the reserve fund study provider must prepare and submit to the board a reserve fund report in writing in respect of the study setting out the following:
- (a) the qualifications of that person to carry out the reserve fund study and prepare the report;
 - (b) a signed statement that the person is a reserve fund study provider and no grounds of disqualification under section 21.1 or 21.2 apply;
 - (c) the findings of the reserve fund study in respect of the matters referred to in subsections (1) and (2);
 - (d) any other matters that the person considers relevant.

3.2 REAL ESTATE INSTITUTE OF CANADA (REIC) FUND PLANNING STANDARDS

REIC has established reserve fund planning standards that exceed the regulatory requirements above and are recognized and emulated across Canada. These standards, presented throughout this report, consist of investigations, analyses and calculations that provide realistic and supportable reserve fund estimates.

3.3 RESERVE FUND STUDY ELEMENTS

This reserve fund study comprises the following elements:

- It identifies the reserve components and **estimates** their normal life span and present condition.
- It **estimates** the remaining serviceable years for each of the reserve components and proposes a time schedule for repairs and/or replacement.
- It **estimates** the current replacement cost of the components including the cost of removing worn-out items.
- It projects the future value of current replacement costs using an **estimated** annual inflation rate.
- It projects the future value of current reserve funds compounded at an **estimated** investment rate.
- It calculates current reserve fund contributions required, and to be invested appropriately, to fund future reserve fund expenditures.

The reserve fund study is a practical **guide** to assist the board of directors and/or the property manager to plan budgets and maintenance programs.

3.4 GENERAL CONDITIONS AND ASSUMPTIONS

Reserve fund estimates are subjective. They are based on an understanding of the service life of property components and experience gained from observing properties over time. It must be appreciated that reserve fund budgeting and projections are not exact sciences. They are, at best, prudent provisions for identified common property typical wear items⁴ and some possible contingencies, if or when they arise. The study generally assumes proper installation and maintenance of the components unless obvious defects are readily observed or are reported. The scope of repairs required due to hidden defects is not generally determinable without a more substantial technical investigation and are not generally reserved for outside of a limited scope repair contingency. Reserve fund requirements are subject to change and must be reviewed and modified over time. The Alberta requirement is at least every five years.

3.5 RESERVE FUND PROJECTION FACTORS

Our opinion of what is required to determine future contributions and the future value of expenditures includes estimates of inflation factors and investment rates. Inflation factors and investment rates must be developed on an objective basis and derived from an economic analysis of the marketplace.

The estimated inflation factor and the selected investment rate are powerful factors in projecting reserve fund contributions and requirements. They can vary dramatically over time and must be periodically reviewed to ensure their relevance and accuracy.

Although Alberta regulations require a reserve fund plan to be projected over a fairly long period of time, reserve fund projection factors can only be based on short-term economic conditions because of their volatility over time.

3.5.1 INFLATION FACTOR

Inflation measurement in reserve fund projections must be based on construction indices rather than the widely quoted Consumer Price Index (CPI), which measures the cost of a basket of consumer goods, not construction costs.

Inflation rates for the report were developed using data provided by Statistics Canada. CANSIM is Statistics Canada's key socioeconomic database. Updated daily, CANSIM provides fast easy access to a broad range of the latest statistics available in Canada. *(The published numbers may not reflect the reality experienced in the market.)*

Table 5 - Price Indices of Apartment Building Construction

Year	1995	1996	1997	1998	1999	2000	2001	2002	
Yearly Increase	3.0	0.8	1.9	3.0	2.5	4.4	3.4	2.7	
Year	2003	2004	2005	2006	2007	2008	2009	2010	2011
Yearly Increase	3.1	4.8	6.6	14.1	19.2	11.2	-7.9	-2.6	2.2
Year	2012	2013	2014	2015	2016	2017	2018	2019	2020
Yearly Increase	3.9	1.7	1.4	-0.5	-0.7	1.2	4.9	1.7	4.1
Year	2021	2022	2023	Mean OBC Price Index					
Yearly Increase	28.7	20.7	4.1	Exclude the min & max values			4.5		

The rate of increase based on the price index selected and an analysis of the year-over-year change in prices concludes that a rate of **4.5%** inflation would be prudent.

3.5.2 INVESTMENT RATE

Investment income can be a significant source of revenue for reserve funds; therefore, it is imperative that reserve funds are continuously and prudently invested. Prudent reserve fund investment requires that investments are reasonably matched with anticipated reserve fund expenditures, ensuring reserve fund liquidity. Funds should be invested in a diversified ladder portfolio, which ensures that they are available when needed.

There is a flexible array of investment opportunities available to condominium corporations. Certain investments are insured by the Canada Deposit Insurance Corporation (CDIC) - <https://www.cdic.ca>.

Schedule 2 of the Province of Alberta Condominium Property Regulation defines the authorized investment options. This section of the legislation should be reviewed prior to making any investment decisions.

The ability of condominium corporations to earn the highest return available in the marketplace depends on the expertise of the corporation's financial management and the amount of available funds for investment.

Therefore, the reserve fund planner must consider management policies, the size of the reserve fund available for investment, and the historical investment performance when setting the anticipated investment rate.

The [benchmark](#) calculations and the reserve fund projections assume that reserve fund contributions will be constantly and continuously invested and that the contributions are made as a ***lump sum at the end of the year***.

The investment rate used for this analysis is **4.2%**.

The investment income for each year is determined by the investment rate for that year multiplied by the opening balance of that year. The investment rate is determined by the likely low risk return available in the near-term followed by a potential escalating return further out in time. It is estimated that these rates can be achieved using a combination of a savings account and a ladder GIC approach. The investment rate shown in

the report is a simple average of the report time frame (30 years). The yearly rate can be seen on the cash flow tables.

3.6 IMPACT OF NEGATIVE REAL RATE OF RETURN

When the investment rate is consistently lower than the inflation rate, the real rate of return is negative and component repair/replacement costs rise faster than the invested savings. Consequently, owners must make up this difference by funding it directly. In a positive real rate of return environment, the savings grow faster than the replacement costs and the savings burden is lessened. It is important to understand, however, that inflation works on the entire replacement cost burden while the investment rate is working only on the amount saved. In the early days of a reserve fund, there is typically a large spread between these two values.

4 RESERVE COMPONENT ANALYSIS AND ESTIMATED COSTS

Several important steps are required to produce a reserve fund. One of those steps is to determine the reserve components. This is usually done by a review of the corporation's condominium plan and bylaws. Another step is to visit the site and confirm the presence and condition of the components. After those steps, various life estimates are made, and then a cost analysis of the components is performed.

4.1 PROPERTY INSPECTION & INTERVIEWS

The building and site improvements were inspected on December 1 & 4, 2023 by Susan and Alan Eyre. In addition, discussions regarding the property were held with board member, Sano Stante and property manager, Cheryl Northey.

4.2 COMPONENT CLASSIFICATION

Reserve components in this report are presented in substantially the same way that a building is constructed. We start with the foundation and superstructure, move to the exterior walls, the roof assembly, the electrical & mechanical systems, life safety systems, conveyancing systems, interior improvements, and, finally, the site improvements & services. Components that are not present on the project are omitted; therefore, some category numbers may be skipped.

4.3 LIFE SPAN ANALYSIS

It is important to understand that a life span analysis is a somewhat subjective assessment of the age properties of a reserve component. It tries to predict the service life, estimated age (or effective age), and estimated remaining life of the component. Furthermore, the life span of a reserve component is dependent on factors such as maintenance or extreme conditions.

4.3.1 "LIFE SPAN", "SERVICE LIFE", & "LIFE CYCLE"

The terms "life span", "service life", and "life cycle" are used in this document. They are defined as follows:

- "Life span", or "service life", is the time frame for which a component is expected to function as intended. Its service life may end due to outright failure, pending failure, or obsolescence.
- "Life cycle" is the time frame for which a component will be supported by the manufacturer or maintenance company. Once a component is at the end of its life cycle, otherwise known as "end of life" (EOL), a plan should be made for the replacement of the component. It may still be functioning, but when it fails, it will not be repairable.

4.3.2 NORMAL LIFE SPAN

Normal life span is defined as the period a reserve component is expected to last considering the following factors:

- Industry standard life expectancy,
- Environmental conditions,
- Preventive maintenance,
- Functional obsolescence,
- Life cycle.

4.3.3 EFFECTIVE AGE

The effective age is defined as the relative age of a component within its normal life span, or life cycle, based on several factors:

- Actual age,
- Observed condition,
- Maintenance history,
- Probability of hidden conditions,
- Utilization mode.

4.3.4 REMAINING LIFE

Given a normal life span estimate and a sound estimate of the effective age, the remaining life span of a reserve component is determined by subtracting the effective age from the normal life span.

This does not mean that reserve expenditures should only be made at the end of the remaining life. Reserve expenditures should be made at the “appropriate time” which we define as the time which best maintains occupant & visitor safety and protects common & personal property from damage that would occur from the sudden failure of the component. This exact time can be difficult to determine. However, regular inspections and evaluations by qualified people can narrow it down and provide a risk profile for the various replacement/repair timing options.

4.4 CURRENT COST ESTIMATE

The current cost estimate is defined as the estimated cost to replace a reserve component today. This cost estimate is based on the quantity involved and the installed price, with removal where required. Cost data was obtained from internet research, contractor/supplier interviews, invoices (when available), contractor estimates (when available), and costing databases. For this analysis, RSMeans cost databases were used. Pricing data was adjusted as to time, location, and currency (Canadian Dollars) when appropriate.

All costs are strictly estimates and are subject to confirmation at the time competitive bids are obtained from contractors specializing in the repair or replacement work required.

The following factors have been considered in calculating the repair and replacement cost estimates:

- **Quality of Construction:** Replacement cost estimates assume that work is completed by qualified contractors using current construction techniques and quality materials. Prices include contractors' overhead and profit. The costs of repairs and/or replacements of many reserve components are invariably higher than original building costs when contractors have considerable latitude in planning their work and can utilize economies of scale. In contrast, repair work must frequently be performed within certain constraints. As a result, cost estimates include additional expenses associated with safety installations, noise abatements, limited access, restricted work schedules and the convenience of the occupants.

- **Demolition and Disposal Costs:** The estimates also include provisions for demolition of the existing component and disposal costs. Dumping fees have been rising in recent years. It is believed that environmental regulations will become more stringent in the future, which will further increase disposal costs.
- **GST:** Non-commercial corporations pay GST on purchases without an offset credit; therefore, GST is included in the analysis.
- **Repair Contingency:** Some reserve components are expected to last the life of the property; however, they may require repair over time. It is difficult to forecast the incidence of repairs as it will depend on such things as original construction deficiencies, extreme weather, and maintenance schedules. To deal with these types of reserve components, a repair contingency is established based on a percentage of the total estimated cost of replacement or on a direct cost estimate for the specific expected repairs.
- **Professional Fees:** Professional consulting fees are either included in the cost estimate for the component or presented separately in section 12 of the component list. If the fees would normally be part of the repair or replacement, then it is included in the component cost. If we feel an expert should be consulted before a repair is done, we highlight the expected costs in the professional fees section.

4.5 RESERVE COMPONENT DESCRIPTIONS

The following pages list each reserve fund component in table form and provides the following information:

- **Physical Description:** Provides some basic detail about the component in this project's application.
- **Potential Deterioration:** Provides a moderate level of detail regarding the factors that cause the deterioration of the component.
- **Condition Analysis:** Provides some insight into the condition of the component at the time of the site visit(s).
- **Type of Reserve Allocation:** Provides an explanation of what the allocated amount is for.
- **Life Cycle Analysis/Cost Estimates:** Summarizes the component's life variables, **current cost** to replace or repair, and estimated years the work will be done.

4.5.1.01 - SUBSTRUCTURE - FOUNDATION ELEMENTS & FLOORS

Foundation Elements & Floors		
Physical Description	The building foundation likely consists of steel reinforced site poured concrete footings, floors, walls, and columns.	
Potential Deterioration	Concrete structural components are prone to cracking due to uneven settling. Reenforcing steel corrosion and concrete spalling are typically due to moisture, chemical intrusion, and freezing temperatures.	
Condition Analysis	The visible portions of the foundation structure appeared to be in functional condition. Some minor cracks, exposed voids, and surface spalling were noted at some locations.	
Type of Reserve Allocation	Foundation components are anticipated to last the lifespan of the building. A modest periodic repair contingency has been provided to effect minor repairs and inspections as needed. We recommend that the foundation be inspected by a structural engineer to determine the proper repairs to be done and then do those repairs soon to avoid further deterioration of the foundation.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	1928
	Normal Life Span (repair cycle)	25 years
	Effective Age	19 years
	Remaining Life Span	6 years
	Estimated Year of Work	2030
	Expenditure Type	Repair Contingency
	Expenditure Estimate	\$18,769



Figure 1 - Example of decorative features of the foundation wall and spawl damage due to previous downspout failure.



Figure 2 - Example of foundation walls, floors, columns, and footings.

4.5.1.02 - SUBSTRUCTURE - REPAIR SETTLED PILES – REAR VERANDA

Repair Settled Piles – Rear Veranda		
Physical Description	The rear veranda structure is presumably supported by concrete piers or piles supporting wood columns to the roofline. There is a possibility that the structure is supported by a wood foundation.	
Potential Deterioration	Concrete piles or piers are subject to lifting and settling due to frost heave cycles over the years. They could also settle excessively if they were not designed properly for the soil conditions and expected loads. Wood foundations can settle as well as rot and disintegrate.	
Condition Analysis	The rear veranda structure appears to have settled unevenly which has resulted in racking of the structure causing non-square door and window openings on the east and west elevation and possibly openings at the junction between the main building and the veranda.	
Type of Reserve Allocation	A contingency has been allocated to repair the foundation of the rear veranda by underpinning the columns. This contingency includes engineering fees and repairing the landscaping and building connections.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	1928
	Normal Life Span (repair cycle)	100 years
	Effective Age	96 years
	Remaining Life Span	4 years
	Estimated Year of Work	2028
	Expenditure Type	Repair Contingency
	Expenditure Estimate	\$72,450



Figure 3 - View of the rear veranda.

4.5.2.01 - SUPERSTRUCTURE - BLOWN-IN/BATT ATTIC INSULATION

Blown-In/Batt Attic Insulation		
Physical Description	The attic insulation in the area viewed, was primarily fiberglass batt with a supplemental blown-in insulation.	
Potential Deterioration	Blown-in insulations can settle over time. These insulations can also be degraded due to water leaks and pests such as insects, birds, and rodents. They can also be compressed in isolated locations due to post-construction maintenance. They may also develop mold growth. Fiberglass batt insulations can mold or compress. Mineral wool batt insulation is more robust but can be installed incorrectly resulting in over compression. Pests can also nest in various soft insulation types and cause damage.	
Condition Analysis	There were some disturbed areas and uninsulated knee wall sections. There was also some unused ducting lying on the insulation.	
Type of Reserve Allocation	A contingency is provided for minor repairs to the attic insulation as required.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition Normal Life Span (repair cycle) Effective Age Remaining Life Span Estimated Year of Work Expenditure Type Expenditure Estimate	Various 30 years 29 years 1 years 2025 Repair Contingency \$3,500



Figure 4 - Example of disturbed insulation and surplus ducting.



Figure 5 - Example of uninsulated knee-wall sections.

4.5.2.02 - SUPERSTRUCTURE - FRAMING, ABOVE GRADE FLOORS, & ROOF STRUCTURE

Framing, Above Grade Floors, & Roof Structure		
Physical Description	It is assumed the superstructure of the main building consists of typical solid lumber and steel framing components typical of the time for the floors, walls, and roof.	
Potential Deterioration	Wood products can warp, twist, bend, and rot. Metal products can corrode due to moisture exposure or deflect and crack under excessive loads. Mortar can degrade and disappear. Cementitious materials such as blocks or floors can spall, stain, and crack due to moisture, excessive flexing, and extreme low temperatures.	
Condition Analysis	The condition of the structural components could not be seen directly as they are covered by finishing materials.	
Type of Reserve Allocation	The superstructure is anticipated to last the lifespan of the building; however, a nominal repair contingency is allocated for inspections or minor repairs.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	1928
	Normal Life Span (repair cycle)	100 years
	Effective Age	70 years
	Remaining Life Span	30 years
	Estimated Year of Work	2054
	Expenditure Type	Repair Contingency
	Expenditure Estimate	\$24,570

4.5.3.01 - EXTERIOR WALLS - BRICK

Brick		
Physical Description	The main building is clad in a fluted style clay brick veneer.	
Potential Deterioration	Brick veneers are very durable in general. Precipitation and wind over long time periods can erode the brick and mortar. Excessive moisture can also result in efflorescence as well as freeze effects such as spall of brick faces or the degradation of the mortar. Movement can break brick-mortar bonds and crack bricks.	
Condition Analysis	The brick work appeared to be in good condition, generally. All areas of the building exhibit eroded/missing mortar and cracked or spalled bricks.	
Type of Reserve Allocation	Properly installed and maintained bricks can last the life of the building. A repair contingency is provided for repair or replacement of the brick and mortar periodically. Since matching replacement bricks are likely difficult to find, we advise to maintain mortar and manage water diligently. This repair contingency is based on 25% of the brick area needing attention. If more work is required, then the provision will have to be increased.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	1928
	Normal Life Span (repair cycle)	20 years
	Effective Age	18 years
	Remaining Life Span	2 years
	Estimated Year of Work	2026,2046
	Expenditure Type	Repair Contingency
	Expenditure Estimate	\$35,803



Figure 6 - Example of the general character of the brick facade.



Figure 7 - Example of fluted style clay bricks showing some brick and mortar damage.

4.5.3.02 - EXTERIOR WALLS - DOORS - BUILDING ENTRY REFINISH

Doors - Building Entry Refinish		
Physical Description	The building entry doors will require refinishing periodically to protect the wood and maintain the aesthetic.	
Potential Deterioration	Wood finishes fade, crack, peel, and flake in the presence of high UV, heat, cold, and moisture. The Calgary environment is particularly hard on finishes.	
Condition Analysis	The door finishes appeared to be in good condition.	
Type of Reserve Allocation	An allocation has been made for the periodic refinishing of the interior and exterior entry doors.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	2020
	Normal Life Span	10 years
	Effective Age	4 years
	Remaining Life Span	6 years
	Estimated Year of Work	2030,2040,2050
	Expenditure Type	Replacement
	Expenditure Estimate	\$4,725



Figure 8 - Exterior view of the original hardwood doors with original hardware.



Figure 9 - View of the interior side of the entry door system.

4.5.3.03 - EXTERIOR WALLS - DOORS - BUILDING ENTRY REPAIR

Doors - Building Entry Repair		
Physical Description	This project has two single original hardwood entry doors with dual leaded glass sidelights and clear glass transom lights at the entrances to each side of the building. These doors appear to have their original hardware.	
Potential Deterioration	Exterior doors are affected by environmental factors such as UV exposure, moisture, general wear and tear, misuse, and vandalism. Failure modes include damaged or shrinking seals and weather-stripping, scratched paint, dented slabs, and structural shifts affecting the door frames. Mechanical parts such as hinges, latches, and other hardware can fail through wear and tear.	
Condition Analysis	The doors appeared to be in functional order with only some minor wear and tear on the wood and glass components. Heavy patina was noted on the metal hardware components.	
Type of Reserve Allocation	Since these doors are likely to be retained due to their historical significance and character, a repair contingency allocation has been made for the periodic repair of the existing doors, glass, and hardware as required.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	1928
	Normal Life Span (repair cycle)	25 years
	Effective Age	12 years
	Remaining Life Span	13 years
	Estimated Year of Work	2037
	Expenditure Type	Repair Contingency
	Expenditure Estimate	\$15,288



Figure 10 - Exterior view of the original hardwood doors with original hardware.



Figure 11 - View of woodwork detail of the inner vestibule.

4.5.3.04 - EXTERIOR WALLS - DOORS - METAL

Doors - Metal		
Physical Description	There are two common area exterior metal doors with metal frames, both exit out the rear of the building at the basement level.	
Potential Deterioration	Exterior doors are affected by environmental factors such as UV exposure, weather, and humidity changes. Failure modes include damaged or shrinking seals and weather-stripping, warping of the door slab, and building structural shifts. Doors and frames are also subject to scratching and denting. Mechanical parts such as hinges, latches, and panic hardware can fail through wear and tear.	
Condition Analysis	The doors are protected from the elements except for cold temperatures and were in functional condition. No issues were noted.	
Type of Reserve Allocation	An allocation has been made for the replacement of the doors, frames, handles, and lock sets at the end of the estimated life.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	2013
	Normal Life Span	40 years
	Effective Age	11 years
	Remaining Life Span	29 years
	Estimated Year of Work	2053
	Expenditure Type	Replacement
	Expenditure Estimate	\$3,898



Figure 12 - Example of metal basement exit door.

4.5.3.05 - EXTERIOR WALLS - DOORS - WOOD - EXTERIOR

Doors - Wood - Exterior		
Physical Description	There are exterior wood doors of various styles on the rear of the building.	
Potential Deterioration	Exterior wood doors are affected by environmental factors such as UV exposure, weather, and humidity changes. Failure modes include damaged or shrinking seals and weather-stripping, warping of the door slab or slats, and building structural shifts. Doors and frames are also subject to scratching and denting. Mechanical parts such as hinges, latches, and panic hardware can fail through wear and tear.	
Condition Analysis	These doors are primarily historic and old and have seen extended use. Some doors are sagging, and some have typical wear and tear due to age. Additionally, the frames of some of the doors have shifted due to structural shifts in the fire escape/veranda structure.	
Type of Reserve Allocation	A repair contingency has been made for the refurbishment of the doors, frames, handles, and lock sets at a regular interval on an as needed basis. See "Painting - Wood" for details of painting doors and windows on the veranda.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Various
	Normal Life Span (repair cycle)	10 years
	Effective Age	8 years
	Remaining Life Span	2 years
	Estimated Year of Work	2026,2036,2046
	Expenditure Type	Repair Contingency
	Expenditure Estimate	\$3,809



Figure 13 - Example of unit exit door at the rear of the building.



Figure 14 - Example of veranda partition door and safety door for external basement stairwell.

