



March 20, 2023

Board of Directors
Halton Condominium Corporation No. 78
c/o Central Erin Property Management
151 Randall St.
Oakville, ON L6J 1P5

Attention: Steven Peros, Property Manager stevenperos@centrallerin.com

Dear Board

**Subject: Reflection Bay: 2222-2228 Marine Dr., & 1-31 East, Oakville
2023 Final Reserve Fund Study Update without Site Inspection**

Please find enclosed a final copy of our Reserve Fund Study and one copy of the Notice of Future Funding (formerly called "Form 15") for your Corporation.

The Board has adopted the draft report without any requested modifications.

FUNDING PLAN

We understand that the Board has elected to adopt Scenario 2 where the required increase is phased-in over a number of years. In our opinion, this phased-in approach meets the requirements of the Condominium Act to provide adequate funding. We have left in the inflation-matched funding scenario (Scenario 1) in the report as a reference point.

NOTICE OF FUTURE FUNDING

As requested, also attached is the Notice of Future Funding. This form includes:

- The main "Notice of Future Funding of the Reserve Fund" - this needs to be signed, sealed and dated by the Board, with the implementation date completed.
- The "Summary of Reserve Fund Study".
- The 30 Year Cash Flow Table for the option you indicated you would follow.
- The "Summary of Proposed Plan for Future Funding of the Reserve Fund".
- The "Contribution Table" and "Differences Between the Reserve Fund Study and the Proposed Plan for Future Funding".

This form should be signed by the Board and distributed to the Unit Owners as required by the Condominium Act.

Should you have any questions, please do not hesitate to contact our office.

Yours sincerely,

Mitchell Berry, BSE
Building Sciences Consultant

Cameron Wynn, M.Eng.
Project Manager

Encl. Notice of Future Funding
Final Reserve Fund Study Update

WSP Ref.: 221-13303-00

Suite 300
4 Hughson Street South
Hamilton, ON, Canada L8N 3Z1

T: +1 905 529-4414
wsp.com



FINAL Reserve Fund Study Update

(without a site inspection) for

Reflection Bay
2222-2288 Marine Dr. and 1-31 East St., Oakville, Ontario
March 20, 2023

Prepared For:

HCC 78 c/o Central Erin Property Management

151 Randall St.
Oakville, ON L6J 1P5
Contact: Steven Peros

Prepared By:

WSP Canada Inc.

4 Hughson Street South, Suite 300
Hamilton, ON L8N 3Z1
Contact: Cameron Wynn, M.Eng.

Project Number **221-13303-00**



Purpose

The purpose of a Reserve Fund Study is to plan for major repairs and replacement of the common elements of the Corporation, and to determine the level of contributions that need to be made to the reserve fund so that it is adequate to cover these future expenditures.

The study consists of two parts; the Financial Analysis and the Physical Analysis. The Financial Analysis contains an evaluation of the current reserve fund balance and the existing level of annual contributions against the future expenditures, and presents a future funding plan. The Physical Analysis is an inventory of the common element components included in the study, with estimates of future repair and replacements costs and timing, based on age, reported performance and conditions observed.

The Ontario Condominium Act requires every condominium corporation to complete a comprehensive reserve fund study, followed by updates every three years at a minimum, alternating between an update with a site inspection and one without a site inspection. This study is an update to our previous study completed in 2020 and is not based on a site inspection

Corporation Description

The Condominium Corporation consists of six, three-storey townhouse buildings with a total of 48 residential suites. The buildings are comprised of wood framed structures supported on concrete foundations. Each unit is equipped with an attached one car garage. The buildings are clad with masonry brick, vinyl siding and vinyl framed windows. There are no recreational facilities or shared facilities on site that are maintained by the Corporation.

The complex was constructed in 1977. The Corporation's fiscal year end is April 30th.

Key Findings

This update did not include a site visit. The following is a summary of the information gathered during interviews conducted with the Board and/or Property Management, and any resulting changes made to the reserve fund study:

Structure

Three concrete garage slabs have been replaced throughout the development between 2009-2014. It is unknown if there any ongoing issues with other garage floor slabs at this time. During the previous Reserve Fund Update the Board had requested an allowances to be included to replace two garage floor slabs, between 2021-2022. There is no record of these repairs being completed and this allowance has been carried forward to the 2025 fiscal year.