4.5.3.06 - EXTERIOR WALLS - WOOD COMPONENTS - PAINTING

Wood Components - Painting		
Physical Description	The rear veranda is clad with a painted wood shiplap siding product. The windows on the veranda are trimmed with painted wood trim.	
Potential Deterioration	Weather and UV exposure will cause fading, cracking, and peeling of the stain or paint.	
Condition Analysis	The current paint is at end-of-life but so too are the underlying wood products.	
Type of Reserve Allocation	A provision is made for the periodic repainting of the siding, trim, window frames, and rear doors.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	1928
	Normal Life Span	10 years
	Effective Age	8 years
	Remaining Life Span	2 years
	Estimated Year of Work	2026,2036,2046
	Expenditure Type	Replacement
	Expenditure Estimate	\$20,849

4.5.3.07 - EXTERIOR WALLS - SEALANTS

Sealants		
Physical Description	Sealants are flexible materials that provide a water-resistant seal of the gaps between dissimilar materials. Most projects, including this one, have a variety of areas that require regular sealant updating - windows, doors, wall penetrations, roof penetrations, balcony-wall connections, etc. (Care must be taken to ensure drainage openings are not plugged by sealants on windows and doors.)	
Potential Deterioration	Sealants fail over time with exposure to weather extremes and UV. Organic sealants fail sooner than silicone sealants.	
Condition Analysis	Not all sealants were viewed. The sealants we did look at appeared to be in functional condition.	
Type of Reserve Allocation	An allocation is made for the removal of old sealants, surface preparation, and application of new sealants on a portion of the building on an as needed basis.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition Normal Life Span (repair cycle) Effective Age Remaining Life Span Estimated Year of Work Expenditure Type Expenditure Estimate	Various 5 years 4 years 1 years 2025,2030,2035,2040,2045,2050 Repair Contingency \$2,541



Figure 15 - Example of sealants around the front entrance.

4.5.3.08 - EXTERIOR WALLS - WINDOWS - MAIN BUILDING

Windows - Main Building		
Physical Description	The main building has the original single hung windows with storm windows. Some storm windows are hinged and open in an awning style while some storm windows are retained with external wing clips. These windows are deemed historic and will likely be retained for the foreseeable future.	
Potential Deterioration	Single pane window styles can degrade due to weather and UV exposure. Putty can dry and fail. Glass panes can break. Wood framing can rot. Painting can result in inoperable sliding sashes. Structures can settle unevenly resulting in racking of window frames.	
Condition Analysis	The windows appeared to be in good condition. Some windows did not open when tested. It was very cold during our visit.	
Type of Reserve Allocation	A provision is allocated for a phased replacement with single-hung wood-framed windows with sealed glass units. However, it is likely the original windows will be retained and repaired as part of the principle of retaining as much of the historical material as possible. In that event, the provision should cover those expenses.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	2023
	Normal Life Span	15 years
	Effective Age	1 years
	Remaining Life Span	14 years
	Estimated Year of Work	2038,2053
	Expenditure Type	Phased Replacement
	Expenditure Estimate	\$109,276



Figure 16 - Typical main building windows.

4.5.3.09 - EXTERIOR WALLS - WINDOWS - VERANDA

Windows - Veranda		
Physical Description	The veranda has several styles of historical and modern windows. Most are hinged multi-lite single pane wood framed windows. Some are fixed sealed units, leaded single pane units, and some are awning style sealed units.	
Potential Deterioration	The single pane units in wood frames are subject to frame movement due to weather, UV exposure, and structural movement. Any window putty used can dry, crack, and loosen over time. Sealed units eventually fail and lose energy efficiency and can fog between panes.	
Condition Analysis	The wood frames appeared to be functional in most instances. Some deterioration, such as rot, is likely in the frames. The paint has reached end-of-life.	
Type of Reserve Allocation	A provision is provided for the repair of windows and frames periodically as required. See "Painting - Wood" for details of painting doors and windows on the veranda.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	1928
	Normal Life Span (repair cycle)	10 years
	Effective Age	6 years
	Remaining Life Span	4 years
	Estimated Year of Work	2028,2038,2048
	Expenditure Type	Repair Contingency
	Expenditure Estimate	\$32,644



Figure 17 - Example of rear exterior windows on the veranda.

4.5.3.10 - EXTERIOR WALLS - VERANDA REHAB - SWDT

Veranda Rehab - SWDT		
Physical Description	The rear veranda is clad with a painted wood shiplap siding product and decorative vertical board and batten style decorative accent. (SWDT = Siding, Windows, Doors, & Trim)	
Potential Deterioration	Exterior wood products are affected by moisture and temperature variations that can cause the wood to rot and warp. Engineered wood is more resistant to these stresses than natural wood. As well, UV exposure will cause fading of the stain or paint.	
Condition Analysis	The wood siding on the veranda has reached end-of-life. Some boards may be salvageable.	
Type of Reserve Allocation	A provision is made for the repair or replacement of the majority of wood components as required (siding, window frames, wood doors, and wood trim). There is a potential that reclamation of the boards may be required as much as practicable.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	1928
	Normal Life Span	40 years
	Effective Age	36 years
	Remaining Life Span	4 years
	Estimated Year of Work	2028
	Expenditure Type	Replacement
	Expenditure Estimate	\$44,295



Figure 18 - Example of extensive deterioration of the wood siding.

4.5.4.01 - ROOF ASSEMBLY - SOFFITS

Soffits		
Physical Description	The main building appears to have 3" tongue & groove painted wood soffit boards.	
Potential Deterioration	Wood soffit is subject to rot from excessive moisture and any paint on surface can crack and peel away from the substrate.	
Condition Analysis	The painted surface appeared to be in functional condition. Some board movement was noted in a couple of locations. No other issues were noted or reported.	
Type of Reserve Allocation	An allocation is provided for repainting and the repair or replacement of soffit boards as required.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Unknown
	Normal Life Span (repair cycle)	20 years
	Effective Age	12 years
	Remaining Life Span	8 years
	Estimated Year of Work	2032,2052
	Expenditure Type	Repair Contingency
	Expenditure Estimate	\$13,641



Figure 19 - Example of painted wood soffit boards.

4.5.4.02 - ROOF ASSEMBLY - GUTTERS & DOWNSPOUTS

Gutters & Downspouts		
Physical Description	Gutters and downspouts provide the drainage system for the roof. This building has galvanized k-type gutters and galvanized downspouts.	
Potential Deterioration	Galvanized gutters and downspouts are subject to corrosion and denting.	
Condition Analysis	Some work has been done recently. The gutters and downspouts appeared to be in functional condition. No issues were noted or reported.	
Type of Reserve Allocation	An allocation is provided for the periodic repair of the gutters and downspouts, along with wood fascia, as required.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Various
	Normal Life Span (repair cycle)	20 years
	Effective Age	5 years
	Remaining Life Span	15 years
	Estimated Year of Work	2039
	Expenditure Type	Repair Contingency
	Expenditure Estimate	\$8,401



Figure 20 - View of galvanized gutters and downspouts.

4.5.4.03 - ROOF ASSEMBLY - METAL ROOF - GALVANIZED

Metal Roof - Galvanized		
Physical Description	The main building is capped with the original "Galvanized Spanish Tile" roof which has been renewed at least once. The veranda is protected by a galvanized standing seam roof.	
Potential Deterioration	Metal roofs are subject to oxidation and corrosion. Temperature variations and weather conditions can cause movement of the panels and fasteners. Sealants, fastener gaskets and surface coatings can fail.	
Condition Analysis	The roof was not inspected. It was recently re-done and presumed to have aged normally. No issues were reported by the manager.	
Type of Reserve Allocation	This budget item includes a complete renewal, or replacement, of the metal roof at the end of the estimated life. We recommend yearly inspections and repairs as required to help get the estimated life expectancy. These yearly activities are accounted for in the annual operating budget and not the reserve.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	2021
	Normal Life Span	75 years
	Effective Age	4 years
	Remaining Life Span	71 years
	Estimated Year of Work	Beyond study
	Expenditure Type	Replacement
	Expenditure Estimate	\$415,800



Figure 21 - View of Spanish Tile metal roof shingles.

4.5.5.01 - ELECTRICAL SYSTEMS - EXTERIOR LIGHTING & OTHER ELECTRICAL COMPONENTS

Exterior Lighting & Other Electrical Components		
Physical Description	The building has a variety of exterior electrical components including 2-headed security lights, wall mounted entrance lighting, time clock control, and downspout heat tape.	
Potential Deterioration	Moisture, wind, UV, and extreme temperature swings all have an impact and can erode finishes & seals, stress electrical components and contacts, and affect the structural elements such as aluminum or steel cases. Damage can also occur from impact or vandalism.	
Condition Analysis	The exterior light fixtures appeared to be in functional condition.	
Type of Reserve Allocation	This component includes a complete replacement of the exterior lighting components.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Various
	Normal Life Span	20 years
	Effective Age	10 years
	Remaining Life Span	10 years
	Estimated Year of Work	2034,2054
	Expenditure Type	Replacement
	Expenditure Estimate	\$8,499



Figure 22 - Exterior globe lights.



Figure 23 - Exterior security lighting and doorbell.

4.5.5.02 - ELECTRICAL SYSTEMS - INTERCOM

Intercom		
Physical Description	The building is equipped with a doorbell system.	
Potential Deterioration	Physical wear and tear, weather exposure, electrical component failure, and technological obsolescence are all deterioration factors.	
Condition Analysis	The system is in poor condition. The manager advised that the board and owners are interested in having a fully functional system.	
Type of Reserve Allocation	A provision is made for the technological upgrade of this component at the end of the estimated service life.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Unknown
	Normal Life Span	20 years
	Effective Age	18 years
	Remaining Life Span	2 years
	Estimated Year of Work	2026,2046
	Expenditure Type	Replacement
	Expenditure Estimate	\$5,147



Figure 24 - Doorbell system.

4.5.5.03 - ELECTRICAL SYSTEMS - INTERIOR LIGHTING & OTHER ELECTRICAL COMPONENTS

Interior Lighting & Other Electrical Components		
Physical Description	The building has several types of interior lighting fixtures including basic porcelain holders, fluorescent lighting, track lighting, and both pendant and wall mounted fixtures. There are also a number of electrical outlets, switches, motion sensors, and phone jacks.	
Potential Deterioration	For interior applications, the primary factors that can deteriorate the components are moisture, excessive heat, and power cycling.	
Condition Analysis	The interior lighting and electrical components appeared to be in satisfactory condition.	
Type of Reserve Allocation	An allocation has been made for the phased replacement of these components. The replacement of lamps (bulbs) is considered an operating cost.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition Normal Life Span Effective Age Remaining Life Span Estimated Year of Work Expenditure Type Expenditure Estimate	Various 25 years 11 years 14 years 2038 Phased Replacement \$3,502



Figure 25 - Pendant and wall mounted hallway and stairwell fixtures.



Figure 26 - Pendant and wall mounted fixtures at the front entrance.

4.5.5.04 - ELECTRICAL SYSTEMS - POWER DISTRIBUTION

Power Distribution		
Physical Description	There are a number of components that make up a building's electrical system including the main disconnect, usage meters, house panels, and wiring and conduits.	
Potential Deterioration	Many of the individual electrical components are robust. Some components are susceptible to excessive heat (breakers, transformers); while other components are susceptible to excess wear from repeated use (disconnect switches and fuse clips for example). Circuit breakers are also prone to obsolescence. Wiring, in-building and underground, and conduit is expected to last indefinitely.	
Condition Analysis	This equipment appeared to be in functional condition. No issues were reported by the manager.	
Type of Reserve Allocation	An allocation is made for a partial replacement of some of the more expensive, and more likely to fail or partially fail items.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Unknown
	Normal Life Span (repair cycle)	20 years
	Effective Age	10 years
	Remaining Life Span	10 years
	Estimated Year of Work	2034,2054
	Expenditure Type	Repair Contingency
	Expenditure Estimate	\$6,056



Figure 27 - Power distribution equipment in the basement.

4.5.6.01 - MECHANICAL SYSTEMS - BACKFLOW DEVICES

Backflow Devices		
Physical Description	Backflow prevention devices help protect the public safety by preventing potable water contamination. The building has two backflow prevention devices: one for the domestic water system and one for the boiler feed.	
Potential Deterioration	The working components of a backflow prevention device (seal rings, O-rings, check springs, seats, and poppet assemblies) can fail due to mechanical wear and tear and blockage by sediment or debris in the water. Testing reveals the need for repair and several factors determine whether a repair can be done or if replacement is the best option. Generally, a back-flow device can be repaired as the typical wear items are as above. However, mineral deposits may damage metal parts, or parts may no longer be available, so replacement is either more economical or necessary.	
Condition Analysis	The backflow prevention devices are inspected annually and appeared to be in satisfactory condition.	
Type of Reserve Allocation	An allocation has been made for the complete replacement of the backflow prevention devices at the end of the estimated service life.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition Normal Life Span Effective Age Remaining Life Span Estimated Year of Work Expenditure Type Expenditure Estimate	Various 25 years 13 years 12 years 2036 Replacement \$1,592



Figure 28 - Backflow prevention device.

4.5.6.02 - MECHANICAL SYSTEMS - BOILER

Boiler		
Physical Description	The building is heated by a Weil-McLain 650 MBH cast iron steam boiler.	
Potential Deterioration	The most common cause of boiler deterioration is oxygen and minerals in the water that lead to the deterioration of the metal boiler components. In addition, heat produced by a boiler can cause damage to the components over time. Poor maintenance and cleaning programs can reduce a boiler's lifespan.	
Condition Analysis	The boiler appeared to be in satisfactory condition.	
Type of Reserve Allocation	An allocation has been made for the complete replacement of the boiler (including associated valves, fittings & controllers) at the end of the estimated service life.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	2009
	Normal Life Span	30 years
	Effective Age	15 years
	Remaining Life Span	15 years
	Estimated Year of Work	2039
	Expenditure Type	Replacement
	Expenditure Estimate	\$30,062



Figure 29 - Weil-McLain steam boiler.

4.5.6.03 - MECHANICAL SYSTEMS - DOMESTIC HOT WATER BOILER

Domestic Hot Water Boiler		
Physical Description	Domestic hot water is provided by an AO Smith hot water supply boiler and a 119-gal storage tank (with expansion tank) system.	
Potential Deterioration	Sediment in the water, high heat, and pressure over a period of time will cause the tank liner to crack. Once the liner has been compromised, water comes in contact with the steel tank, and it will begin to rust and leak.	
Condition Analysis	The equipment appeared to be in satisfactory condition.	
Type of Reserve Allocation	An allocation has been made for the complete replacement of the domestic hot water supply boiler, storage tank, and expansion tank at the end of the estimated service life.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	2013
	Normal Life Span	25 years
	Effective Age	11 years
	Remaining Life Span	14 years
	Estimated Year of Work	2038
	Expenditure Type	Replacement
	Expenditure Estimate	\$17,098



Figure 30 - AO Smith hot water supply boiler, storage tank and expansion tank.

4.5.6.04 - MECHANICAL SYSTEMS - DOMESTIC HOT WATER CIRCULATION SYSTEM

Domestic Hot Water Circulation System		
Physical Description	The planner was advised that a combination of galvanized and copper piping is in use to distribute hot water for domestic use throughout the building.	
Potential Deterioration	This piping is subject to rust and corrosion as well as mineral deposits that can accumulate in the piping.	
Condition Analysis	The majority of the domestic hot water supply lines and recirculation lines were not accessible for visual inspection as they were either wrapped or located behind walls or ceilings. Management has advised that as leaks have occurred the galvanized piping has been replaced with copper.	
Type of Reserve Allocation	A contingency for repair or partial replacement of the domestic hot water supply lines, recirculation lines, and associated plaster repairs is provisioned.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition Normal Life Span (repair cycle) Effective Age Remaining Life Span Estimated Year of Work Expenditure Type Expenditure Estimate	Various 10 years 7 years 3 years 2027,2037,2047 Repair Contingency \$16,513



Figure 31 - Copper to galvanized piping along basement ceiling.

4.5.6.05 - MECHANICAL SYSTEMS - DOMESTIC HOT WATER HEATER

Domestic Hot Water Heater		
Physical Description	Domestic hot water is also provided by two Rheems, 50-gal, gas-fired, water heaters.	
Potential Deterioration	Sediment in the water, high heat, and pressure over a period of time will cause the tank liner to crack. Once the liner has been compromised, water comes in contact with the steel tank, and it will begin to rust and leak. Recirculation pumps can fail through mechanical wear and tear and are vulnerable to corrosion.	
Condition Analysis	Although nearing life expectancy, the equipment appeared to be in satisfactory condition.	
Type of Reserve Allocation	An allocation has been made for the complete replacement of the domestic hot water heaters at the end of the estimated service life.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	2013
	Normal Life Span	12 years
	Effective Age	11 years
	Remaining Life Span	1 years
	Estimated Year of Work	2025,2037,2049
	Expenditure Type	Replacement
	Expenditure Estimate	\$9,957



Figure 32 - Rheem domestic hot water heaters.

4.5.6.06 - MECHANICAL SYSTEMS - HEATERS - CAST IRON RADIATORS

Heaters - Cast Iron Radiators		
Physical Description	Heat is distributed through cast iron radiators in each unit and in the common areas. These radiators vary in size depending on the area they are designated to service.	
Potential Deterioration	Cast iron heaters are very robust but can deteriorate due to rust and corrosion. They are subject to cracks from freezing and leaks can develop, particularly around valves.	
Condition Analysis	Although operational, the cast iron heaters have reached industry standard life expectancy. Management has advised that repairs and replacements are undertaken on an as needed basis.	
Type of Reserve Allocation	A contingency is provided for repair or replacement of the cast iron radiators and associated valves and thermostats in the common areas only. The in-suite cast iron radiators are a unit owner responsibility in accordance with the by-laws.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition Normal Life Span (repair cycle) Effective Age Remaining Life Span Estimated Year of Work Expenditure Type Expenditure Estimate	Various 10 years 8 years 2 years 2026,2036,2046 Repair Contingency \$933



Figure 33 - In-suite cast iron radiator.



Figure 34 - Common area cast iron radiator.

4.5.6.07 - MECHANICAL SYSTEMS - HEATING - OTHER COMPONENTS

Heating - Other Components		
Physical Description	Heat is distributed to the radiators through steel piping and condensate from the cooling steam is returned by gravity to the condensate system.	
Potential Deterioration	The working components of a condensate system can fail due to mechanical and electrical wear and tear and blockage by sediment or debris in the water. This steel piping has a very long life but can be affected by corrosion.	
Condition Analysis	The condensate system also appeared to be in functional condition. The heating distribution lines were visible for inspection and appeared to be in functional condition. No issues or concerns were reported by management.	
Type of Reserve Allocation	An allocation is made for the complete replacement of the condensate system (and filter) at the end of the estimated service life. This component also includes a contingency for repair or partial replacement of the heating distribution piping and associated plaster repairs.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Various
	Normal Life Span	20 years
	Effective Age	11 years
	Remaining Life Span	9 years
	Estimated Year of Work	2033,2053
	Expenditure Type	Replacement
	Expenditure Estimate	\$9,770



Figure 35 - Condensate system.



Figure 36 - Steel heating line.

4.5.6.08 - MECHANICAL SYSTEMS - PLUMBING SYSTEM - MISC. COMPONENTS

Plumbing System - Misc. Components		
Physical Description	Plumbing system components include such items as; the domestic cold-water supply lines, drain lines, floor drains, hose bibb, and the janitor sink.	
Potential Deterioration	Plumbing system components can fail due to wear and tear, blockage, misuse, and freeze-ups.	
Condition Analysis	Most of the components were inaccessible for visual inspection as they were located behind walls or under floors. The remaining components appeared to be in functional condition and no issues were reported by the manager.	
Type of Reserve Allocation	A contingency for repair or partial replacement of the plumbing system components has been included.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition Normal Life Span (repair cycle) Effective Age Remaining Life Span Estimated Year of Work Expenditure Type Expenditure Estimate	Various 15 years 5 years 10 years 2034,2049 Repair Contingency \$8,099



Figure 37 - Exterior hose bibb.



Figure 38 - Various drain lines.

4.5.6.09 - MECHANICAL SYSTEMS - SUMP PUMPS

Sump Pumps		
Physical Description	The building is serviced by two sump pumps.	
Potential Deterioration	The working components of a sump pump system can fail due to mechanical and electrical wear and tear and blockage by sediment or debris in the water.	
Condition Analysis	The age of the sump pumps is unknown. One pump was inaccessible for visual inspection and the other appeared to be in functional condition.	
Type of Reserve Allocation	An allocation has been made for the complete replacement of the sump pumps at the end of the estimated service life.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Unknown
	Normal Life Span	10 years
	Effective Age	5 years
	Remaining Life Span	5 years
	Estimated Year of Work	2029,2039,2049
	Expenditure Type	Replacement
	Expenditure Estimate	\$1,972



Figure 39 - Submersible sump pump.

4.5.6.10 - MECHANICAL SYSTEMS - WATER SOFTENER SYSTEM

Water Softener System		
Physical Description	The building is serviced by an EcoSmart water softener.	
Potential Deterioration	The working components of a water softener can fail due to mechanical and electrical wear and tear and blockage by sediment or debris in the water.	
Condition Analysis	The water softener appeared to be in functional condition. No issues were reported by the manager.	
Type of Reserve Allocation	An allocation has been made for the complete replacement of the water softener at the end of the estimated service life.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Unknown
	Normal Life Span	15 years
	Effective Age	10 years
	Remaining Life Span	5 years
	Estimated Year of Work	2029,2044
	Expenditure Type	Replacement
	Expenditure Estimate	\$1,244



Figure 40 - Water softener.

4.5.7.01 - LIFE SAFETY SYSTEMS - FIRE ALARM - 10 YEAR COMPONENTS

Fire Alarm - 10 Year Components		
Physical Description	10-year components in the fire alarm system include the common area smoke detectors, heat detectors, and fire extinguishers.	
Potential Deterioration	Electronic components can degrade over time through regular wear and tear and voltage fluctuations. These components are also subject to technological obsolescence and changes in building and safety codes. In particular, dust, dirt and other contaminants can negatively affect the operation of smoke & heat detectors. Fire extinguishers can corrode or leak over time.	
Condition Analysis	These components appeared to be in functional condition and were last inspected on January 27, 2023, by Sprouse Fire & Safety.	
Type of Reserve Allocation	An allocation has been made for the complete replacement of these components at the end of the estimated service life.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Various
	Normal Life Span	10 years
	Effective Age	5 years
	Remaining Life Span	5 years
	Estimated Year of Work	2029,2039,2049
	Expenditure Type	Replacement
	Expenditure Estimate	\$4,875



Figure 41 - Smoke detector.



Figure 42 - 5lb fire extinguisher.

4.5.7.02 - LIFE SAFETY SYSTEMS - FIRE ALARM - 20 YEAR COMPONENTS

Fire Alarm - 20 Year Components		
Physical Description	The project has a 3-wire fire alarm system. 20-year components in the fire alarm system include the pull stations, bells, exit signage, emergency lighting, and the fire alarm breaker.	
Potential Deterioration	Electronic components can degrade over time through regular wear & tear and voltage fluctuations. These components are also subject to technological obsolescence and changes in building and safety codes.	
Condition Analysis	These components appeared to be in functional condition and were last inspected on January 27, 2023, by Sprouse Fire & Safety.	
Type of Reserve Allocation	An allocation has been made for the complete replacement of these components at the end of the estimated service life.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition Normal Life Span Effective Age Remaining Life Span Estimated Year of Work Expenditure Type Expenditure Estimate	Unknown 20 years 10 years 10 years 2034,2054 Replacement \$9,006



Figure 43 - Shows manual pull station, bell and emergency lighting.



Figure 44 - Exit signage and emergency lighting combo.

4.5.9.01 - INTERIOR IMPROVEMENTS - BASEBOARD & CEILING MOULDING

Baseboard & Ceiling Moulding		
Physical Description	The landings, stairwells, and vestibules are trimmed with wood baseboard and crown moulding.	
Potential Deterioration	Trim deteriorates through wear and tear, particularly from impact damage and from water damage.	
Condition Analysis	The baseboard and ceiling moulding appeared to be in satisfactory condition, with some scuffs & scrapes noted.	
Type of Reserve Allocation	An allocation is made for the refinishing of the existing baseboard and crown moulding, along with a contingency for repair.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Unknown
	Normal Life Span (repair cycle)	15 years
	Effective Age	11 years
	Remaining Life Span	4 years
	Estimated Year of Work	2028,2043
	Expenditure Type	Repair Contingency
	Expenditure Estimate	\$5,642



Figure 45 - Wood baseboard.

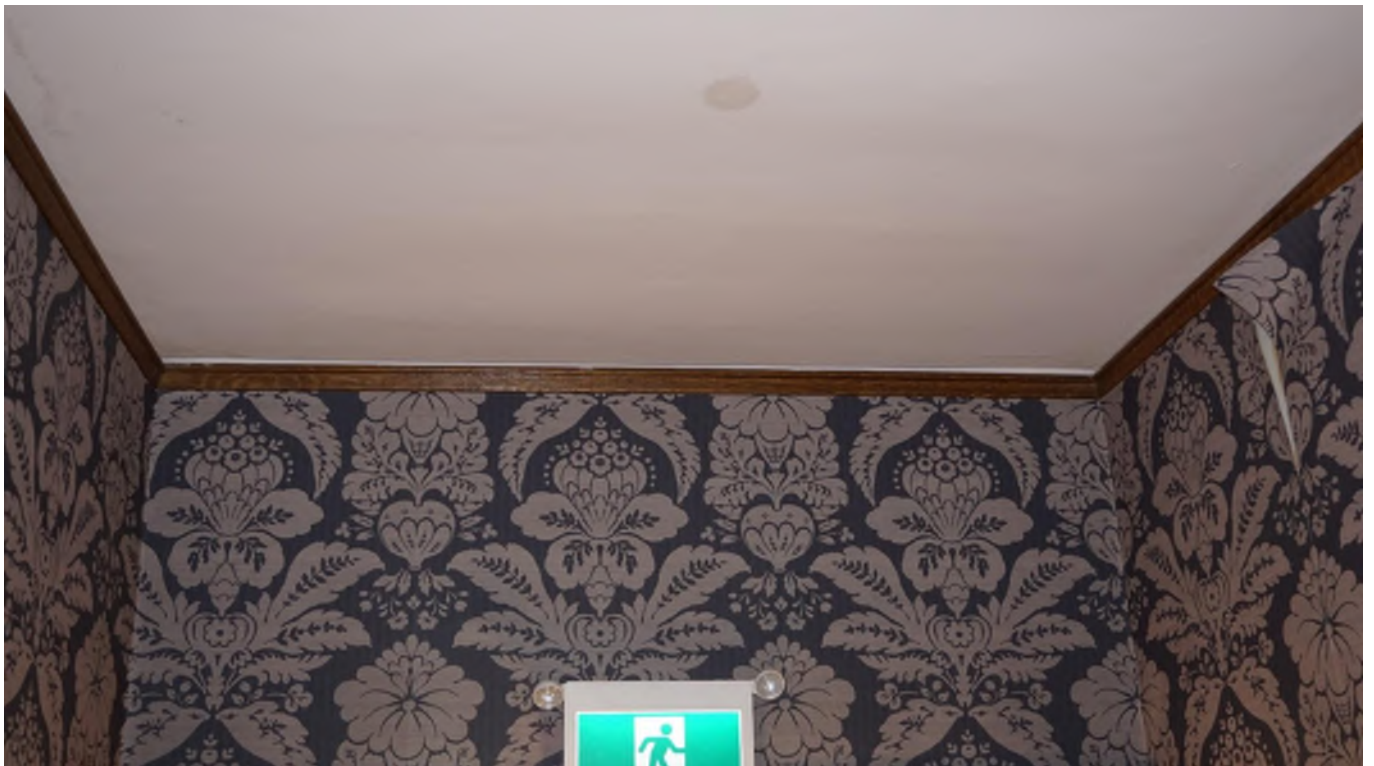


Figure 46 - Wood crown moulding.

4.5.9.02 - INTERIOR IMPROVEMENTS - CARPET

Carpet		
Physical Description	The landings and stairwells in Building 908 are covered in carpet and the attic office is also carpeted.	
Potential Deterioration	Foot traffic causes repeated compression and friction that wears the carpet fibers. Dirt and debris accumulation in the carpet increases the deterioration of the fibers. Regular vacuuming and steam cleaning is critical to maintain carpet life.	
Condition Analysis	The carpet in the attic office appears to be in satisfactory condition and the carpet in Building 908 common areas is reaching end-of-life. The manager advised that the board was considering an interior common area renovation in 2024/2025.	
Type of Reserve Allocation	An allocation is made for the removal and replacement of the carpeting in the attic office at the end of the estimated service life, the removal of the carpet in Building 908 common areas and the installation of stairwell carpet runners in both buildings. No provision has been made for replacement of the existing carpet in the attic.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Unknown
	Normal Life Span	15 years
	Effective Age	14 years
	Remaining Life Span	1 years
	Estimated Year of Work	2025,2040
	Expenditure Type	Replacement
	Expenditure Estimate	\$6,460



Figure 47 - Carpet in Building 908.

4.5.9.03 - INTERIOR IMPROVEMENTS - DOORS

Doors		
Physical Description	The unit doors & attic doors are varnished wood with wood frames. Door hardware includes passage sets (possibly original), deadbolts, and unit numbers. The interior service doors are believed to be painted, hollow core doors with wood frames. Door hardware includes levered handles, passage sets, door closers.	
Potential Deterioration	Interior doors and hardware deteriorate through wear and tear, misuse, and vandalism.	
Condition Analysis	The doors, frames, and hardware appeared to be in satisfactory condition. Scratches and scuffs associated with regular wear and tear were noted.	
Type of Reserve Allocation	This component includes a contingency for repair or partial replacement of the doors, frames, and hardware and refinishing of the varnished wood doors and frames every 15 years.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	1928
	Normal Life Span (repair cycle)	15 years
	Effective Age	8 years
	Remaining Life Span	7 years
	Estimated Year of Work	2031,2046
	Expenditure Type	Repair Contingency
	Expenditure Estimate	\$12,974



Figure 48 - Unit door.



Figure 49 - Service door.

4.5.9.04 - INTERIOR IMPROVEMENTS - FLOOR TILE - GROUT REPLACEMENT/TILE REPAIR

Floor Tile - grout replacement/tile repair		
Physical Description	Mosaic tiles have been used in both entrance vestibules.	
Potential Deterioration	Tiles can have a very long lifespan but are subject to abrasion through repeated foot traffic and dirt accumulation over time. In addition, they can be damaged by heavy impact.	
Condition Analysis	The floor tile appeared to be in satisfactory condition. Only minor tile and grout damage was noted.	
Type of Reserve Allocation	An allocation has been made for the removal and replacement of the grout with a contingency for tile repair.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	1928
	Normal Life Span	15 years
	Effective Age	8 years
	Remaining Life Span	7 years
	Estimated Year of Work	2031,2046
	Expenditure Type	Replacement
	Expenditure Estimate	\$8,023



Figure 50 - Mosaic tile installation.

4.5.9.05 - INTERIOR IMPROVEMENTS - HARDWOOD FLOOR - REFINISHING

Hardwood Floor - Refinishing		
Physical Description	Building 904 has exposed hardwood flooring on the landings and stairwells. Building 908 has hardwood flooring covered by carpet.	
Potential Deterioration	Foot traffic causes repeated friction that wears the wood and the wood finish. Hardwood flooring can also be damaged by moisture. The life of a hardwood floor varies with the amount of traffic. Each floor will have a limited number of refinishes on the wear layer, after which time the floor will have to be replaced.	
Condition Analysis	The hardwood flooring appeared to be in satisfactory condition, with some scuffs & scrapes noted. It is unknown how many re-finishings have been undertaken during the life of the floor. The manager advised that the board was considering an interior common area renovation in 2024/2025.	
Type of Reserve Allocation	An allocation is made for the refinishing of the existing hardwood floor in both buildings, along with a contingency for repair.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition Normal Life Span (repair cycle) Effective Age Remaining Life Span Estimated Year of Work Expenditure Type Expenditure Estimate	Unknown 15 years 14 years 1 years 2025,2040 Repair Contingency \$11,891



Figure 51 - View of the hardwood floor and stairs.

4.5.9.06 - INTERIOR IMPROVEMENTS - STAIRWELL RAILS, POSTS, BALUSTERS - WOOD -
REFINISHING

Stairwell Rails, Posts, Balusters - Wood - Refinishing		
Physical Description	The stairwell rails, posts and balusters are constructed of varnished wood.	
Potential Deterioration	Interior stairwell components can be damaged through wear and tear, impact and water.	
Condition Analysis	The stairwell rails, posts, and balusters appeared to be in satisfactory condition, with some scuffs & scrapes noted.	
Type of Reserve Allocation	An allocation is made for the refinishing of the existing rails, posts, and balusters, along with a contingency for repair.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Unknown
	Normal Life Span (repair cycle)	15 years
	Effective Age	8 years
	Remaining Life Span	7 years
	Estimated Year of Work	2031,2046
	Expenditure Type	Repair Contingency
	Expenditure Estimate	\$7,188



Figure 52 - Stairwell posts and rails in Building 904.

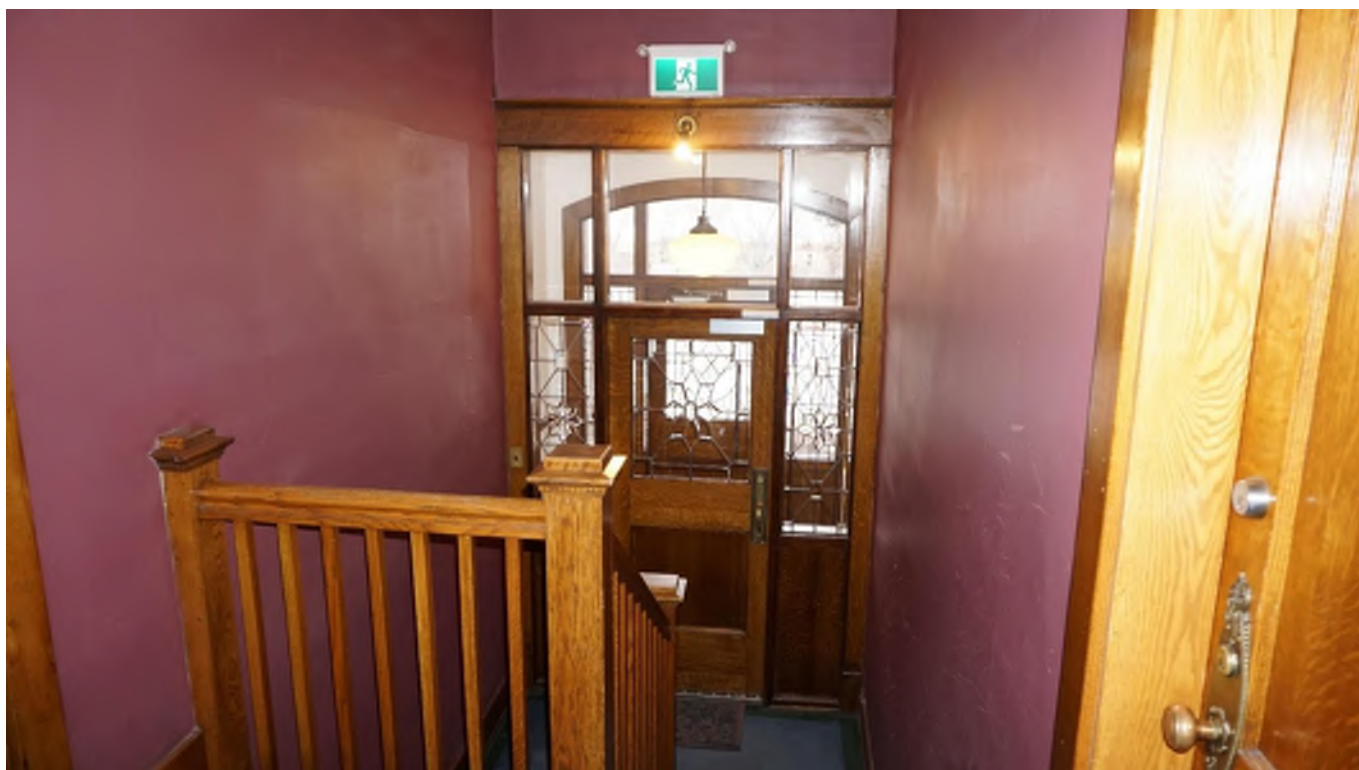


Figure 53 - Stairwell posts and rails in Building 908.

4.5.9.07 - INTERIOR IMPROVEMENTS - LAUNDRY EQUIPMENT

Laundry Equipment		
Physical Description	The laundry equipment is owned by the Corporation and includes four washing machines and four dryers.	
Potential Deterioration	These appliances are susceptible to both mechanical and electrical failures caused by wear and tear and inadequate maintenance. Dryer ventilation piping can be damaged by mechanical shock or become clogged by debris or pests. The exit grill or mesh of these pipes can also break or fall out.	
Condition Analysis	The appliances appeared to be in satisfactory condition. Management advised that two of the washer/dryer sets are from 2013 and two were just recently replaced in 2023.	
Type of Reserve Allocation	This component includes a phased replacement of equipment such that two washing machines and two dryers are replaced every 8 years. It also includes the repair/replacement of the ducting and vent screens.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	2013/2023
	Normal Life Span	8 years
	Effective Age	4 years
	Remaining Life Span	4 years
	Estimated Year of Work	2028,2036,2044,2052
	Expenditure Type	Phased Replacement
	Expenditure Estimate	\$5,349



Figure 54 - Washer & dryer sets.

4.5.9.08 - INTERIOR IMPROVEMENTS - MAILBOX

Mailbox		
Physical Description	A 6-box front load mailbox is located in each front entrance vestibule.	
Potential Deterioration	Normal wear and tear on the box hinges can lead to deterioration of the mailbox. They can also be scratched and dented by impact.	
Condition Analysis	The mailboxes appeared to be in good condition with no issues reported by management. Some minor scratching around the lock and glue debris was noted.	
Type of Reserve Allocation	An allocation is made for the complete replacement of the mailboxes at the end of the estimated service life.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Unknown
	Normal Life Span	30 years
	Effective Age	10 years
	Remaining Life Span	20 years
	Estimated Year of Work	2044
	Expenditure Type	Replacement
	Expenditure Estimate	\$2,916



Figure 55 - Front load mailbox.

4.5.9.09 - INTERIOR IMPROVEMENTS - MISCELLANEOUS

Miscellaneous		
Physical Description	Miscellaneous components include the chain link lockers in the basement.	
Potential Deterioration	Under indoor conditions these components are long lasting but can be damaged by impact and vandalism.	
Condition Analysis	The chain link lockers appeared to be in satisfactory condition.	
Type of Reserve Allocation	This component includes a contingency for repair or partial replacement of miscellaneous components every 15 years.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	2013
	Normal Life Span (repair cycle)	15 years
	Effective Age	11 years
	Remaining Life Span	4 years
	Estimated Year of Work	2028,2043
	Expenditure Type	Repair Contingency
	Expenditure Estimate	\$905



Figure 56 - Chain link storage lockers.

4.5.9.10 - INTERIOR IMPROVEMENTS - PAINTING - 10 YEAR CYCLE

Painting - 10 Year Cycle		
Physical Description	Interior components requiring painting on a 10-year cycle include: - walls on the landings, stairwells, and vestibule in Building 908	
Potential Deterioration	Paint can fail because of inadequate surface preparation or poor installation, water damage and deterioration through wear and tear, misuse, and vandalism.	
Condition Analysis	Damage was noted on the painted walls, including scuffs & scratches, and some bubbling or peeling. The manager advised that the board was considering an interior common area renovation in 2024/2025.	
Type of Reserve Allocation	This component includes preparation and painting on a 10-year cycle. No provision has been made for repainting of the walls in the attic.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Unknown
	Normal Life Span	10 years
	Effective Age	9 years
	Remaining Life Span	1 years
	Estimated Year of Work	2025,2035,2045
	Expenditure Type	Replacement
	Expenditure Estimate	\$7,439



Figure 57 - Paint on the stairwell and landing to the attic floor in Building 908.

4.5.9.11 - INTERIOR IMPROVEMENTS - PAINTING - 20 YEAR CYCLE

Painting - 20 Year Cycle		
Physical Description	Interior components requiring painting on a 20-year cycle include: - ceilings on the landings, stairwells, and vestibules - basement and interior attic doors	
Potential Deterioration	Paint can fail because of inadequate surface preparation or poor installation, water damage and deterioration through wear and tear, misuse, and vandalism. Ceilings, in particular, can become discolored due to accumulation of pollutants.	
Condition Analysis	Overall, these components appeared to be in satisfactory condition. Some water staining and pollutant accumulation was noted.	
Type of Reserve Allocation	This component includes preparation and painting on a 20-year cycle. No provision has been made for the repainting of the ceilings in the attic.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Unknown
	Normal Life Span	20 years
	Effective Age	19 years
	Remaining Life Span	1 years
	Estimated Year of Work	2025,2045
	Expenditure Type	Replacement
	Expenditure Estimate	\$2,860



Figure 58 - 3rd floor ceiling.

4.5.9.12 - INTERIOR IMPROVEMENTS - PLASTER

Plaster		
Physical Description	The hallway and stairwell walls and ceilings are constructed of plaster that has either been painted or wallpapered.	
Potential Deterioration	Plaster can be damaged by moisture, impact, and structural movement.	
Condition Analysis	The plaster appeared to be in satisfactory condition. Damage associated with regular wear and tear in high traffic areas was noted as well as some minor water staining.	
Type of Reserve Allocation	This component includes a contingency for repair or partial replacement of the wall and ceiling plaster in conjunction with the painting/wallpapering cycle.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	1928
	Normal Life Span (repair cycle)	10 years
	Effective Age	9 years
	Remaining Life Span	1 years
	Estimated Year of Work	2025,2035,2045
	Expenditure Type	Repair Contingency
	Expenditure Estimate	\$5,294

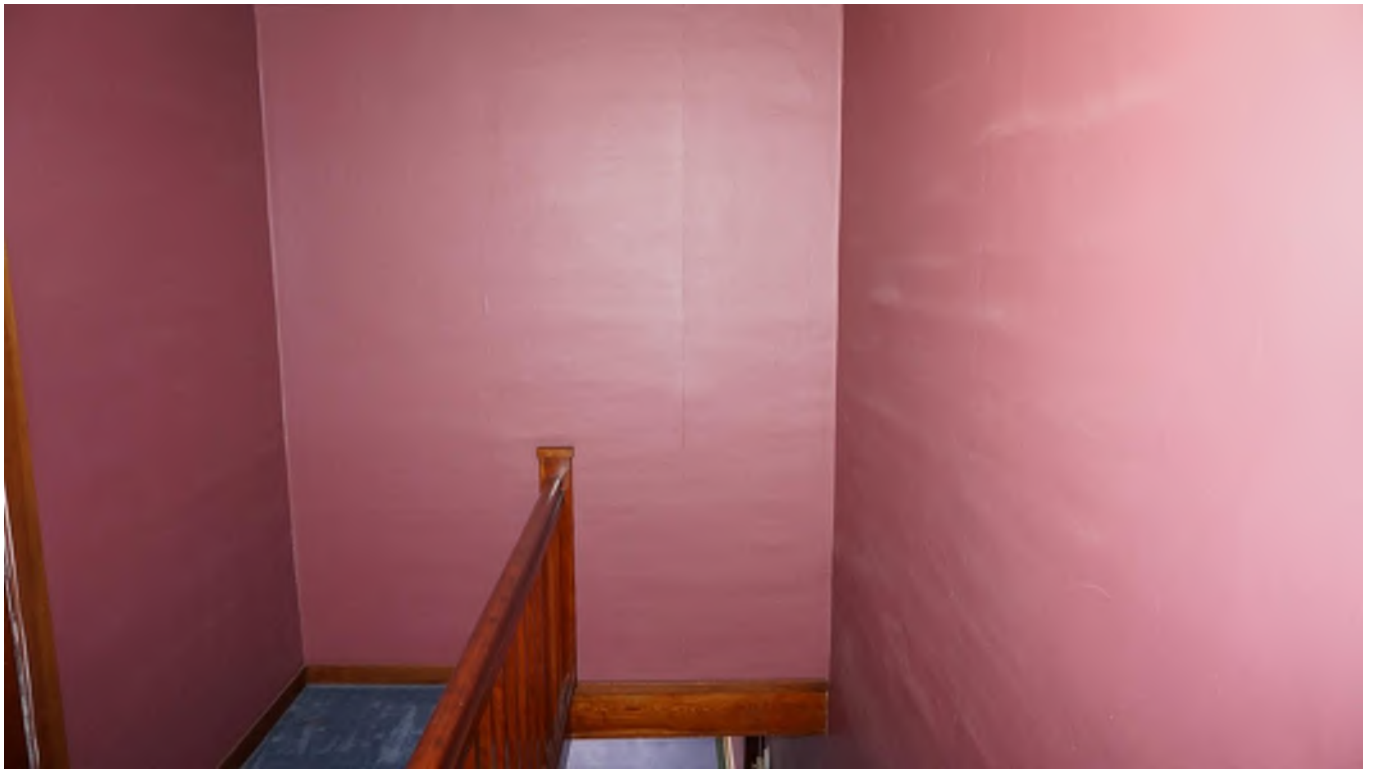


Figure 59 - Painted plaster walls on the attic floor.



Figure 60 - Painted plaster ceiling and wallpapered walls.

4.5.9.13 - INTERIOR IMPROVEMENTS - WALLPAPER

Wallpaper		
Physical Description	The hallways and stairwell walls are covered by wallpaper in Building 904.	
Potential Deterioration	Wallpaper can fail because of inadequate surface preparation or poor installation, high humidity, water damage, and deterioration through wear and tear, misuse, and vandalism.	
Condition Analysis	Overall, the wallpaper appeared to be in satisfactory condition, however, some peeling, scrapes and scratches were noted.	
Type of Reserve Allocation	This component includes wallpaper replacement of a 20-year cycle.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Unknown
	Normal Life Span	20 years
	Effective Age	10 years
	Remaining Life Span	10 years
	Estimated Year of Work	2034,2054
	Expenditure Type	Replacement
	Expenditure Estimate	\$21,940



Figure 61 - Wallpaper in Building 904.

4.5.10.01 - SITE IMPROVEMENTS - CONCRETE

Concrete		
Physical Description	Exterior concrete includes sidewalks, patios, stairs & landings, and parking stops.	
Potential Deterioration	Concrete can fail for several reasons: incompatible constituent chemistry, incompatible chemistry of the surrounding terrain, too much moisture in initial concrete, overworking concrete during finishing (same as too much moisture), short drying times, improper base preparation, inadequate reinforcement, inadequate cured strength specification, and premature loading of the concrete are just some of the common contributors to the premature failure of concrete. Once the concrete's surface has been broken, it is susceptible to water penetration through cracks in the slab and through improper drainage where sidewalks or stairs abut to a building. Water penetrates through these areas and expands during freezing weather. Expanding ice can often exceed the tensile strength of the concrete. While most deicing salts do not chemically react with the concrete, the use of deicing salts can exacerbate a failed concrete problem by increasing the pressure exerted by the salt ice. Deicing salts can also accelerate reinforcing steel corrosion which can crack or spall the concrete depending on the steel's location. Concrete can also be damaged by tree roots and impact by exceeding the concrete's tensile strength.	
Condition Analysis	The condition of the concrete items varies with the particular item. The front sidewalks and stairs appeared to be in good condition. Although functional, cracking was noted on the front landings and cracking and pitting was noted on the rear sidewalks and patio area.	
Type of Reserve Allocation	Complete replacement of these components is not typically required; however, a contingency for repair or partial replacement is included for each cycle.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition Normal Life Span (repair cycle) Effective Age Remaining Life Span Estimated Year of Work Expenditure Type Expenditure Estimate	Various 20 years 15 years 5 years 2029,2049 Repair Contingency \$5,954



Figure 62 - Concrete sidewalk, steps, and landing



Figure 63 - Rear concrete patio.

4.5.10.02 - SITE IMPROVEMENTS - DRIVEWAY - GRAVEL

Driveway - Gravel		
Physical Description	There is a gravel parking area located at the rear of the property.	
Potential Deterioration	Graveled areas can be damaged by weather conditions and wear and tear from vehicles. They are subject to ruts and potholes and require regular top dressing.	
Condition Analysis	The parking area appeared to be in satisfactory condition.	
Type of Reserve Allocation	Complete replacement of this component is not typically required; however, a contingency for repair and top dressing has been included.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	2017
	Normal Life Span (repair cycle)	20 years
	Effective Age	7 years
	Remaining Life Span	13 years
	Estimated Year of Work	2037
	Expenditure Type	Repair Contingency
	Expenditure Estimate	\$1,348



Figure 64 - Graveled parking area

4.5.10.03 - SITE IMPROVEMENTS - FENCING - BRICK, CONCRETE, & IRON

Fencing - Brick, Concrete, & Iron		
Physical Description	The front and east side of the property are fenced with brick columns with concrete caps and decorative concrete finials, concrete retaining walls, and decorative iron fence segments between the columns.	
Potential Deterioration	Exterior metal products and finishes are exposed to moisture and UV which can cause faded finishes and corrosion. Welded or bolted joints can lose their integrity. These components can also be damaged by impact or other forces not typically present such as people walking or hanging upon the components. Brick columns along with concrete walls and footing can tilt, crack, or spall.	
Condition Analysis	The wrought iron exhibits significant corrosion and some deformation or leaning. The brick columns are in various states of deterioration with some in reasonable condition while others are cracking and/or tilting. The concrete retaining wall has cracks, chips, and areas of spall.	
Type of Reserve Allocation	This allocation is for a periodic repair of brick, concrete, and iron fence components.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	1928
	Normal Life Span (repair cycle)	100 years
	Effective Age	96 years
	Remaining Life Span	4 years
	Estimated Year of Work	2028
	Expenditure Type	Repair Contingency
	Expenditure Estimate	\$44,400



Figure 65 - Front gate and columns.



Figure 66 - Significant deterioration of a column at the northeast corner.



Figure 67 - Some leaning of the metal fence.



Figure 68 - Example of metal corrosion and mortar cracking typical on the fence.

4.5.10.04 - SITE IMPROVEMENTS - FENCING - WOOD (NEW SECTION)

Fencing - Wood (New Section)		
Physical Description	A wood fence, with three gates, separates the main floor patio area from the parking area and creates a garbage enclosure.	
Potential Deterioration	Precipitation and UV will rot and discolor exterior wood components. Boards can twist, warp and sag. These components are also subject to impact damage, particularly if they border driving and parking areas or heavily used walkways.	
Condition Analysis	This section of wood fencing appeared to be in good condition.	
Type of Reserve Allocation	An allocation has been made for the complete replacement of the fence, gates, and posts at the end of the estimated service life.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	2017
	Normal Life Span	25 years
	Effective Age	7 years
	Remaining Life Span	18 years
	Estimated Year of Work	2042
	Expenditure Type	Replacement
	Expenditure Estimate	\$15,018



Figure 69 - Wood fencing bordering the parking area.

4.5.10.05 - SITE IMPROVEMENTS - FENCING - WOOD (OLD SECTION)

Fencing - Wood (Old Section)		
Physical Description	A wood fence borders the west side of the property.	
Potential Deterioration	Precipitation and UV will rot and discolor exterior wood components. Boards can twist, warp and sag. These components are also subject to impact damage, particularly if they border driving and parking areas or heavily used walkways.	
Condition Analysis	This section of wood fencing is nearing life expectancy. There is evidence of rotted and discolored wood, along with sagging and twisting.	
Type of Reserve Allocation	An allocation has been made for the complete replacement of the fence and posts at the end of the estimated service life.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Unknown
	Normal Life Span	25 years
	Effective Age	23 years
	Remaining Life Span	2 years
	Estimated Year of Work	2026,2051
	Expenditure Type	Replacement
	Expenditure Estimate	\$8,963



Figure 70 - Wood fence on west side.

4.5.10.06 - SITE IMPROVEMENTS - INTERLOCKING BRICK

Interlocking Brick		
Physical Description	Interlocking brick has been used on the patio area at the rear of the building and round steppingstones have been used in the front landscaped area.	
Potential Deterioration	Interlocking brick and steppingstones can settle or shift, creating gaps and uneven surfaces, due to improper substrate preparation or pooling water. Cracking and scaling can occur because of the use of salt or other corrosive materials or from impact.	
Condition Analysis	The interlocking brick and steppingstones appeared to be in satisfactory condition.	
Type of Reserve Allocation	Complete replacement of these components is not typically required; however, a contingency for repair or partial replacement has been included every 10 years.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Unknown
	Normal Life Span (repair cycle)	10 years
	Effective Age	3 years
	Remaining Life Span	7 years
	Estimated Year of Work	2031,2041,2051
	Expenditure Type	Repair Contingency
	Expenditure Estimate	\$1,566



Figure 71 - Interlocking brick patios.



Figure 72 - Steppingstones.

4.5.10.07 - SITE IMPROVEMENTS - LANDSCAPING

Landscaping		
Physical Description	The project has a variety of mature landscaping components including lawns, trees, hedges, shrubs, and perennials.	
Potential Deterioration	Landscaping can be damaged by extreme weather conditions, poor drainage, lack of water, improper maintenance, and pests. In addition, mature trees sometimes require removal as the roots can damage underground utility services, surface asphalt, and concrete. Corporations often make landscaping changes to improve the street appeal of the property.	
Condition Analysis	The landscaped areas appeared to be in satisfactory condition.	
Type of Reserve Allocation	Complete replacement of these components is not typically required; however, a contingency for repair or partial replacement of the landscaping components, as well as some re-grading, is included.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition Normal Life Span (repair cycle) Effective Age Remaining Life Span Estimated Year of Work Expenditure Type Expenditure Estimate	Various 10 years 2 years 8 years 2032,2042,2052 Repair Contingency \$4,414



Figure 73 - Front landscaping.



Figure 74 - Rear landscaping.

4.5.10.08 - SITE IMPROVEMENTS - PAINTING/STAINING - EXTERIOR

Painting/Staining - Exterior		
Physical Description	Wood components include the fence, concrete components include the front landings and metal components include the wrought iron fence and gates.	
Potential Deterioration	In order to extend the life of exterior products such as metal, wood, and concrete, they need to be protected by paint, stain, or sealers. Paint, stain, and sealers are susceptible to UV, which will cause fading, and to moisture and temperature variations, which can lead to peeling & chipping.	
Condition Analysis	The condition of the finish varies based on the component: - The west fence is nearing end-of-life. - The north fence appeared to be in good condition. - The finish on the concrete landing is nearing end-of-life. - The finish on the wrought iron fence has reached end-of-life.	
Type of Reserve Allocation	A provision for painting of these components is provided periodically.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition Normal Life Span (repair cycle) Effective Age Remaining Life Span Estimated Year of Work Expenditure Type Expenditure Estimate	Various 10 years 0 years 10 years 2034,2044,2054 Repair Contingency \$7,336

4.5.10.09 - SITE IMPROVEMENTS - RAILINGS - WROUGHT IRON

Railings - Wrought Iron		
Physical Description	The front entrance stairs are serviced by wrought iron hand and guard rails.	
Potential Deterioration	Exterior metal products are affected by moisture and air that can cause rust and corrosion. Welded joints can lose their integrity. These components can also be damaged by impact. In order to extend the life of exterior metal products, they need to be protected by paint. Paint is susceptible to UV, which will cause fading, and to moisture and temperature variations, which can lead to peeling and chipping.	
Condition Analysis	The handrails and guardrails appeared to be in good condition.	
Type of Reserve Allocation	If protected, these metal components have a long life. A repair contingency has been provided for repair or partial replacement, including painting.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Unknown
	Normal Life Span (repair cycle)	10 years
	Effective Age	5 years
	Remaining Life Span	5 years
	Estimated Year of Work	2029,2039,2049
	Expenditure Type	Repair Contingency
	Expenditure Estimate	\$1,689



Figure 75 - Wrought iron hand and guard rails.

4.5.10.10 - SITE IMPROVEMENTS - WALKWAY - WOOD

Walkway - Wood		
Physical Description	There is a wood walkway that runs along the building on the east and west sides.	
Potential Deterioration	Precipitation and UV will discolor and rot wood components. These components are also subject to twisting, warping, lifting, and sagging.	
Condition Analysis	The wood walkway appeared to be in satisfactory condition.	
Type of Reserve Allocation	An allocation is made for the complete replacement of the wood walkway at the end of the estimated service life.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	Unknown
	Normal Life Span	25 years
	Effective Age	15 years
	Remaining Life Span	10 years
	Estimated Year of Work	2034
	Expenditure Type	Replacement
	Expenditure Estimate	\$3,508



Figure 76 - Wood walkway.

4.5.11.01 - SITE SERVICES - SITE SERVICES

Site Services		
Physical Description	Typical services include electrical supply, low voltage wiring supply, domestic water supply, sanitary drainage, storm water drainage and natural gas supply.	
Potential Deterioration	Underground service wiring is durable and would likely only fail due to mechanical disruption. All apparatus to and including the distribution transformer is the responsibility of Enmax. Small wires, such as used for telephony service, can break with repeated thermal cycling and manipulation during installs or service calls. Cable wiring is generally very robust. All apparatus to and including the distribution panel is the responsibility of the service provider unless changes are being made to the building. Domestic water supply lines are generally robust. However, pipes can burst due to pipe wall failure (quality control or bends), pipe shear from soil movement, and freezing during prolonged cold periods. As sanitary and storm sewers age, cracks can appear, joints can separate, and tree roots can penetrate. Also, shifting ground can shear pipes. Generally, the natural gas service provider will determine the requirement for repair or replacement and undertake the work at their cost, however, the Corporation will typically be responsible for repair of site improvements.	
Condition Analysis	No issues were noted or reported with the services.	
Type of Reserve Allocation	Predicting the timing and scope of a failure is difficult; therefore, a nominal allocation has been provided to accommodate technical investigation and inspections as well as a limited scope of excavation & repair.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition Normal Life Span (repair cycle) Effective Age Remaining Life Span Estimated Year of Work Expenditure Type Expenditure Estimate	Various 50 years 25 years 25 years 2049 Repair Contingency \$20,000

4.5.12.01 - PROFESSIONAL SERVICES - RESERVE FUND STUDY

Reserve Fund Study		
Physical Description	In accordance with the Condominium Property Act a reserve fund study is required every 5 years.	
Potential Deterioration	N/A	
Condition Analysis	This study was completed in 2023.	
Type of Reserve Allocation	Provides for completion of a new reserve fund study every 5 years.	
Life Cycle Analysis/Cost Estimate	Year of Acquisition	2024
	Normal Life Span	5 years
	Effective Age	0 years
	Remaining Life Span	5 years
	Estimated Year of Work	2029,2034,2039,2044,2049,2054
	Expenditure Type	Replacement
	Expenditure Estimate	\$3,780

REIC identifies two **major** funding methodologies used to generate the cash flows required for the reserve fund. The first funding methodology is the “Full Funding (User Pay)” method. This methodology offers infinite options to reach a fully funded state. The second methodology is the “Critical Year (Minimum Balance)” method. This methodology does not attempt to achieve a fully funded state. These methodologies offer several options to develop an adequate funding plan. However, REIC only recommends the full funding option.

5.1 FULL FUNDING (USER PAY)

There are many possible Full Funding (User Pay) models. ***The fairest, least risky in terms of a critical reserve fund shortfall, and the least expensive in the long term is the Benchmark Funding Model.***

5.1.1 THE BENCHMARK FUNDING MODEL (BENCHMARK MODEL)

The benchmark is a calculation of the **optimal** reserve fund balance for each year of the study period. It represents the fully collected depreciation⁸ and ensures the availability of funds to meet the future expected expenditures with minimal risk of special assessment. ***The benchmark funding requirements are prepared without regard to the current financial position of the corporation or the current reserve fund contributions by unit owners.*** On a graph, the benchmark funding requirements looks something like the figure below.

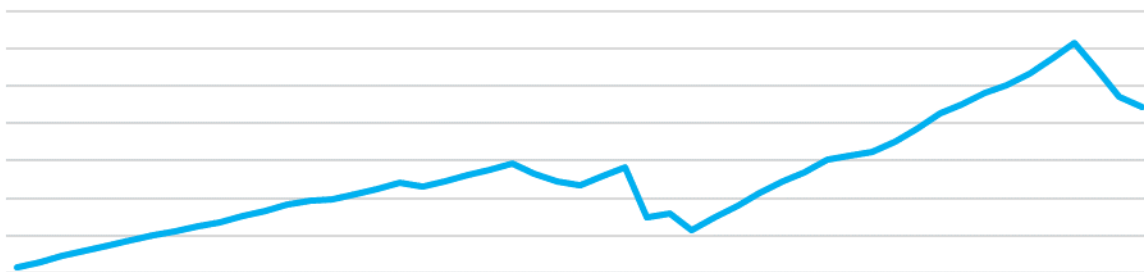


Figure 77 - Example of a Benchmark Funding Curve

To fully fund the reserve account, deposits should be made such that the account balance matches the benchmark values.

If the reserve was funded to follow the benchmark, there would be only small annual funding adjustments throughout the study period.

Sometimes, the adjustments are not so small on a percentage basis because some reserve components re-set during the study. In other words, the component has depreciated to zero, is replaced, and saving for it starts again but with a new, usually higher, future replacement cost.

Generally, the reserve fund balance is compared to the benchmark values, and it is either higher or lower (rarely does it match exactly). When the reserve fund account is less than the benchmark, then the fund is considered to have a deficit, or **shortfall**. When the account is greater than the benchmark, then the account is in surplus. Typically, when attempting to fully fund the reserve account, it will fluctuate above and below the benchmark. When the reserve fund balance deviates too far above the benchmark, the fund is overfunded, and owners are paying more than their share for current depreciation. When the fund balance deviates too far below the benchmark, the fund is underfunded, and owners are not paying their share of current depreciation. The goal is to be as close as possible to the benchmark values in any given year.

The benchmark analysis has been developed by REIC as a guide for the board of directors and their property managers, to ensure that the reserve fund is neither under-funded nor over-funded.

5.1.2 MODERATE FUNDING MODEL (MODERATE MODEL)

While the benchmark funding model is the best model to de-risk the potential for special assessments, it is not the only way to get to a fully funded reserve fund. A planner will often use a more moderate funding approach, or a moderate funding model, to ease the initial burden of catching up. [REIC](#) recommends the study period as the time frame to achieve fully funded status. Other time frames are possible also, and each has its pros & cons. Generally, this approach yields a soft start to the funding schedule.

The caveat to this approach is that there is little buffer in the early years of the fund, contribution increases are steep, and there is an increased risk, although slight, of one or more special assessments along the way. This funding model relies on owners further down the timeline to make up for the reserve fund shortfall accumulated early on. In other words, there is unfunded depreciation in the early years and owners who leave (sell) during this period are not paying their share of the “consumed” components.

A risk analysis is prudent when using this model.

- **Small Buffer:** A small buffer in the early years for a new property presents a minimal risk as major component replacement is far into the future, and technology may improve during this study period such that future costs for large components are lower than predicted. For older properties, a lower buffer implies a greater special assessment risk, as older components can fail sooner than predicted.
- **Real Rate of Return:** The real rate of return (investment return minus inflation rate) may improve, or it may degrade over time. The higher this rate, the more help the fund gets from the investment pool. When the real return is negative, the fund loses ground to inflation every year.
- **Steep Increases:** While the increases start off gradually in nominal assessment terms, if not in percentage terms, they become steep over time. The annual assessments at the backend of the plan may be difficult depending on economic conditions.

5.2 CRITICAL YEAR (MINIMUM BALANCE)

The critical year (minimum balance) method attempts to capitalize the reserve fund at a level less than fully funded while still having sufficient funds to meet the expenditures in critical years (years with large expenditures or low balances). This method sets a minimum balance for the reserve account to provide a small buffer against early or unforeseen component replacement or repair. This amount is generally set to match up with critical items such as boilers or roofs that really cannot be delayed until a more convenient time.

A project’s expenditure profile is often lumpy or spikey. On a graph, it looks something like the figure below. Critical years might be identified as three or four of the largest expenditures which leave the account balance critically low.

The biggest issue with this approach is there is unfunded depreciation throughout the life of the project, and the owners in possession of units at the time of a major replacement may be required to make up that underfunding (special assessment). This could occur if the timing of a large expenditure occurs sooner than the study’s estimate or if the cost of the expenditure is higher than expected.

It is prudent to do a risk analysis when using this model; see the points outlined above in the moderate model.

The following figure is an example of a sample corporation's expenditure profile.



Figure 78 - Typical Expenditure Profile

6 RESERVE FUND ANALYSIS RESULTS

We present three funding options which model the reserve requirements and assessment stream based on the benchmark, the moderate, and the critical year (minimum balance) models. We present these models as adequate to fund the reserve. ***The board can choose from among these models or define some other funding scheme to fund the reserve.***

6.1 BENCHMARK FUNDING MODEL

The benchmark funding model is the first of the two full funding options presented. The following graph depicts the benchmark analysis for the property. As explained earlier, the benchmark is the level of funding required to fully fund the property's future reserve expenditures from the beginning of the study period. The light blue line depicts the benchmark values. The purple line is the property's reserve account balance and follows the blue line almost exactly (in this model). The green line represents the inflation adjusted minimum balance, and the red line shows the property's anticipated expenditures.

The minimum balance for this property is set at \$175,000. It is adjusted for inflation each year, subsequently, it rises geometrically. This is done because the minimum balance would otherwise quickly become meaningless as the cost of components rises with inflation.

6.1.1 GRAPH OF THE BENCHMARK REQUIREMENTS & THE RESERVE ACCOUNT BALANCE

The benchmark funding and expenditure profiles for the 30-year study period are shown in the following figure. The graph presents the ideal funding profile for the assumptions made in this analysis. Note that the reserve account balance matches the benchmark requirements exactly for the case where the corporation funds its reserve to the benchmark level from the beginning of the project. To some observers, the account balance may appear to be too high relative to the expenditure curve. This appearance is the result of the pooled nature of the reserve fund account. The funds for all the components are collected and deposited into the same account. Since each component may have a different life expectancy, the funds for longer life items are not required as soon as the funds for shorter life items. Those funds accumulate in the account until needed. If each component, like the roof or the windows, etc., had its own reserve account and each reserve account was plotted in the same manner, the reserve account balance would go to zero at the expenditure spike. The pooled nature of the funds does provide a buffer of sorts against unexpected premature failure of components. However, premature failure of larger components may ultimately result in special assessments if some other adjustment to expenditures is not made or fees are not increased to compensate.

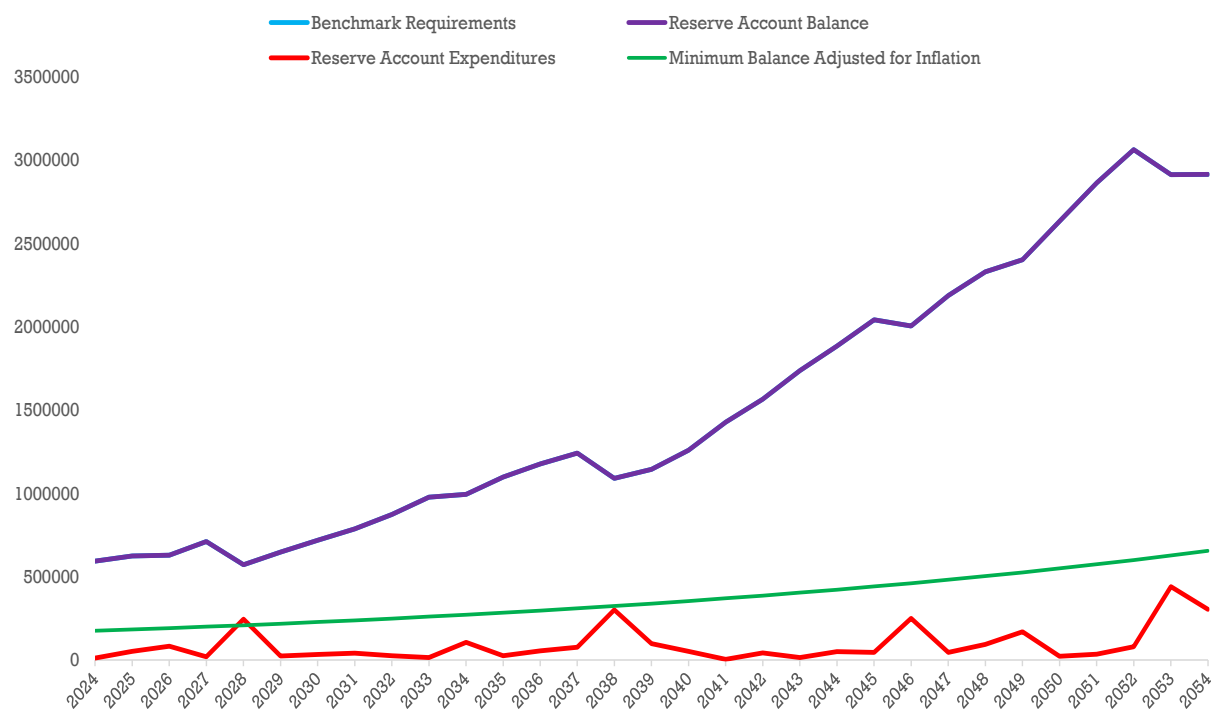


Figure 79 - Benchmark Funding Model - Balance & Expenditures

6.1.3 BENCHMARK CONTRIBUTION SCHEDULE

The benchmark contribution schedule below shows the **annual contributions** required to meet the benchmark funding level. Additionally, it may show that a **special assessment** is required in the current year to catch up to the reserve fund requirement in the current year. The benchmark demonstrates that fully funding from the start can be burdensome. However, the benchmark annual contributions are often lower than the other options from about the middle of the study period onward. It also shows that once fully funded, relatively minor annual increases are required to maintain full funding if the annual contribution schedule is followed. Where larger increases are shown, it represents a re-set of some reserve components; they've reached their end of life and have been replaced or repaired. A new annual savings amount for that component has been calculated, accounting for inflation, and added to the annual reserve requirement.

Table 6 - Benchmark Funding Model Contribution Schedule

	Financial Year End - 31-Dec	Opening Balance	Recommended Annual Contribution	Lump Sum Adjustments	Special Assessment	Estimated Inflation Adjusted Expenditures	Estimated Investment Income	Percentage Increase in Recommended Annual Contributions	Closing Balance
0	2024	350,390	58,370	8000	173710	(11,600)	14716		593,586
1	2025	593,586	58,370			(52,189)	24931	0.00%	624,698
2	2026	624,698	60,768			(82,453)	26237	4.11%	629,250
3	2027	629,250	74,911			(18,845)	26429	23.27%	711,745
4	2028	711,745	75,771			(245,283)	29893	1.15%	572,127
5	2029	572,127	76,421			(24,319)	24029	0.86%	648,258
6	2030	648,258	77,535			(33,904)	27227	1.46%	719,116
7	2031	719,116	77,966			(40,488)	30203	0.56%	786,796
8	2032	786,796	79,828			(25,677)	33045	2.39%	873,993
9	2033	873,993	81,015			(14,519)	36708	1.49%	977,197
10	2034	977,197	81,690			(105,950)	41042	0.83%	993,979
11	2035	993,979	86,590			(24,787)	41747	6.00%	1,097,529
12	2036	1,097,529	87,720			(55,172)	46096	1.30%	1,176,173
13	2037	1,176,173	92,998			(76,394)	49399	6.02%	1,242,177
14	2038	1,242,177	96,522			(300,978)	52171	3.79%	1,089,893
15	2039	1,089,893	107,624			(98,273)	45776	11.50%	1,145,019
16	2040	1,145,019	117,391			(51,807)	48091	9.08%	1,258,694
17	2041	1,258,694	119,768			(3,310)	52865	2.02%	1,428,017
18	2042	1,428,017	119,919			(42,915)	59977	0.13%	1,564,997
19	2043	1,564,997	121,918			(15,109)	65730	1.67%	1,737,536
20	2044	1,737,536	122,613			(49,743)	72976	0.57%	1,883,382
21	2045	1,883,382	124,891			(45,701)	79102	1.86%	2,041,675
22	2046	2,041,675	126,980			(249,478)	85750	1.67%	2,004,927
23	2047	2,004,927	142,764			(45,448)	84207	12.43%	2,186,450
24	2048	2,186,450	144,837			(93,885)	91831	1.45%	2,329,233
25	2049	2,329,233	144,837			(169,286)	97828	0.00%	2,402,613
26	2050	2,402,613	152,816			(22,820)	100910	5.51%	2,633,518
27	2051	2,633,518	153,854			(34,557)	110608	0.68%	2,863,423
28	2052	2,863,423	158,910			(80,272)	120264	3.29%	3,062,325
29	2053	3,062,325	162,608			(440,633)	128618	2.33%	2,912,918
30	2054	2,912,918	182,933			(304,071)	122343	12.50%	2,914,122

6.2 MODERATE FUNDING MODEL

The second full funding option presented is the moderate funding model. This option softens the funding requirement in the early years but imposes higher (than the benchmark model) assessments in later years. There are a multitude of funding curves available here; it is rather subjective as to which one we present. We try to balance the immediate impact on current owners with fairness over the long term to all owners. We feel the curve presented here does balance those considerations.

6.2.1 GRAPH OF THE MODERATE RESERVE ACCOUNT BALANCE VS THE BENCHMARK

The moderate funding and expenditure profiles for the 30-year study period are shown in the following figure. During this period, the actual reserve account balance is in shortfall for the entire time. The reserve account achieves fully funded status at the end of the study period in year 30. However, the account, generally, stays well above the inflation adjusted minimum balance for most of the period. See the benchmark narrative for an explanation for why the account balance, relative to the expenditures, seems so high at the end of the study. Note the reserve account balance curve is very steep near the end of the study. See the narrative for the contribution schedule below for an explanation and how this is handled past the study period.

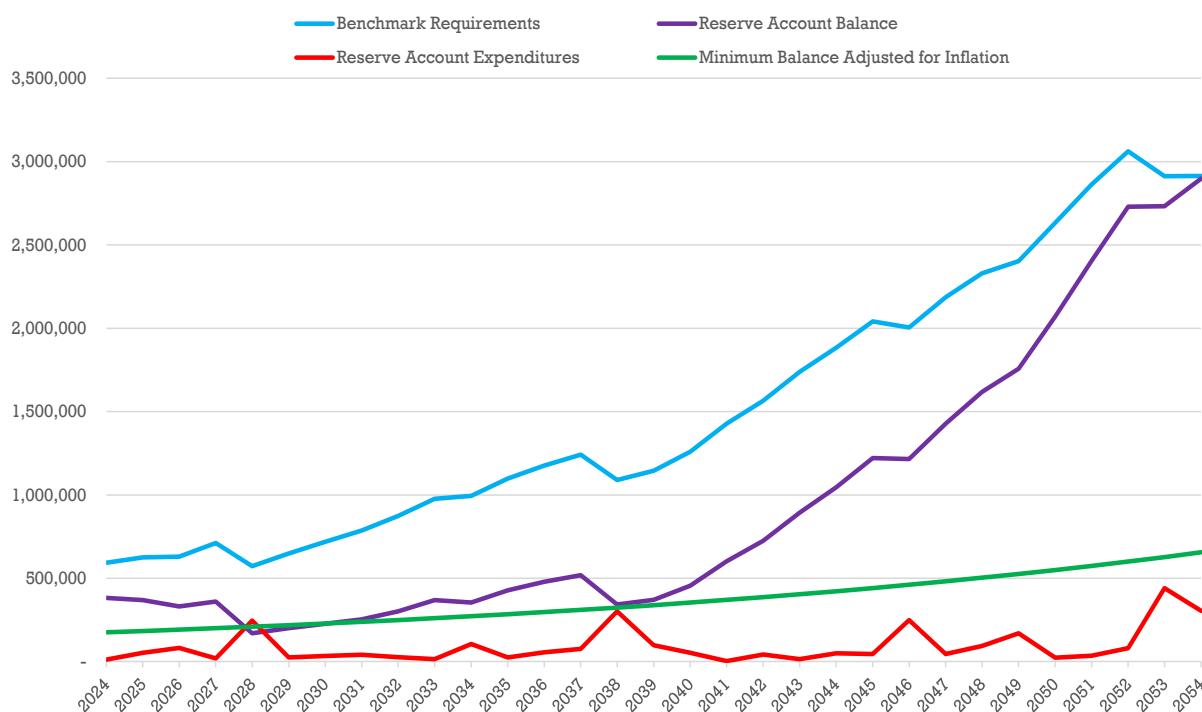


Figure 80 - Moderate Funding Model - Balance & Expenditures

6.2.3 MODERATE FUNDING MODEL CONTRIBUTION SCHEDULE

The moderate funding contribution schedule below gives the contribution schedule and percentage increases for the 30-year study period for the moderate funding model. Generally, with this model, the annual contributions start off lower than the benchmark funding model. However, contributions grow at a rate greater than the inflation rate and often surpass the benchmark contributions somewhere within the 30 years of the study period. These escalations are required to achieve a fully funded reserve fund by the end of the study period. Thereafter, adjustments (often reductions) would be made to the recommended contributions to bring the annual assessments in line with the benchmark values. The colored cells in the “Closing Balance” column represent years in which the closing balance falls below the inflation adjusted minimum balance set by the planner.

Table 7 - Moderate Funding Model Contribution Schedule

	Financial Year End - 31-Dec	Opening Balance	Recommended Annual Contribution (*=Actual)	Lump Sum Adjustments	Special Assessment	Estimated Inflation Adjusted Expenditures	Estimated Investment Income	Percentage Increase in Recommended Annual Contributions	Closing Balance (Coloured cell = balance below minimum recommended balance)
0	2024	350,390	20,000 *	8,000		(11,600)	14,716		381,506
1	2025	381,506	24,000			(52,189)	16,023	20.00%	369,341
2	2026	369,341	28,800			(82,453)	15,512	20.00%	331,200
3	2027	331,200	33,984			(18,845)	13,910	18.00%	360,250
4	2028	360,250	40,101			(245,283)	15,131	18.00%	170,199
5	2029	170,198	47,319			(24,319)	7,148	18.00%	200,347
6	2030	200,347	52,051			(33,904)	8,415	10.00%	226,909
7	2031	226,909	57,256			(40,488)	9,530	10.00%	253,207
8	2032	253,207	62,982			(25,677)	10,635	10.00%	301,147
9	2033	301,147	69,280			(14,519)	12,648	10.00%	368,557
10	2034	368,556	76,208			(105,950)	15,479	10.00%	354,294
11	2035	354,294	82,305			(24,787)	14,880	8.00%	426,693
12	2036	426,693	88,889			(55,172)	17,921	8.00%	478,331
13	2037	478,331	96,000			(76,394)	20,090	8.00%	518,027
14	2038	518,027	103,680			(300,978)	21,757	8.00%	342,487
15	2039	342,487	111,975			(98,273)	14,384	8.00%	370,574
16	2040	370,574	120,933			(51,807)	15,564	8.00%	455,264
17	2041	455,264	130,608			(3,310)	19,121	8.00%	601,682
18	2042	601,682	141,056			(42,915)	25,271	8.00%	725,094
19	2043	725,093	152,341			(15,109)	30,454	8.00%	892,779
20	2044	892,779	164,528			(49,743)	37,497	8.00%	1,045,060
21	2045	1,045,060	177,690			(45,701)	43,893	8.00%	1,220,942
22	2046	1,220,941	191,905			(249,478)	51,280	8.00%	1,214,648
23	2047	1,214,648	207,258			(45,448)	51,015	8.00%	1,427,473
24	2048	1,427,473	223,838			(93,885)	59,954	8.00%	1,617,381
25	2049	1,617,381	241,745			(169,286)	67,930	8.00%	1,757,771
26	2050	1,757,771	261,085			(22,820)	73,826	8.00%	2,069,862
27	2051	2,069,862	281,972			(34,557)	86,934	8.00%	2,404,211
28	2052	2,404,211	304,530			(80,272)	100,977	8.00%	2,729,446
29	2053	2,729,446	328,892			(440,633)	114,637	8.00%	2,732,342
30	2054	2,732,342	355,203			(304,071)	114,758	8.00%	2,898,232

6.3 CRITICAL YEAR (MINIMUM BALANCE) FUNDING MODEL

The third option presented is the critical year (minimum balance) model. It can be challenging to find an assessment schedule which can handle the spikey nature of the expenditure stream and does not require a special assessment. The difference between the blue and purple lines in the following graph represents the uncollected depreciation and the special assessment risk that is carried by the owners. This is not necessarily bad. Most homeowners fund all repairs and replacements by special assessment (out of pocket). However, some condominium owners dislike special assessments and it is important that the board understand an elevated special assessment risk is present if this funding model is chosen. There may also be an impact on unit values if the funding shortfall is substantial. We consider the critical year model presented in this report to be a minimum adequate funding strategy. Funding lower than these levels is likely to lead to a special assessment in the future.

6.3.1 GRAPH OF THE CRITICAL YEAR FUNDING MODEL VS THE BENCHMARK

The critical year funding and expenditure profile for the 30-year study period is shown in the following figure. In this funding scenario, the reserve account does provide funds to meet the predicted expenditures and often is above the inflation adjusted minimum balance. However, there is a substantial reserve account shortfall throughout the study period. Any significant deviation of a major expense from the predicted timeframe is likely to result in a special assessment to cover the shortfall. Naturally, this funding option will require adjustments every 5 years to account for deviations from the predictions and to ensure adequate funding is available to the corporation as expensive items outside the 30-year analysis period move into the analysis period. This option often converges, or is close to converging, to the benchmark level after 60 years in the analysis.

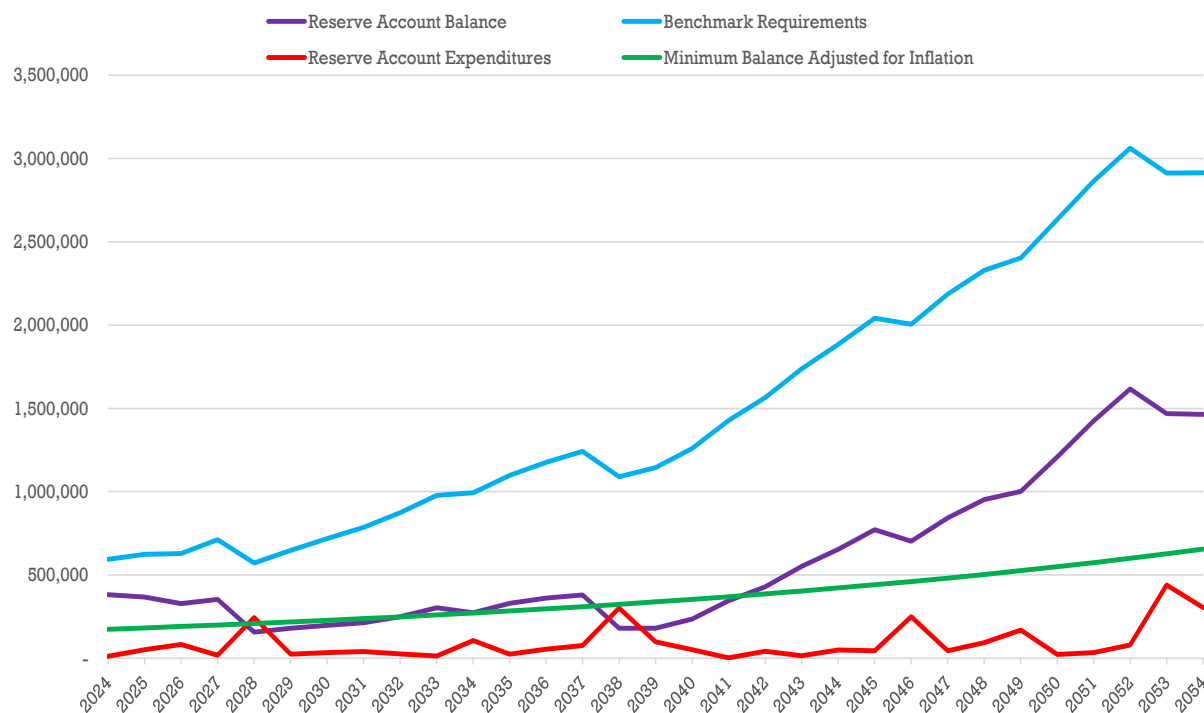


Figure 81 - Critical Year Funding Model - Balance & Expenditures

6.3.3 CRITICAL YEAR FUNDING MODEL CONTRIBUTION SCHEDULE

The critical year funding contribution schedule below gives the contribution schedule and percentage increases for the recommended annual contributions (excluding lump sum and special assessment values) for the 30-year study period for the critical year funding model. Here again, with this model, the annual contributions start off lower than the benchmark funding model. While contributions typically grow at a rate greater than the inflation rate, they tend to be lower than in the moderate model. However, they also often surpass the benchmark contributions somewhere within the 30 years of the study period. The colored cells in the “Closing Balance” column represent years in which the closing balance falls below the inflation adjusted minimum balance set by the planner. This funding option typically will result in a weaker reserve fund position for the entire life of the building and there is a higher likelihood of a special assessment at any point along the way. It is clear from the strength graph where the highest risk of a special assessment occurs.

Table 8 - Critical Year Funding Model Contribution Schedule

	Financial Year End - 31-Dec	Opening Balance	Recommended Annual Contribution (*=Actual)	Lump Sum Adjustments	Special Assessment	Estimated Inflation Adjusted Expenditures	Estimated Investment Income	Percentage Increase in Recommended Annual Contributions	Closing Balance
0	2024	350,390	20,000 *	8,000		(11,600)	14,716		381,506
1	2025	381,506	23,000			(52,189)	16,023	15.00%	368,341
2	2026	368,341	26,450			(82,453)	15,470	15.00%	327,808
3	2027	327,808	30,418			(18,845)	13,768	15.00%	353,149
4	2028	353,149	34,980			(245,283)	14,832	15.00%	157,678
5	2029	157,678	40,227			(24,319)	6,622	15.00%	180,209
6	2030	180,209	44,049			(33,904)	7,569	9.50%	197,922
7	2031	197,922	48,233			(40,488)	8,313	9.50%	213,980
8	2032	213,980	52,816			(25,677)	8,987	9.50%	250,106
9	2033	250,106	57,833			(14,519)	10,504	9.50%	303,924
10	2034	303,924	63,327			(105,950)	12,765	9.50%	274,067
11	2035	274,067	68,393			(24,787)	11,511	8.00%	329,184
12	2036	329,184	73,865			(55,172)	13,826	8.00%	361,702
13	2037	361,702	79,774			(76,394)	15,191	8.00%	380,273
14	2038	380,273	85,358			(300,978)	15,971	7.00%	180,625
15	2039	180,625	91,333			(98,273)	7,586	7.00%	181,272
16	2040	181,272	97,727			(51,807)	7,613	7.00%	234,805
17	2041	234,805	104,567			(3,310)	9,862	7.00%	345,924
18	2042	345,924	111,887			(42,915)	14,529	7.00%	429,425
19	2043	429,425	119,719			(15,109)	18,036	7.00%	552,070
20	2044	552,070	128,100			(49,743)	23,187	7.00%	653,613
21	2045	653,613	137,066			(45,701)	27,452	7.00%	772,431
22	2046	772,431	146,661			(249,478)	32,442	7.00%	702,056
23	2047	702,056	156,927			(45,448)	29,486	7.00%	843,022
24	2048	843,022	167,912			(93,885)	35,407	7.00%	952,456
25	2049	952,456	177,987			(169,286)	40,003	6.00%	1,001,161
26	2050	1,001,161	188,666			(22,820)	42,049	6.00%	1,209,056
27	2051	1,209,056	199,986			(34,557)	50,780	6.00%	1,425,265
28	2052	1,425,265	211,985			(80,272)	59,861	6.00%	1,616,840
29	2053	1,616,840	224,705			(440,633)	67,907	6.00%	1,468,819
30	2054	1,468,819	238,187			(304,071)	61,690	6.00%	1,464,625

6.4 CONCLUSION - FUNDING MODELS

In conclusion, the various funding options have their respective pros & cons.

The benchmark model typically requires a large initial increase in yearly assessments, and it requires that level to be maintained throughout the study period. However, the assessments do not increase much during the period, and special assessment risk is very low. Additionally, this model typically results in the lowest total required collections.

Both moderate & critical year funding models opt for a softer start to the funding scheme but ramp up over the period, resulting in final assessments that are higher, in some cases much higher, than the final values in the benchmark model. Both models carry an elevated risk of special assessments compared to the benchmark model, but the risk is higher in the critical year model.

The following charts help to visually demonstrate the reserve fund strength for each funding model. The red line represents at what percentage a model is funded relative to the benchmark. The colour bars are a somewhat arbitrary indication of fund strength based on a statistical analysis from a US-based company.

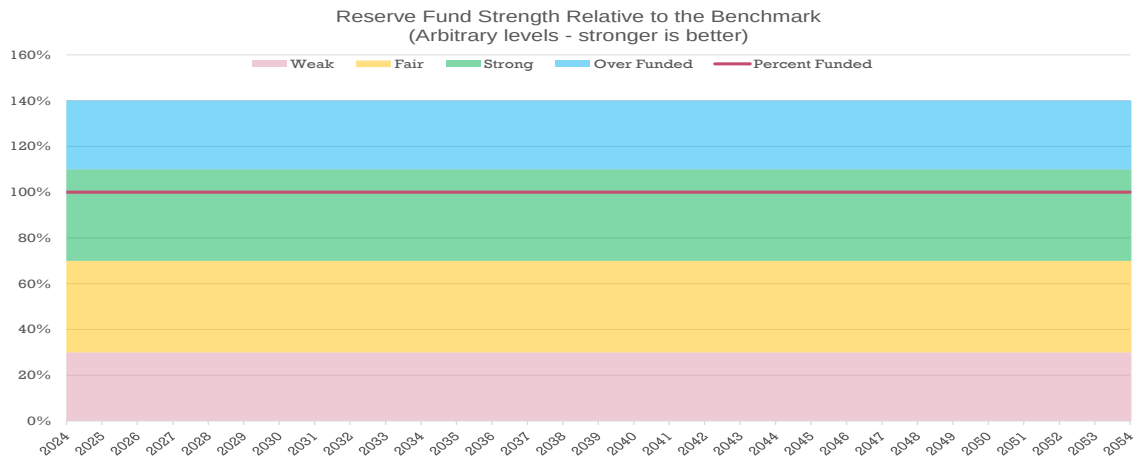


Figure 82 - Benchmark Funding Model Strength Visual

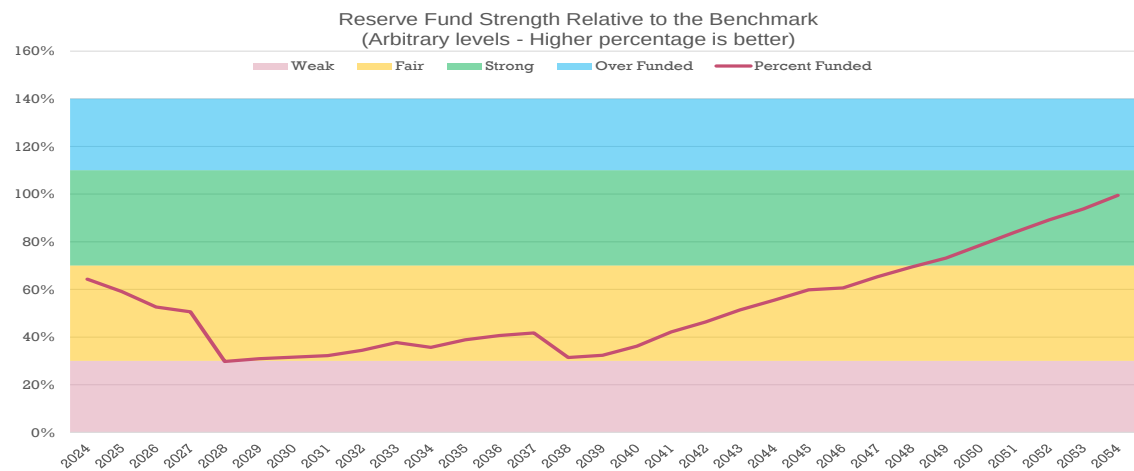


Figure 83 - Moderate Funding Model Strength Visual

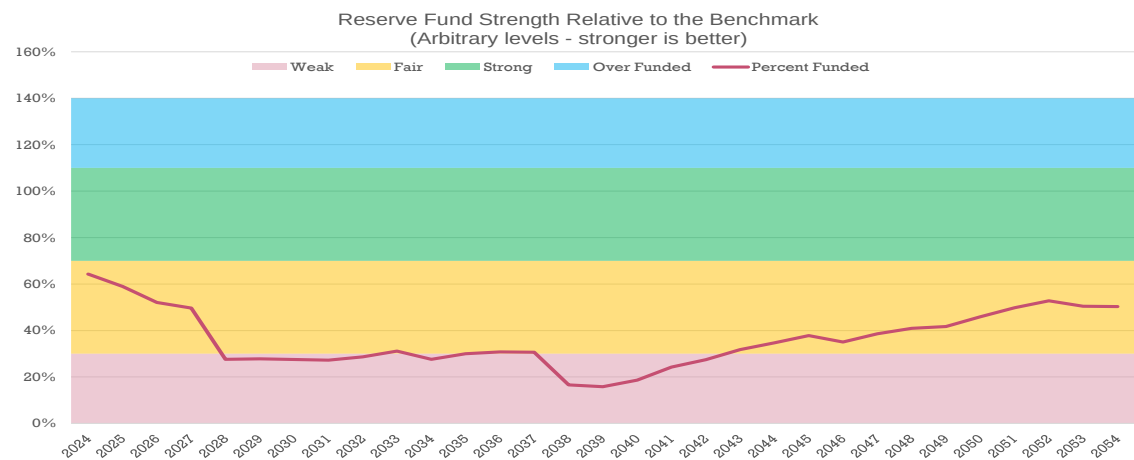


Figure 84 - Critical Year Funding Model Strength Visual

Section 7 below explains the various tables used to generate the contribution schedules of the various options. The Reserve Component Schedule and the study period Cash Flow Projection & Benchmark Analysis (x3) can be found after its respective explanation. The contributions schedules have been introduced above.

7 RESERVE FUND SPREADSHEETS

The analysis model used to generate the graphs and schedules above consists of three spreadsheets:

- The Contribution Schedule
- The Reserve Component Schedule
- The Cash Flow Projection & Benchmark Analysis

Note: Due to rounding, there may be minor discrepancies in the data presented, which are not deemed significant.

7.1 CONTRIBUTION SCHEDULE

The contribution schedules, which have already been introduced in sections [6.1.3](#), [6.2.3](#), & [6.3.3](#), show the minimum annual funding requirements proposed to meet the estimated reserve fund expenditures. It also shows the yearly account balances if the annual contributions are maintained, any special assessments planned, the magnitude of yearly expenditures, estimated investment income, and the year-on-year percentage increase of annual contributions. This schedule is dependent on the funding option, so three tables are included in this report.

7.2 RESERVE COMPONENT SCHEDULE

This schedule shows the various reserve components, the life cycle analysis of the components, and the estimated replacement costs. The cost estimates are made pursuant to prudent reserve fund practices, which provide for inflationary cost increases over time and interest income from reserve fund investments. This schedule is independent of the funding option, so only one version is included in this report.

The following spreadsheet columns are explained:

- **Current Replacement Costs:** The cost for all major repairs and replacements at current prices.
- **Future Replacement Costs:** The cost for all major repairs and replacements in the future at the end of the expected life span (the current replacement costs are compounded by inflation).
- **Current Reserve Fund Requirements:** The amount that should have been contributed by the owners to date for each of the reserve components.
- **Future Reserve Fund Accumulation:** The current reserve fund requirements together with interest compounded over the remaining life span.
- **Future Reserve Fund Requirements:** The amount that is still left to be contributed to achieve the repair/replacement of the reserve component (the future replacement cost – the future reserve fund accumulation).
- **Annual Reserve Fund Assessments:** The annual contribution that needs to be made by the owners.

Table 9 - Reserve Component Schedule

	Reserve Components	Year of Acquisition	Normal Life Span (Years)	Effective Age (Years)	Remaining Life Span (Years)	Est. Year of Work	Expenditure Type	Current Replacement/ Repair Cost (\$)	Future Replacement/ Repair Cost (\$)	Current Reserve Fund Requirements (\$)	Future Reserve Fund Accumulation (\$)	Future Reserve Fund Requirements (\$)	Annual Reserve Fund Assessment (\$)	Reserve Fund Allocation
1.00	Substructure													
1.01	Foundation Elements & Floors	1928	25	19	6	2030	Repair Contingency	18,769	24,442	16,120	20,634	3,808	571	0.98%
1.02	Repair Settled Piles – Rear Veranda	1928	100	96	4	2028	Repair Contingency	72,450	86,398	73,070	86,141	257	60	0.10%
2.00	Superstructure													
2.01	Blown-In/Batt Attic Insulation	Various	30	29	1	2025	Repair Contingency	3,500	3,658	3,450	3,594	63	63	0.11%
2.02	Framing, Above Grade Floors, & Roof Structure	1928	100	70	30	2054	Repair Contingency	24,570	92,022	25,700	88,299	3,723	64	0.11%
3.00	Exterior Walls													
3.01	Brick	1928	20	18	2	2026	Repair Contingency	35,803	39,098	33,591	36,472	2,626	1,286	2.20%
3.02	Doors - Building Entry Refinish	2020	10	4	6	2030	Replacement	4,725	6,153	2,163	2,768	3,385	508	0.87%
3.03	Doors - Building Entry Repair	1928	25	12	13	2037	Repair Contingency	15,288	27,093	9,625	16,431	10,662	633	1.08%
3.04	Doors - Metal	2013	40	11	29	2053	Replacement	3,898	13,969	1,911	6,300	7,669	140	0.24%
3.05	Doors - Wood - Exterior	Various	10	8	2	2026	Repair Contingency	3,809	4,160	3,185	3,459	701	343	0.59%
3.06	Wood Components - Painting	1928	10	8	2	2026	Replacement	20,849	22,768	17,436	18,931	3,837	1,879	3.22%
3.07	Sealants	Various	5	4	1	2025	Repair Contingency	2,541	2,655	2,080	2,167	488	488	0.84%
3.08	Windows - Main Building	2023	15	1	14	2038	Phased Replacement	109,276	202,373	9,957	17,713	184,660	9,957	17.06%
3.09	Windows - Veranda	1928	10	6	4	2028	Repair Contingency	32,644	38,929	21,415	25,246	13,682	3,212	5.50%
3.10	Veranda Rehab - SWDT	1928	40	36	4	2028	Replacement	44,295	52,822	42,892	50,564	2,258	530	0.91%
4.00	Roof Assembly													
4.01	Soffits	Unknown	20	12	8	2032	Repair Contingency	13,641	19,400	9,698	13,478	5,921	638	1.09%
4.02	Gutters & Downspouts	Various	20	5	15	2039	Repair Contingency	8,401	16,258	2,908	5,390	10,868	535	0.92%
4.03	Metal Roof - Galvanized	2021	75	4	71	2095	Replacement	415,800	9,465,447	81,086	1,505,067	7,960,380	19,038	32.62%
5.00	Electrical Systems													
5.01	Exterior Lighting & Other Electrical Components	Various	20	10	10	2034	Replacement	8,499	13,199	5,261	7,938	5,261	434	0.74%
5.02	Intercom	Unknown	20	18	2	2026	Replacement	5,147	5,621	4,829	5,243	378	185	0.32%
5.03	Interior Lighting & Other Electrical Components	Various	25	11	14	2038	Phased Replacement	3,502	6,485	2,065	3,674	2,811	152	0.26%
5.04	Power Distribution	Unknown	20	10	10	2034	Repair Contingency	6,056	9,405	3,749	5,657	3,749	309	0.53%
6.00	Mechanical Systems													
6.01	Backflow Devices	Various	25	13	12	2036	Replacement	1,592	2,700	1,063	1,741	959	63	0.11%
6.02	Boiler	2009	30	15	15	2039	Replacement	30,062	58,178	20,388	37,790	20,388	1,003	1.72%
6.03	Domestic Hot Water Boiler	2013	25	11	14	2038	Replacement	17,098	31,665	10,085	17,940	13,725	740	1.27%
6.04	Domestic Hot Water Circulation System	Various	10	7	3	2027	Repair Contingency	16,513	18,845	12,357	13,981	4,864	1,555	2.66%
6.05	Domestic Hot Water Heater	2013	12	11	1	2025	Replacement	9,957	10,405	9,329	9,721	685	685	1.17%
6.06	Heaters - Cast Iron Radiators	Various	10	8	2	2026	Repair Contingency	933	1,019	781	848	172	84	0.14%
6.07	Heating - Other Components	Various	20	11	9	2033	Replacement	9,770	14,519	6,507	9,424	5,095	478	0.82%
6.08	Plumbing System - Misc. Components	Various	15	5	10	2034	Repair Contingency	8,099	12,577	3,365	5,078	7,499	619	1.06%
6.09	Sump Pumps	Unknown	10	5	5	2029	Replacement	1,972	2,458	1,103	1,355	1,103	203	0.35%
6.10	Water Softener System	Unknown	15	10	5	2029	Replacement	1,244	1,551	925	1,136	415	76	0.13%
7.00	Life Safety Systems													
7.01	Fire Alarm - 10 Year Components	Various	10	5	5	2029	Replacement	4,875	6,075	2,726	3,349	2,726	501	0.86%
7.02	Fire Alarm - 20 Year Components	Unknown	20	10	10	2034	Replacement	9,006	13,986	5,574	8,411	5,574	460	0.79%
9.00	Interior Improvements													
9.01	Baseboard & Ceiling Moulding	Unknown	15	11	4	2028	Repair Contingency	5,642	6,728	4,511	5,318	1,410	331	0.57%
9.02	Carpet	Unknown	15	14	1	2025	Replacement	6,460	6,751	6,160	6,418	332	332	0.57%
9.03	Doors	1928	15	8	7	2031	Repair Contingency	12,974	17,656	8,062	10,753	6,903	869	1.49%
9.04	Floor Tile - grout replacement/tile repair	1928	15	8	7	2031	Replacement	8,023	10,918	4,985	6,649	4,269	537	0.92%
9.05	Hardwood Floor - Refinishing	Unknown	15	14	1	2025	Repair Contingency	11,891	12,426	11,338	11,815	611	611	1.05%
9.06	Stairwell Rails, Posts, Balusters - Wood - Refinishing	Unknown	15	8	7	2031	Repair Contingency	7,188	9,782	4,467	5,957	3,825	481	0.82%
9.07	Laundry Equipment	2013/2023	8	4	4	2028	Phased Replacement	5,349	6,379	2,928	3,451	2,928	687	1.18%
9.08	Mailbox	Unknown	30	10	20	2044	Replacement	2,916	7,032	1,469	3,346	3,686	121	0.21%
9.09	Miscellaneous	2013	15	11	4	2028	Repair Contingency	905	1,079	724	853	226	53	0.09%
9.10	Painting - 10 Year Cycle	Unknown	10	9	1	2025	Replacement	7,439	7,773	6,844	7,132	641	641	1.10%
9.11	Painting - 20 Year Cycle	Unknown	20	19	1	2025	Replacement	2,860	2,989	2,774	2,890	98	98	0.17%
9.12	Plaster	1928	10	9	1	2025	Repair Contingency	5,294	5,532	4,871	5,076	457	457	0.78%
9.13	Wallpaper	Unknown	20	10	10	2034	Replacement	21,940	34,072	13,580	20,492	13,580	1,121	1.92%
10.00	Site Improvements													
10.01	Concrete	Various	20	15	5	2029	Repair Contingency	5,954	7,420	4,960	6,093	1,327	244	0.42%
10.02	Driveway - Gravel	2017	20	7	13	2037	Repair Contingency	1,348	2,390	625	1,066	1,323	79	0.13%
10.03	Fencing - Brick, Concrete, & Iron	1928	100	96	4	2028	Repair Contingency	44,400	52,948	44,780	52,791	157	37	0.06%
10.04	Fencing - Wood (New Section)	2017	25	7	18	2042	Replacement	15,018	33,167	6,160	12,918	20,249	775	1.33%
10.05	Fencing - Wood (Old Section)	Unknown	25	23	2	2026	Replacement	8,963	9,788	8,584	9,320	467	229	0.39%
10.06	Interlocking Brick	Unknown	10	3	7	2031	Repair Contingency	1,566	2,132	550	734	1,398	176	0.30%
10.07	Landscaping	Various	10	2	8	2032	Repair Contingency	4,414	6,277	1,058	1,470	4,807	518	0.89%
10.08	Painting/Staining - Exterior	Various	10	0	10	2034	Repair Contingency	7,336	11,393	0	0	11,393	940	1.61%
10.09	Railings - Wrought Iron	Unknown	10	5	5	2029	Repair Contingency	1,689	2,105	945	1,161	945	174	0.30%
10.10	Walkway - Wood	Unknown	25	15	10	2034	Replacement	3,508	5,448	2,588	3,905	1,543	127	0.22%
11.00	Site Services													
11.01	Site Services	Various	50	25	25	2049	Repair Contingency	20,000	60,109	15,831	44,278	15,831	370	0.63%
12.00	Professional Services													
12.01	Reserve Fund Study	2024	5	0	5	2029	Replacement	3,780	4,711	0	0	4,711	866	1.48%
	TOTAL RESERVES							\$ 1,181,443	\$ 10,653,335	\$ 605,186	\$ 2,259,826	\$ 8,393,509	\$ 58,370	100.00%

7.3 CASH FLOW PROJECTION AND BENCHMARK ANALYSIS

This schedule is a picture of the corporation's reserve fund - including the cash position, annual contributions, component expenditures projected for each year, and a comparison of the account balance to the benchmark. It is specific to each funding model, so there are three of them in this report.

The benchmark analysis portion of this spreadsheet is the foundation of the [REIC](#) Reserve Fund Planning System, as it provides the basis for comparison to the actual reserve fund operation.

Some important spreadsheet columns are explained:

- **Opening Balance:** This is the reserve fund position at the beginning of each fiscal year.
- **Total Cash Resources:** These are the annual reserve fund contributions, special assessments, and investment income.
- **Reserve Fund Expenditures:** These are the annual projected expenditures.
- **Closing Balance:** This is the reserve fund position at the end of each year, which is carried forward to the next year.
- **Benchmark Analysis:** The reserve requirements have been projected by formula considering the inflation factor, investment rates and reserve fund expenditures.

Table 10 - Cash Flow Projection & Benchmark Analysis - Benchmark Funding Model

Financial Year End - 31-Dec		Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	
		2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
OPENING BALANCE		350,390	593,586	624,698	629,250	711,745	572,127	648,258	719,116	786,796	873,993	977,197	993,979	1,097,529	1,176,173	1,242,177	1,089,893	1,145,019	1,258,694	1,428,017	1,564,997	1,737,536	1,883,382	2,041,675	2,004,927	2,186,450	2,329,233	2,402,613	2,633,518	2,863,423	3,062,325	2,912,918	
Lump Sum Contributions		8000																															
Reserve Fund Contributions		58,370	58,370	60,768	74,911	75,771	76,421	77,535	77,966	79,828	81,015	81,690	86,590	87,720	92,998	96,522	107,624	117,391	119,768	119,919	121,918	122,613	124,891	126,980	142,764	144,837	144,837	152,816	153,854	158,910	162,608	182,933	
Reserve Fund Special Assessment		173710																															
Reserve Fund Investment Income (approximation)		14,716	24,931	26,237	26,429	29,893	24,029	27,227	30,203	33,045	36,708	41,042	41,747	46,096	49,399	52,171	45,776	48,091	52,865	59,977	65,730	72,976	79,102	85,750	84,207	91,831	97,828	100,910	110,608	120,264	128,618	122,343	
Investment Rate		4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	
TOTAL CASH RESOURCES		605,186	676,887	711,703	730,590	817,410	672,577	753,020	827,284	899,670	991,716	1,099,929	1,122,316	1,231,345	1,318,571	1,390,871	1,243,292	1,310,501	1,431,327	1,607,912	1,752,645	1,933,126	2,087,376	2,254,405	2,231,897	2,423,118	2,571,898	2,656,338	2,897,980	3,142,597	3,353,551	3,218,193	
RESERVE FUND EXPENDITURES		Current RFR																															
1.00 Substructure																																	
1.01 Foundation Elements & Floors		16,120						24,442																									
1.02 Repair Settled Piles – Rear Veranda		73,070				86,398																											
2.00 Superstructure																																	
2.01 Blown-In/Batt Attic Insulation		3,450	3,658																														
2.02 Framing, Above Grade Floors, & Roof Structure		25,700																														92,022	
3.00 Exterior Walls																																	
3.01 Brick		33,591		39,098																			94,292										
3.02 Doors - Building Entry Refinish		2,163						6,153										9,556												14,840			
3.03 Doors - Building Entry Repair		9,625													27,093																		
3.04 Doors - Metal		1,911																													13,969		
3.05 Doors - Wood - Exterior		3,185		4,160										6,460									10,032										
3.06 Wood Components - Painting		17,436		22,768									35,358										54,909										
3.07 Sealants		2,080	2,655					3,309					4,124				5,139				6,404								7,980				
3.08 Windows - Main Building		9,957	8,000																												391,649		
3.09 Windows - Veranda		21,415				38,929										202,373																	
3.10 Veranda Rehab - SWDT		42,892				52,822										60,455										93,885							
4.00 Roof Assembly																																	
4.01 Soffits		9,698									19,400																				46,786		
4.02 Gutters & Downspouts		2,908															16,258																
4.03 Metal Roof - Galvanized		81,086																															
5.00 Electrical Systems																																	
5.01 Exterior Lighting & Other Electrical Components		5,261											13,199																			31,831	
5.02 Intercom		4,829		5,621																			13,556										
5.03 Interior Lighting & Other Electrical Components		2,065															6,485																
5.04 Power Distribution		3,749										9,405																				22,683	
6.00 Mechanical Systems																																	
6.01 Backflow Devices		1,063													2,700																		
6.02 Boiler		20,388																58,178															
6.03 Domestic Hot Water Boiler		10,085															31,665																
6.04 Domestic Hot Water Circulation System		12,357			18,845																												
6.05 Domestic Hot Water Heater		9,329	10,405																					45,448					29,926				
6.06 Heaters - Cast Iron Radiators		781		1,019											1,583																		
6.07 Heating - Other Components		6,507									14,519													2,458							35,016		
6.08 Plumbing System - Misc. Components		3,365											12,577																24,340				
6.09 Sump Pumps		1,103					2,458																						5,927				
6.10 Water Softener System		925					1,551																	3,001									
7.00 Life Safety Systems																																	
7.01 Fire Alarm - 10 Year Components		2,726					6,075										9,435												14,652				
7.02 Fire Alarm - 20 Year Components		5,574										13,986																				33,729	
9.00 Interior Improvements																																	
9.01 Baseboard & Ceiling Moulding		4,511				6,728																	13,021										
9.02 Carpet		6,160	6,751															13,064															
9.03 Doors		8,062									17,656																						
9.04 Floor Tile - grout replacement/tile repair		4,985									10,918																						
9.05 Hardwood Floor - Refinishing		11,338	12,426																														
9.06 Stainwell Rails, Posts, Balusters - Wood - Refinishing		4,467									9,782																						
9.07 Laundry Equipment		2,928				6,379								9,072																18,347			
9.08 Mailbox		1,469																															
9.09 Miscellaneous		724				1,079																											
9.10 Painting - 10 Year Cycle		6,844	7,773											12,072																			
9.11 Painting - 20 Year Cycle		2,774	2,989																														
9.12 Plaster		4,871	5,532												8,592																		
9.13 Wallpaper		13,580										34,072																				82,171	
10.00 Site Improvements																																	
10.01 Concrete		4,960					7,420																										

Table 11 - Cash Flow Projection & Benchmark Analysis - Moderate Funding Model

Financial Year End - 31-Dec		Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year			
		2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
OPENING BALANCE		350,390	381,506	369,341	331,200	360,250	170,198	200,347	226,909	253,207	301,147	368,556	354,294	426,693	478,331	518,027	342,487	370,574	455,264	601,682	725,093	892,779	1,045,060	1,220,941	1,214,648	1,427,473	1,617,381	1,757,771	2,069,862	2,404,211	2,729,446	2,732,342	
Lump Sum Contributions		8,000																															
Reserve Fund Contributions		20,000	24,000	28,800	33,984	40,101	47,319	52,051	57,256	62,982	69,280	76,208	82,305	88,889	96,000	103,680	111,975	120,933	130,608	141,056	152,341	164,528	177,690	191,905	207,258	223,838	241,745	261,085	281,972	304,530	328,892	355,203	
Reserve Fund Special Assessment																																	
Reserve Fund Interest Income		14,716	16,023	15,512	13,910	15,131	7,148	8,415	9,530	10,635	12,648	15,479	14,880	17,921	20,090	21,757	14,384	15,564	19,121	25,271	30,454	37,497	43,893	51,280	51,015	59,954	67,930	73,826	86,934	100,977	114,637	114,758	
	Investment Rate	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	
TOTAL CASH RESOURCES		393,106	421,530	413,653	379,095	415,482	224,666	260,813	293,695	326,824	383,076	460,244	451,480	533,503	594,421	643,465	468,846	507,071	604,992	768,009	907,888	1,094,803	1,266,643	1,464,126	1,472,921	1,711,266	1,927,056	2,092,682	2,438,768	2,809,718	3,172,975	3,202,303	
RESERVE FUND EXPENDITURES	Current RFR																																
1.00 Substructure																																	
1.01 Foundation Elements & Floors	16,120							24,442																									
1.02 Repair Settled Piles – Rear Veranda	73,070					86,398																											
2.00 Superstructure																																	
2.01 Blown-In/Batt Attic Insulation	3,450		3,658																														
2.02 Framing, Above Grade Floors, & Roof Structure	25,700																															92,022	
3.00 Exterior Walls																																	
3.01 Brick	33,591			39,098																				94,292									
3.02 Doors - Building Entry Refinish	2,163						6,153											9,556										14,840					
3.03 Doors - Building Entry Repair	9,625														27,093																		
3.04 Doors - Metal	1,911																														13,969		
3.05 Doors - Wood - Exterior	3,185			4,160										6,460										10,032									
3.06 Wood Components - Painting	17,436			22,768										35,358									54,909										
3.07 Sealants	2,080		2,655					3,309					4,124				5,139					6,404						7,980					
3.08 Windows - Main Building	9,957	8,000														202,373														391,649			
3.09 Windows - Veranda	21,415					38,929									60,455											93,885							
3.10 Veranda Rehab - SWDT	42,892					52,822																											
4.00 Roof Assembly																															46,786		
4.01 Soffits	9,698									19,400							16,258																
4.02 Gutters & Downspouts	2,908																																
4.03 Metal Roof - Galvanized	81,086																																
5.00 Electrical Systems																																	
5.01 Exterior Lighting & Other Electrical Components	5,261											13,199																				31,831	
5.02 Intercom	4,829			5,621																			13,556										
5.03 Interior Lighting & Other Electrical Components	2,065															6,485																	
5.04 Power Distribution	3,749											9,405																				22,683	
6.00 Mechanical Systems																																	
6.01 Backflow Devices	1,063													2,700																			
6.02 Boiler	20,388																58,178																
6.03 Domestic Hot Water Boiler	10,085															31,665																	
6.04 Domestic Hot Water Circulation System	12,357				18,845												29,265								45,448								
6.05 Domestic Hot Water Heater	9,329		10,405														17,646										29,926						
6.06 Heaters - Cast Iron Radiators	781			1,019																		2,458											
6.07 Heating - Other Components	6,507										14,519			1,583																35,016			
6.08 Plumbing System - Misc. Components	3,365											12,577																					
6.09 Sump Pumps	1,103						2,458										3,817											24,340					
6.10 Water Softener System	925						1,551															3,001						5,927					
7.00 Life Safety Systems																																	
7.01 Fire Alarm - 10 Year Components	2,726							6,075									9,435											14,652					
7.02 Fire Alarm - 20 Year Components	5,574											13,986																				33,729	
9.00 Interior Improvements																																	
9.01 Baseboard & Ceiling Moulding	4,511					6,728															13,021												
9.02 Carpet	6,160		6,751															13,064															
9.03 Doors	8,062								17,656															34,170									
9.04 Floor Tile - grout replacement/tile repair	4,985								10,918															21,130									
9.05 Hardwood Floor - Refinishing	11,338		12,426															24,048															
9.06 Stairwell Rails, Posts, Balusters - Wood - Refinishing	4,467									9,782														18,931									
9.07 Laundry Equipment	2,928					6,379								9,072								12,901							18,347				
9.08 Mailbox	1,469																																
9.09 Miscellaneous	724					1,079																											
9.10 Painting - 10 Year Cycle	6,844		7,773										12,072								2,089												
9.11 Painting - 20 Year Cycle	2,774		2,989																				18,747										
9.12 Plaster	4,871		5,532											8,592																			
9.13 Wallpaper	13,580											34,072																				82,171	
10.00 Site Improvements																																	
10.01 Concrete	4,960						7,420																					17,894					
10.02 Driveway - Gravel	625														2,390																		
10.03 Fencing - Brick, Concrete, & Iron</																																	

Table 12 - Cash Flow Projection & Benchmark Analysis - Critical Year Model

[illegible]

8 FUTURE RESERVE FUND MANAGEMENT

8.1 PLAN FOR FUTURE FUNDING

Section 23 (4) & (5) of the Condominium Property Regulation provides that the Board of Directors prepare their own plan for future funding of the reserve fund. ***They are not bound by the recommendations of the reserve fund planner, provided that the reserve fund is sufficient to repair or replace the reserve components.***

“(4) On receiving the reserve fund report under subsection (3), the board must, after reviewing the reserve fund report, approve a reserve fund plan...”

“(5) A reserve fund plan approved under subsection (4) must provide that, based on the reserve fund report, sufficient funds will be available by means of owners’ contributions, or any other method that is reasonable in the circumstances, to repair or replace the depreciating property in accordance with the reserve fund report.”

Clause (5) above provides flexibility for the board to define the funding required of the owners.

8.2 PROJECTED RESERVE FUND EXPENDITURES

For emphasis, the proposed reserve fund expenditures in the Cash Flow Projection are guidelines only in terms of timing, based on the remaining life span analysis. ***They are not presented as a repair or replacement schedule.*** Reserve fund expenditures should readily be varied to conform to actual management and maintenance plans.

APPENDICES

The following appendices give additional information regarding the development of this reserve fund study & report.

APPENDIX A – DOCUMENTS REVIEWED

	Documents Reviewed	Document Date	Contractor	Notes
	Condominium Documents			
	AGM Minutes			
	Board Meeting Minutes			
✓	By-laws	Passed June 14, 2017		
✓	Condominium Plan	January 28, 1981		
	Condominium Additional Plan Sheet (CAD)			
	Easement			
	Land Title Certificate			
	Financial Information			
	Annual Audit			
	Budget			
	Condominium Fees			
	Financial Statements			
	Reserve Fund Expenditure Report			
✓	Invoices for Reserve Fund Expenditures	November 23, 2018 June 21, 2019 October 1, 2019 December 29, 2019 August 15, 2023	Olympus Electrical Services Detailed Drywall Rainy-Day Exteriors Ltd. Sorbie's Historical Inc. Chalmers Heritage Conservation	Emergency lights Drywall & wood shellack Eavestroughing Windows in front entrances Window restoration project
✓	Quotations for Reserve Fund Expenditures	February 28, 2022 August 8, 2022	Valiant Exteriors Ltd. Better Home Design Inc.	New gutters Fence replacement
	Specifications for Reserve Fund Expenditures			
	Reserve Fund Investment Schedule			
✓	Reserve Fund Study (previous)	March 10, 2019	CRF Consulting Inc.	
	Contracts			
	Inspection Reports			
✓	Backflow Prevention	September 26, 2023	Fast Mechanical Ltd.	
✓	Balcony Structural Review	December 5, 2011	RJC Consulting Engineers	
	BEVA Report			
	Common Area Inspection			
	Deficiency Inspection			
	Elevator			
✓	Fire System	January 27, 2023	Sprouse Fire & Safety	Annual fire system inspection Annual extinguisher inspection
✓	Mechanical Equipment			Mechanical equipment spreadsheet
	Post Tensioning System Update			
	Property Condition Assessment			
✓	Roof Report	October 27, 2017 2018 June 29, 2021	RJC Engineers Chalmers Heritage Conservation RJC Engineers	Approval to pay invoice
	Sprinkler System			
✓	Window Conservation Report	May 6, 2022 January 24, 2023	Chalmers Heritage Conservation Chalmers Heritage Conservation	
	Operating & Maintenance Manuals			
	Operations & Maintenance Manual - Warranty, O&M, Permits & Compliance			
	Plans & Specifications			
	Architectural			
	Civil			
	Electrical			
	Fire Sprinkler			
	Irrigation			
	Landscape			
	Mechanical			
	Structural			
	Wet Sprinkler			
	Other			
✓	Provincial Historic Resource	April 21, 1997		Places
✓	Municipal Historic Resource	November 13, 2017		Bylaw # 43M2017

The following tables present the analysis with the component “[4.5.1.02 - Substructure - Repair Settled Piles – Rear Veranda](#)” set to zero for the board’s budgeting purposes.

Table 13 - Alternate Schedule A

	Reserve Components	Year of Acquisition	Normal Life Span (Years)	Effective Age (Years)	Remaining Life Span (Years)	Est. Year of Work	Expenditure Type	Current Replacement/ Repair Cost (\$)	Future Replacement/ Repair Cost (\$)	Current Reserve Fund Requirements (\$)	Future Reserve Fund Accumulation (\$)	Future Reserve Fund Requirements (\$)	Annual Reserve Fund Assessment (\$)	Reserve Fund Allocation
1.00	Substructure													
1.01	Foundation Elements & Floors	1928	25	19	6	2030	Repair Contingency	18,769	24,442	16,120	20,634	3,808	571	0.98%
1.02	Repair Settled Piles – Rear Veranda	1928	100	96	4	2028	Repair Contingency	0	0	0	0	0	0	0.00%
2.00	Superstructure													
2.01	Blown-In/Batt Attic Insulation	Various	30	29	1	2025	Repair Contingency	3,500	3,658	3,450	3,594	63	63	0.11%
2.02	Framing, Above Grade Floors, & Roof Structure	1928	100	70	30	2054	Repair Contingency	24,570	92,022	25,700	88,299	3,723	64	0.11%
3.00	Exterior Walls													
3.01	Brick	1928	20	18	2	2026	Repair Contingency	35,803	39,098	33,591	36,472	2,626	1,286	2.21%
3.02	Doors - Building Entry Refinish	2020	10	4	6	2030	Replacement	4,725	6,153	2,163	2,768	3,385	508	0.87%
3.03	Doors - Building Entry Repair	1928	25	12	13	2037	Repair Contingency	15,288	27,093	9,625	16,431	10,662	633	1.09%
3.04	Doors - Metal	2013	40	11	29	2053	Replacement	3,898	13,969	1,911	6,300	7,669	140	0.24%
3.05	Doors - Wood - Exterior	Various	10	8	2	2026	Repair Contingency	3,809	4,160	3,185	3,459	701	343	0.59%
3.06	Wood Components - Painting	1928	10	8	2	2026	Replacement	20,849	22,768	17,436	18,931	3,837	1,879	3.22%
3.07	Sealants	Various	5	4	1	2025	Repair Contingency	2,541	2,655	2,080	2,167	488	488	0.84%
3.08	Windows - Main Building	2023	15	1	14	2038	Phased Replacement	109,276	202,373	9,957	17,713	184,660	9,957	17.08%
3.09	Windows - Veranda	1928	10	6	4	2028	Repair Contingency	32,644	38,929	21,415	25,246	13,682	3,212	5.51%
3.10	Veranda Rehab - SWDT	1928	40	36	4	2028	Replacement	44,295	52,822	42,892	50,564	2,258	530	0.91%
4.00	Roof Assembly													
4.01	Soffits	Unknown	20	12	8	2032	Repair Contingency	13,641	19,400	9,698	13,478	5,921	638	1.09%
4.02	Gutters & Downspouts	Various	20	5	15	2039	Repair Contingency	8,401	16,258	2,908	5,390	10,868	535	0.92%
4.03	Metal Roof - Galvanized	2021	75	4	71	2095	Replacement	415,800	9,465,447	81,086	1,505,067	7,960,380	19,038	32.65%
5.00	Electrical Systems													
5.01	Exterior Lighting & Other Electrical Components	Various	20	10	10	2034	Replacement	8,499	13,199	5,261	7,938	5,261	434	0.74%
5.02	Intercom	Unknown	20	18	2	2026	Replacement	5,147	5,621	4,829	5,243	378	185	0.32%
5.03	Interior Lighting & Other Electrical Components	Various	25	11	14	2038	Phased Replacement	3,502	6,485	2,065	3,674	2,811	152	0.26%
5.04	Power Distribution	Unknown	20	10	10	2034	Repair Contingency	6,056	9,405	3,749	5,657	3,749	309	0.53%
6.00	Mechanical Systems													
6.01	Backflow Devices	Various	25	13	12	2036	Replacement	1,592	2,700	1,063	1,741	959	63	0.11%
6.02	Boiler	2009	30	15	15	2039	Replacement	30,062	58,178	20,388	37,790	20,388	1,003	1.72%
6.03	Domestic Hot Water Boiler	2013	25	11	14	2038	Replacement	17,098	31,665	10,085	17,940	13,725	740	1.27%
6.04	Domestic Hot Water Circulation System	Various	10	7	3	2027	Repair Contingency	16,513	18,845	12,357	13,981	4,864	1,555	2.67%
6.05	Domestic Hot Water Heater	2013	12	11	1	2025	Replacement	9,957	10,405	9,329	9,721	685	685	1.17%
6.06	Heaters - Cast Iron Radiators	Various	10	8	2	2026	Repair Contingency	933	1,019	781	848	172	84	0.14%
6.07	Heating - Other Components	Various	20	11	9	2033	Replacement	9,770	14,519	6,507	9,424	5,095	478	0.82%
6.08	Plumbing System - Misc. Components	Various	15	5	10	2034	Repair Contingency	8,099	12,577	3,365	5,078	7,499	619	1.06%
6.09	Sump Pumps	Unknown	10	5	5	2029	Replacement	1,972	2,458	1,103	1,355	1,103	203	0.35%
6.10	Water Softener System	Unknown	15	10	5	2029	Replacement	1,244	1,551	925	1,136	415	76	0.13%
7.00	Life Safety Systems													
7.01	Fire Alarm - 10 Year Components	Various	10	5	5	2029	Replacement	4,875	6,075	2,726	3,349	2,726	501	0.86%
7.02	Fire Alarm - 20 Year Components	Unknown	20	10	10	2034	Replacement	9,006	13,986	5,574	8,411	5,574	460	0.79%
9.00	Interior Improvements													
9.01	Baseboard & Ceiling Moulding	Unknown	15	11	4	2028	Repair Contingency	5,642	6,728	4,511	5,318	1,410	331	0.57%
9.02	Carpet	Unknown	15	14	1	2025	Replacement	6,460	6,751	6,160	6,418	332	332	0.57%
9.03	Doors	1928	15	8	7	2031	Repair Contingency	12,974	17,656	8,062	10,753	6,903	869	1.49%
9.04	Floor Tile - grout replacement/tile repair	1928	15	8	7	2031	Replacement	8,023	10,918	4,985	6,649	4,269	537	0.92%
9.05	Hardwood Floor - Refinishing	Unknown	15	14	1	2025	Repair Contingency	11,891	12,426	11,338	11,815	611	611	1.05%
9.06	Stairwell Rails, Posts, Balusters - Wood - Refinishing	Unknown	15	8	7	2031	Repair Contingency	7,188	9,782	4,467	5,957	3,825	481	0.83%
9.07	Laundry Equipment	2013/2023	8	4	4	2028	Phased Replacement	5,349	6,379	2,928	3,451	2,928	687	1.18%
9.08	Mailbox	Unknown	30	10	20	2044	Replacement	2,916	7,032	1,469	3,346	3,686	121	0.21%
9.09	Miscellaneous	2013	15	11	4	2028	Repair Contingency	905	1,079	724	853	226	53	0.09%
9.10	Painting - 10 Year Cycle	Unknown	10	9	1	2025	Replacement	7,439	7,773	6,844	7,132	641	641	1.10%
9.11	Painting - 20 Year Cycle	Unknown	20	19	1	2025	Replacement	2,860	2,989	2,774	2,890	98	98	0.17%
9.12	Plaster	1928	10	9	1	2025	Repair Contingency	5,294	5,532	4,871	5,076	457	457	0.78%
9.13	Wallpaper	Unknown	20	10	10	2034	Replacement	21,940	34,072	13,580	20,492	13,580	1,121	1.92%
10.00	Site Improvements													
10.01	Concrete	Various	20	15	5	2029	Repair Contingency	5,954	7,420	4,960	6,093	1,327	244	0.42%
10.02	Driveway - Gravel	2017	20	7	13	2037	Repair Contingency	1,348	2,390	625	1,066	1,323	79	0.13%
10.03	Fencing - Brick, Concrete, & Iron	1928	100	96	4	2028	Repair Contingency	44,400	52,948	44,780	52,791	157	37	0.06%
10.04	Fencing - Wood (New Section)	2017	25	7	18	2042	Replacement	15,018	33,167	6,160	12,918	20,249	775	1.33%
10.05	Fencing - Wood (Old Section)	Unknown	25	23	2	2026	Replacement	8,963	9,788	8,584	9,320	467	229	0.39%
10.06	Interlocking Brick	Unknown	10	3	7	2031	Repair Contingency	1,566	2,132	550	734	1,398	176	0.30%
10.07	Landscaping	Various	10	2	8	2032	Repair Contingency	4,414	6,277	1,058	1,470	4,807	518	0.89%
10.08	Painting/Staining - Exterior	Various	10	0	10	2034	Repair Contingency	7,336	11,393	0	0	11,393	940	1.61%
10.09	Railings - Wrought Iron	Unknown	10	5	5	2029	Repair Contingency	1,689	2,105	945	1,161	945	174	0.30%
10.10	Walkway - Wood	Unknown	25	15	10	2034	Replacement	3,508	5,448	2,588	3,905	1,543	127	0.22%
11.00	Site Services													
11.01	Site Services	Various	50	25	25	2049	Repair Contingency	20,000	60,109	15,831	44,278	15,831	370	0.63%
12.00	Professional Services													
12.01	Reserve Fund Study	2024	5	0	5	2029	Replacement	3,780	4,711	0	0	4,711	866	1.49%
	TOTAL RESERVES							\$ 1,108,993	\$ 10,566,937	\$ 532,116	\$ 2,173,685	\$ 8,393,252	\$ 58,309	100.00%

Table 14 - Alternate Benchmark Funding Model Contribution Schedule									
	Financial Year End - 31-Dec	Opening Balance	Recommended Annual Contribution	Lump Sum Adjustments	Special Assessment	Estimated Inflation Adjusted Expenditures	Estimated Investment Income	Percentage Increase in Recommended Annual Contributions	Closing Balance
0	2024	350,390	58,309	8000	100700	(11,600)	14716		520,516
1	2025	520,516	58,309			(52,189)	21862	0.00%	548,498
2	2026	548,498	60,708			(82,453)	23037	4.11%	549,790
3	2027	549,790	64,518			(18,845)	23091	6.28%	618,555
4	2028	618,555	65,378			(158,885)	25979	1.33%	551,027
5	2029	551,027	70,357			(24,319)	23143	7.62%	620,208
6	2030	620,208	71,472			(33,904)	26049	1.58%	683,825
7	2031	683,825	73,048			(40,488)	28721	2.21%	745,105
8	2032	745,105	74,910			(25,677)	31294	2.55%	825,633
9	2033	825,633	76,098			(14,519)	34677	1.58%	921,888
10	2034	921,888	76,772			(105,950)	38719	0.89%	931,430
11	2035	931,430	81,673			(24,787)	39120	6.38%	1,027,435
12	2036	1,027,435	82,802			(55,172)	43152	1.38%	1,098,218
13	2037	1,098,218	85,322			(76,394)	46125	3.04%	1,153,271
14	2038	1,153,271	88,846			(300,978)	48437	4.13%	989,576
15	2039	989,576	102,706			(98,273)	41562	15.60%	1,035,572
16	2040	1,035,572	107,300			(51,807)	43494	4.47%	1,134,559
17	2041	1,134,559	109,676			(3,310)	47651	2.21%	1,288,576
18	2042	1,288,576	109,827			(42,915)	54120	0.14%	1,409,608
19	2043	1,409,608	111,827			(15,109)	59204	1.82%	1,565,529
20	2044	1,565,529	112,522			(49,743)	65752	0.62%	1,694,060
21	2045	1,694,060	114,800			(45,701)	71151	2.02%	1,834,309
22	2046	1,834,309	116,889			(249,478)	77041	1.82%	1,778,761
23	2047	1,778,761	128,388			(45,448)	74708	9.84%	1,936,409
24	2048	1,936,409	130,462			(93,885)	81329	1.62%	2,054,315
25	2049	2,054,315	134,746			(169,286)	86281	3.28%	2,106,057
26	2050	2,106,057	142,724			(22,820)	88454	5.92%	2,314,416
27	2051	2,314,416	143,763			(34,557)	97205	0.73%	2,520,827
28	2052	2,520,827	145,376			(80,272)	105875	1.12%	2,691,806
29	2053	2,691,806	149,074			(440,633)	113056	2.54%	2,513,302
30	2054	2,513,302	169,398			(304,071)	105559	13.63%	2,484,188

Table 15 - Alternate Moderate Funding Model Contribution Schedule									
	Financial Year End - 31-Dec	Opening Balance	Recommended Annual Contribution (*=Actual)	Lump Sum Adjustments	Special Assessment	Estimated Inflation Adjusted Expenditures	Estimated Investment Income	Percentage Increase in Recommended Annual Contributions	Closing Balance (Coloured cell = balance below minimum recommended balance)
0	2024	350,390	20,000 *	8,000		(11,600)	14,716		381,506
1	2025	381,506	23,000			(52,189)	16,023	15.00%	368,341
2	2026	368,341	26,450			(82,453)	15,470	15.00%	327,808
3	2027	327,808	30,418			(18,845)	13,768	15.00%	353,149
4	2028	353,149	34,980			(158,885)	14,832	15.00%	244,076
5	2029	244,076	40,227			(24,319)	10,251	15.00%	270,236
6	2030	270,235	44,250			(33,904)	11,350	10.00%	291,931
7	2031	291,931	48,675			(40,488)	12,261	10.00%	312,379
8	2032	312,379	53,542			(25,677)	13,120	10.00%	353,365
9	2033	353,364	58,897			(14,519)	14,841	10.00%	412,583
10	2034	412,583	64,786			(105,950)	17,328	10.00%	388,748
11	2035	388,748	71,265			(24,787)	16,327	10.00%	451,553
12	2036	451,553	78,391			(55,172)	18,965	10.00%	493,738
13	2037	493,738	86,230			(76,394)	20,737	10.00%	524,311
14	2038	524,311	93,991			(300,978)	22,021	9.00%	339,346
15	2039	339,346	101,510			(98,273)	14,253	8.00%	356,836
16	2040	356,836	109,631			(51,807)	14,987	8.00%	429,648
17	2041	429,648	118,402			(3,310)	18,045	8.00%	562,784
18	2042	562,784	127,874			(42,915)	23,637	8.00%	671,380
19	2043	671,380	138,104			(15,109)	28,198	8.00%	822,573
20	2044	822,572	149,152			(49,743)	34,548	8.00%	956,530
21	2045	956,529	161,084			(45,701)	40,174	8.00%	1,112,087
22	2046	1,112,087	173,971			(249,478)	46,708	8.00%	1,083,288
23	2047	1,083,288	187,889			(45,448)	45,498	8.00%	1,271,227
24	2048	1,271,227	202,920			(93,885)	53,392	8.00%	1,433,654
25	2049	1,433,654	219,154			(169,286)	60,213	8.00%	1,543,735
26	2050	1,543,735	236,686			(22,820)	64,837	8.00%	1,822,438
27	2051	1,822,438	255,621			(34,557)	76,542	8.00%	2,120,044
28	2052	2,120,044	276,070			(80,272)	89,042	8.00%	2,404,884
29	2053	2,404,884	298,156			(440,633)	101,005	8.00%	2,363,412
30	2054	2,363,412	322,008			(304,071)	99,263	8.00%	2,480,613

Table 16 - Alternate Critical Year Funding Model Contribution Schedule									
	Financial Year End - 31-Dec	Opening Balance	Recommended Annual Contribution (*=Actual)	Lump Sum Adjustments	Special Assessment	Estimated Inflation Adjusted Expenditures	Estimated Investment Income	Percentage Increase in Recommended Annual Contributions	Closing Balance (Coloured cell = balance below minimum recommended balance)
0	2024	350,390	20,000 *	8,000		(11,600)	14,716		381,506
1	2025	381,506	22,400			(52,189)	16,023	12.00%	367,741
2	2026	367,741	25,088			(82,453)	15,445	12.00%	325,821
3	2027	325,821	28,099			(18,845)	13,684	12.00%	348,760
4	2028	348,760	31,470			(158,885)	14,648	12.00%	235,992
5	2029	235,992	35,247			(24,319)	9,912	12.00%	256,832
6	2030	256,832	38,595			(33,904)	10,787	9.50%	272,310
7	2031	272,310	42,262			(40,488)	11,437	9.50%	285,521
8	2032	285,521	46,277			(25,677)	11,992	9.50%	318,113
9	2033	318,113	50,673			(14,519)	13,361	9.50%	367,627
10	2034	367,627	55,487			(105,950)	15,440	9.50%	332,605
11	2035	332,605	59,926			(24,787)	13,969	8.00%	381,713
12	2036	381,713	64,720			(55,172)	16,032	8.00%	407,293
13	2037	407,293	69,898			(76,394)	17,106	8.00%	417,903
14	2038	417,903	74,790			(300,978)	17,552	7.00%	209,267
15	2039	209,267	80,026			(98,273)	8,789	7.00%	199,810
16	2040	199,810	85,628			(51,807)	8,392	7.00%	242,022
17	2041	242,022	91,621			(3,310)	10,165	7.00%	340,498
18	2042	340,498	98,035			(42,915)	14,301	7.00%	409,919
19	2043	409,919	104,897			(15,109)	17,217	7.00%	516,923
20	2044	516,923	112,240			(49,743)	21,711	7.00%	601,131
21	2045	601,131	120,097			(45,701)	25,247	7.00%	700,774
22	2046	700,774	128,504			(249,478)	29,433	7.00%	609,232
23	2047	609,232	137,499			(45,448)	25,588	7.00%	726,872
24	2048	726,872	147,124			(93,885)	30,529	7.00%	810,640
25	2049	810,640	155,951			(169,286)	34,047	6.00%	831,352
26	2050	831,352	165,309			(22,820)	34,917	6.00%	1,008,757
27	2051	1,008,757	175,227			(34,557)	42,368	6.00%	1,191,795
28	2052	1,191,795	185,741			(80,272)	50,055	6.00%	1,347,320
29	2053	1,347,320	196,885			(440,633)	56,587	6.00%	1,160,159
30	2054	1,160,159	208,698			(304,071)	48,727	6.00%	1,113,513

Table 17 - Alternate Benchmark Model Cash Flow Projection

Financial Year End - 31-Dec		Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year
		2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
OPENING BALANCE		350,390	520,516	548,498	549,790	618,555	551,027	620,208	683,825	745,105	825,633	921,888	931,430	1,027,435	1,098,218	1,153,271	989,576	1,035,572	1,134,559	1,288,576	1,409,608	1,565,529	1,694,060	1,834,309	1,778,761	1,936,409	2,054,315	2,106,057	2,314,416	2,520,827	2,691,806	2,513,302	
Lump Sum Contributions		8000																															
Reserve Fund Contributions		58,309	58,309	60,708	64,518	65,378	70,357	71,472	73,048	74,910	76,098	76,772	81,673	82,802	85,322	88,846	102,706	107,300	109,676	109,827	111,827	112,522	114,800	116,889	128,388	130,462	134,746	142,724	143,763	145,376	149,074	169,398	
Reserve Fund Special Assessment		100700																															
Reserve Fund Investment Income (approximation)		14,716	21,862	23,037	23,091	25,979	23,143	26,049	28,721	31,294	34,677	38,719	39,120	43,152	46,125	48,437	41,562	43,494	47,651	54,120	59,204	65,752	71,151	77,041	74,708	81,329	86,281	88,454	97,205	105,875	113,056	105,559	
Investment Rate		4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	
TOTAL CASH RESOURCES		532,116	600,687	632,243	637,399	709,912	644,527	717,729	785,593	851,310	936,407	1,037,380	1,052,222	1,153,390	1,229,665	1,290,554	1,133,844	1,186,365	1,291,886	1,452,523	1,580,638	1,743,803	1,880,010	2,028,239	1,981,857	2,148,200	2,275,343	2,337,236	2,555,384	2,772,077	2,953,935	2,788,259	
RESERVE FUND EXPENDITURES		Current RFR																															
1.00 Substructure																																	
1.01 Foundation Elements & Floors	16,120							24,442																									
1.02 Repair Settled Piles – Rear Veranda	0					0																											
2.00 Superstructure																																	
2.01 Blown-In/Batt Attic Insulation	3,450		3,658																														
2.02 Framing, Above Grade Floors, & Roof Structure	25,700																														92,022		
3.00 Exterior Walls																																	
3.01 Brick	33,591			39,098																				94,292									
3.02 Doors - Building Entry Refinish	2,163							6,153											9,556										14,840				
3.03 Doors - Building Entry Repair	9,625														27,093																		
3.04 Doors - Metal	1,911																														13,969		
3.05 Doors - Wood - Exterior	3,185			4,160													6,460							10,032									
3.06 Wood Components - Painting	17,436			22,768													35,358							54,909									
3.07 Sealants	2,080		2,655					3,309					4,124						5,139				6,404						7,980				
3.08 Windows - Main Building	9,957	8,000																													391,649		
3.09 Windows - Veranda	21,415					38,929											60,455										93,885						
3.10 Veranda Rehab - SWDT	42,892					52,822																											
4.00 Roof Assembly																																	
4.01 Soffits	9,698									19,400																					46,786		
4.02 Gutters & Downspouts	2,908																		16,258														
4.03 Metal Roof - Galvanized	81,086																																
5.00 Electrical Systems																																	
5.01 Exterior Lighting & Other Electrical Components	5,261											13,199																			31,831		
5.02 Intercom	4,829			5,621																			13,556										
5.03 Interior Lighting & Other Electrical Components	2,065															6,485																	
5.04 Power Distribution	3,749											9,405																			22,683		
6.00 Mechanical Systems																																	
6.01 Backflow Devices	1,063																2,700																
6.02 Boiler	20,388																		58,178														
6.03 Domestic Hot Water Boiler	10,085																	31,665															
6.04 Domestic Hot Water Circulation System	12,357				18,845										29,265										45,448								
6.05 Domestic Hot Water Heater	9,329		10,405																									29,926					
6.06 Heaters - Cast Iron Radiators	781			1,019												1,583								2,458									
6.07 Heating - Other Components	6,507										14,519																			35,016			
6.08 Plumbing System - Misc. Components	3,365											12,577																24,340					
6.09 Sump Pumps	1,103						2,458												3,817										5,927				
6.10 Water Softener System	925						1,551															3,001											
7.00 Life Safety Systems																																	
7.01 Fire Alarm - 10 Year Components	2,726						6,075												9,435										14,652				
7.02 Fire Alarm - 20 Year Components	5,574											13,986																			33,729		
9.00 Interior Improvements																																	
9.01 Baseboard & Ceiling Moulding	4,511					6,728																13,021											
9.02 Carpet	6,160		6,751																13,064														
9.03 Doors	8,062									17,656																							
9.04 Floor Tile - grout replacement/tile repair	4,985									10,918																							
9.05 Hardwood Floor - Refinishing	11,338		12,426																														
9.06 Stairwell Rails, Posts, Balusters - Wood - Refinishing	4,467									9,782																							
9.07 Laundry Equipment	2,928					6,379								9,072																			
9.08 Mailbox	1,469																																
9.09 Miscellaneous	724				1,079																												
9.10 Painting - 10 Year Cycle	6,844		7,773																														
9.11 Painting - 20 Year Cycle	2,774						2,989																										

Table 18 - Alternate Moderate Model Cash Flow Projection

Financial Year End - 31-Dec		Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year			
		2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
OPENING BALANCE		350,390	381,506	368,341	327,808	353,149	244,076	270,235	291,931	312,379	353,364	412,583	388,748	451,553	493,738	524,311	339,346	356,836	429,648	562,784	671,380	822,572	956,529	1,112,087	1,083,288	1,271,227	1,433,654	1,543,735	1,822,438	2,120,044	2,404,884	2,363,412	
Lump Sum Contributions		8,000																															
Reserve Fund Contributions		20,000	23,000	26,450	30,418	34,980	40,227	44,250	48,675	53,542	58,897	64,786	71,265	78,391	86,230	93,991	101,510	109,631	118,402	127,874	138,104	149,152	161,084	173,971	187,889	202,920	219,154	236,686	255,621	276,070	298,156	322,008	
Reserve Fund Special Assessment																																	
Reserve Fund Interest Income		14,716	16,023	15,470	13,768	14,832	10,251	11,350	12,261	13,120	14,841	17,328	16,327	18,965	20,737	22,021	14,253	14,987	18,045	23,637	28,198	34,548	40,174	46,708	45,498	53,392	60,213	64,837	76,542	89,042	101,005	99,263	
Investment Rate		4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	
TOTAL CASH RESOURCES		393,106	420,530	410,261	371,994	402,962	294,555	325,835	352,867	379,041	427,102	494,698	476,340	548,910	600,705	640,323	455,109	481,455	566,095	714,295	837,682	1,006,273	1,157,788	1,332,766	1,316,675	1,527,538	1,713,021	1,845,258	2,154,601	2,485,156	2,804,045	2,784,684	
RESERVE FUND EXPENDITURES																																	
Current RFR																																	
1.00 Substructure																																	
1.01 Foundation Elements & Floors		16,120						24,442																									
1.02 Repair Settled Piles – Rear Veranda		0					0																										
2.00 Superstructure																																	
2.01 Blown-In/Batt Attic Insulation		3,450	3,658																														
2.02 Framing, Above Grade Floors, & Roof Structure		25,700																														92,022	
3.00 Exterior Walls																																	
3.01 Brick		33,591		39,098																				94,292									
3.02 Doors - Building Entry Refinish		2,163						6,153										9,556										14,840					
3.03 Doors - Building Entry Repair		9,625													27,093																		
3.04 Doors - Metal		1,911																													13,969		
3.05 Doors - Wood - Exterior		3,185			4,160									6,460										10,032									
3.06 Wood Components - Painting		17,436		22,768										35,358										54,909									
3.07 Sealants		2,080		2,655				3,309				4,124						5,139						6,404				7,980					
3.08 Windows - Main Building		9,957	8,000													202,373															391,649		
3.09 Windows - Veranda		21,415				38,929									60,455											93,885							
3.10 Veranda Rehab - SWDT		42,892				52,822																											
4.00 Roof Assembly																																	
4.01 Soffits		9,698							19,400																					46,786			
4.02 Gutters & Downspouts		2,908															16,258																
4.03 Metal Roof - Galvanized		81,086																															
5.00 Electrical Systems																																	
5.01 Exterior Lighting & Other Electrical Components		5,261										13,199																				31,831	
5.02 Intercom		4,829		5,621																				13,556									
5.03 Interior Lighting & Other Electrical Components		2,065														6,485																	
5.04 Power Distribution		3,749										9,405																				22,683	
6.00 Mechanical Systems																																	
6.01 Backflow Devices		1,063												2,700																			
6.02 Boiler		20,388															58,178																
6.03 Domestic Hot Water Boiler		10,085														31,665																	
6.04 Domestic Hot Water Circulation System		12,357			18,845										29,265									45,448									
6.05 Domestic Hot Water Heater		9,329		10,405											17,646												29,926						
6.06 Heaters - Cast Iron Radiators		781			1,019									1,583										2,458									
6.07 Heating - Other Components		6,507									14,519																			35,016			
6.08 Plumbing System - Misc. Components		3,365										12,577																24,340					
6.09 Sump Pumps		1,103					2,458										3,817												5,927				
6.10 Water Softener System		925					1,551															3,001											
7.00 Life Safety Systems																																	
7.01 Fire Alarm - 10 Year Components		2,726					6,075										9,435												14,652				
7.02 Fire Alarm - 20 Year Components		5,574										13,986																				33,729	
9.00 Interior Improvements																																	
9.01 Baseboard & Ceiling Moulding		4,511				6,728															13,021												
9.02 Carpet		6,160	6,751															13,064															
9.03 Doors		8,062							17,656																34,170								
9.04 Floor Tile - grout replacement/tile repair		4,985							10,918																21,130								
9.05 Hardwood Floor - Refinishing		11,338	12,426							9,782								24,048															
9.06 Stairwell Rails, Posts, Balusters - Wood - Refinishing		4,467																															
9.07 Laundry Equipment		2,928			6,379									9,072								12,901						18,347					
9.08 Mailbox		1,469																															
9.09 Miscellaneous		724			1,079																2,089												
9.10 Painting - 10 Year Cycle		6,844	7,773									12,072												18,747									
9.11 Painting - 20 Year Cycle		2,774	2,989																					7,207									
9.12 Plaster		4,871	5,532									8,592												13,342									
9.13 Wallpaper		13,580										34,072																				82,171	
10.00 Site Improvements																																	
10.01 Concrete		4,960					7,420																					17,894					
10.02 Driveway - Gravel		625																															

Table 19 - Alternate Critical Year Model Cash Flow Projection

Financial Year End - 31-Dec		Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year				
		2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
OPENING BALANCE		350,390	381,506	367,741	325,821	348,760	235,992	256,832	272,310	285,521	318,113	367,627	332,605	381,713	407,293	417,903	209,267	199,810	242,022	340,498	409,919	516,923	601,131	700,774	609,232	726,872	810,640	831,352	1,008,757	1,191,795	1,347,320	1,160,159	
Lump Sum Contributions		8000																															
Reserve Fund Contributions		20,000	22,400	25,088	28,099	31,470	35,247	38,595	42,262	46,277	50,673	55,487	59,926	64,720	69,898	74,790	80,026	85,628	91,621	98,035	104,897	112,240	120,097	128,504	137,499	147,124	155,951	165,309	175,227	185,741	196,885	208,698	
Reserve Fund Special Assessment																																	
Reserve Fund Interest Income		14,716	16,023	15,445	13,684	14,648	9,912	10,787	11,437	11,992	13,361	15,440	13,969	16,032	17,106	17,552	8,789	8,392	10,165	14,301	17,217	21,711	25,247	29,433	25,588	30,529	34,047	34,917	42,368	50,055	56,587	48,727	
Investment Rate		4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	
TOTAL CASH RESOURCES		393,106	419,930	408,274	367,604	394,878	281,151	306,214	326,009	343,789	382,146	438,555	406,500	462,465	494,296	510,245	298,082	293,829	343,809	452,834	532,033	650,874	746,475	858,711	772,319	904,524	1,000,638	1,031,578	1,226,352	1,427,591	1,600,792	1,417,584	
RESERVE FUND EXPENDITURES																																	
Current RFR																																	
1.00 Substructure																																	
1.01 Foundation Elements & Floors		16,120						24,442																									
1.02 Repair Settled Piles – Rear Veranda		0				0																											
2.00 Superstructure																																	
2.01 Blown-In/Batt Attic Insulation		3,450	3,658																														
2.02 Framing, Above Grade Floors, & Roof Structure		25,700																															92,022
3.00 Exterior Walls																																	
3.01 Brick		33,591		39,098																				94,292									
3.02 Doors - Building Entry Refinish		2,163						6,153										9,556											14,840				
3.03 Doors - Building Entry Repair		9,625													27,093																		
3.04 Doors - Metal		1,911																													13,969		
3.05 Doors - Wood - Exterior		3,185			4,160									6,460										10,032									
3.06 Wood Components - Painting		17,436		22,768										35,358									54,909										
3.07 Sealants		2,080		2,655				3,309					4,124					5,139					6,404						7,980				
3.08 Windows - Main Building		9,957	8,000													202,373															391,649		
3.09 Windows - Veranda		21,415				38,929										60,455											93,885						
3.10 Veranda Rehab - SWDT		42,892				52,822																											
4.00 Roof Assembly									19,400																						46,786		
4.01 Soffits		9,698																															
4.02 Gutters & Downspouts		2,908															16,258																
4.03 Metal Roof - Galvanized		81,086																															
5.00 Electrical Systems																																	
5.01 Exterior Lighting & Other Electrical Components		5,261										13,199																					31,831
5.02 Intercom		4,829		5,621																			13,556										
5.03 Interior Lighting & Other Electrical Components		2,065														6,485																	
5.04 Power Distribution		3,749										9,405																					22,683
6.00 Mechanical Systems																																	
6.01 Backflow Devices		1,063												2,700																			
6.02 Boiler		20,388															58,178																
6.03 Domestic Hot Water Boiler		10,085														31,665																	
6.04 Domestic Hot Water Circulation System		12,357			18,845											29,265									45,448								
6.05 Domestic Hot Water Heater		9,329	10,405													17,646										45,448							
6.06 Heaters - Cast Iron Radiators		781			1,019									1,583																			
6.07 Heating - Other Components		6,507									14,519												2,458								35,016		
6.08 Plumbing System - Misc. Components		3,365										12,577																					
6.09 Sump Pumps		1,103					2,458										3,817											24,340					
6.10 Water Softener System		925					1,551															3,001						5,927					
7.00 Life Safety Systems																																	
7.01 Fire Alarm - 10 Year Components		2,726					6,075										9,435												14,652				
7.02 Fire Alarm - 20 Year Components		5,574										13,986																					33,729
9.00 Interior Improvements																																	
9.01 Baseboard & Ceiling Moulding		4,511				6,728															13,021												
9.02 Carpet		6,160	6,751															13,064															
9.03 Doors		8,062									17,656														34,170								
9.04 Floor Tile - grout replacement/tile repair		4,985									10,918														21,130								
9.05 Hardwood Floor - Refinishing		11,338	12,426															24,048															
9.06 Stairwell Rails, Posts, Balusters - Wood - Refinishing		4,467									9,782																						
9.07 Laundry Equipment		2,928				6,379								9,072								12,901								18,347			
9.08 Mailbox		1,469																															
9.09 Miscellaneous		724				1,079															2,089												
9.10 Painting - 10 Year Cycle		6,844	7,773										12,072																				
9.11 Painting - 20 Year Cycle		2,774	2,989																				18,747										
9.12 Plaster		4,871	5,532											8,592																			
9.13 Wallpaper		13,580										34,072																					82,171
10.00 Site Improvements																																	
10.01 Concrete		4,960																															

- 1 As determined by provided documentation or counted/observed during site inspection.
- 2 No plans provided. Assembly is assumed based on typical construction for the age of the property or by visual inspection or through conversations with persons familiar with the project.
- 3 <http://www.financialpost.com/personal-finance/rates/gic-annual.html>, <http://dollarguide.ca/index/products/1/3/>
- 4 For example, roof coverings, windows, doors, HVAC (heating, ventilating, & air-conditioning), fencing, painting, etc. are items that wear out and require replacement.
- 5 Example impact to a fictitious unit's assessed condominium fee for an increase to the reserve fund portion:
 - a. Assume the unit's assessed total fee (operating & reserve) is \$900/month and the reserve fund portion is \$100/month (\$800 + \$100 = \$900).
 - b. If there is a recommendation for an increase of 25% to the reserve fund contributions, then the unit's reserve fund portion will increase to \$125 (\$100 + \$100*0.25 = \$125). Therefore, the new condominium fee for the unit will be \$925 (\$800 + \$125) assuming there is no increase in the operating portion of the fee.
 - c. The 25% increase in the reserve fund portion of the condominium fee has resulted in an increase of 2.78% for the overall condominium fee - $\left(\frac{\$925 - \$900}{\$900} \right) * 100\% = 2.78\%$.
- 6 Important article regarding parking garage maintenance: <https://www.reminetwork.com/articles/guide-condo-parking-garage-maintenance/>
- 7
- 8 Assuming the inflation rate is zero and the investment rate is zero, a component with a future replacement cost of \$100,000 and an estimated life span of 10 years would experience a proportionate depreciation of \$10,000 per year. That means the corporation should save \$10,000 per year for that component. It also implies that \$10,000 per year should be charged to the owners in those years to ensure they are paying for the depreciation they have used. Not doing so imposes the uncollected depreciation onto future owners who may not have owned the property at the time the depreciation occurred. This is called a "benchmark shortfall" or a "reserve fund shortfall". As this shortfall rises, it can have a negative impact on property values. When the inflation and investment rates are not zero, the exact number may be more or less than the \$10,000 for this example, depending on whether the real return is positive or negative.

LIMITING CONDITIONS & ASSUMPTIONS

THIS REPORT IS SUBJECT TO THE FOLLOWING LIMITING CONDITIONS

This signed version of this report is valid for 5 years from the date of issue or until a subsequent report is issued, whether by **eyre.consulting Inc.** (hereinafter referred to as “the planner”) or by another reserve fund planning entity.

The planner reserves the right, at its sole discretion, to issue an updated report should information that existed at the time of the report, but was undiscovered for any reason, become known and, in the planner’s opinion, this information will materially change any or all analyses, conclusions, or estimates contained herein.

The legal and survey descriptions of the property as stated herein are those which are recorded by the Registrar of the requisite Land Titles Office and are assumed to be correct.

“[Documents Reviewed](#)” indicates what documents were provided for the preparation of this study. Quantities are estimates based on provided drawings take-offs, condominium plans take-offs, contractor quotations, and/or site measurements, and are considered approximations only.

No legal survey, soil tests, engineering investigations, detailed quantity survey compilations, nor exhaustive physical examinations have been made. Accordingly, no responsibility is assumed concerning these matters or other technical and engineering techniques which would be required to discover any inherent or hidden condition of the property.

This study makes no assertion regarding the compliance of any part of the property or its improvements with any applicable codes or regulations. This report assumes construction followed all building codes, fire codes, town & provincial by-laws, and construction practices in existence at the time of construction.

Sketches, drawings, diagrams, photographs, if any, presented in this report are included for the sole purpose of illustration.

To arrive at supportable replacement cost estimates, it was found necessary to utilize both documented and other cost data. A concerted effort has been put forth to verify the accuracy of the information contained herein. Accordingly, the information is believed to be reliable and correct, however no guarantee as to the accuracy of the data is implied.

This document is for planning purposes only. This document is **not** a building condition report and should not be used for investment analysis. A building condition report for the purposes of investment analysis generally will require a substantially deeper investigation.

Interest payments for any loans incurred after the report date have not been considered in this reserve fund analysis.

Unless otherwise noted, all estimates are expressed in Canadian currency.

The agreed compensation for services rendered in preparing this report does not include fees for consultations and/or arbitrations, if any. Should personal appearances be required regarding this report, additional fees will have to be negotiated.