As recommended in the Evaluation of Cracks in Brick Cladding report issued by WSP in 2016, crack monitoring devices were installed at a vertical crack in the foundation and a horizontal crack in the masonry at the northeast corner of 2222 Marine Drive. Over the past four years WSP observed >4mm displacement at each crack. Movement appears to be cyclical (expansion and contraction), likely result of temperature cycles between winter and summer months. The cracks do not appear to be growing larger. A preliminary budget is included in the near future for repairs to help control movement of the foundation and masonry wall. This budget should be updated once the scope of work is fully understood and quotes have been provided.

Building Envelope

During the previous Reserve Fund Update with a Site Visit we noted localized masonry repairs throughout the development. It is our understanding masonry repairs are performed on an as needed basis.

We understand all sealants throughout the development were replaced during the 2018 fiscal year. Allowances for future sealant replacement projects have been updated to reflect recent replacements.

Replacement of insulated glazing units is becoming more and more frequent. The Board is considering advancing Window Replacements to avoid continual replacement of failed units, take advantage of modern technology and to improve building aesthetics. As continual replacement of the window glazing is ongoing with an average of 15-20 units replaced every year, the full window replacement project has been extended into a future repair project.

Please note material costs for windows and doors have greatly increased since the previous reserve fund study. Costs have been increased to match current market conditions.

Property Management has advised several units are experiencing signs of mold within the attic space and will require remediation. They have advised that 80% of the units will require remediation in the current fiscal year. Attic Insulation repairs are also anticipated during the current fiscal year.

Otherwise, no major problems with the roof or wall cladding systems were noted or reported.

Site

The previous Reserve Fund Study mentioned that the wood retaining wall adjacent Unit 17 is deteriorated and some members have rotted. The tie-backs securing the face of the wall have rotated due to poor initial compaction of the back-fill. A budget was included to replace the wood retaining wall in the near future with the assumption that wood components would be replaced with dry stack precast units to match other retaining walls throughout the development. We assumed that periodic re-leveling of all stone retaining walls will be managed from the landscaping allowance. Based on audited financial statements this project has not been completed as previously allowed and thus has been

carried forward.

We understand all wood fencing throughout the development was replaced during the 2018 fiscal year. Costs were more than previously budgeted due to the close proximity of buried site services to the fence post footings. Allowances for future fencing replacement have been adjusted accordingly.

Six unit driveways were replaced during the 2020 fiscal year. The previous Reserve Fund Study had the remaining asphalt driveways to be replaced over a 5 year period. Audited financials do not show any further repairs to the asphalt driveway therefore, this work has been carried forward to be replaced over a 5 year period starting this fiscal year.

Electrical

Management reports that the pole fixtures were recently re-lamed to LED fixtures. The poles were assessed at the time (by others) and reportedly are in good condition. Reflecting management's reporting, associated projects for renewal have been adjusted. Otherwise, no major problems with the electrical systems were noted or reported. No changes were made to the repair and replacement projects in the study, apart from updating of any costs and timing that have changed since the last study.

Financial Analysis

Our analysis indicates that an increase in the annual contributions is required. The primary factors contributing to this include:

- Recent inflation rates are unusually (and anomalously) high due to a number of global factors affecting supply chains, production and materials availability. The published Construction Price Index rate provided by Statistics Canada for 2021 was 22.9% higher than previous years. Similar increases for 2022 were observed but not yet reported by Statistics Canada. It is difficult to predict if pricing will normalize to pre-Covid levels, however some predict that this may be unlikely and that construction pricing will remain at high levels for the foreseeable future.
- Costs associated with replacement of windows and vinyl siding has increased substantially since the last update, for previously mentioned reasons, adding approximately \$324,000 in expenses relative to the last study.
- Unplanned expenses relating to the remediation of mold in attics which has added approximately \$143,000 in costs.
- The corporation is expending approximately \$100,000 more to replace asphalt (2022 and 2023 fiscal years) relative to budgeted allowances from the previous study. \$600,000 in expenditures (not adjusting for the time-value of money) over the 30year analysis period of the study.
- At the request of Property Management, an annual landscaping renewal/repair allowance of \$20,000 has been added introducing

For this reason we have included the following funding scenarios for consideration:

- Scenario 1 shows the required increase occurring in the next fiscal year, with only inflationary increases subsequently (until the next critical year); and,
- Scenario 2 shows the required increase phased-in over several years. While this approach generally results in higher total contributions over the study term, in our opinion it also meets the requirements of the Condominium Act to provide adequate funding.

To avoid unnecessarily penalizing the study with present inflation conditions, for this analysis we have used the 30-year CPI average inflation rate (for the years 1992-2021) of 3.2%. For the interest calculations, the study continuously varies the 5-year rolling average rates provided by the Bank of Canada, starting with the rate of return you are receiving now up to the 30-year average for the majority of the study.

Scenario 1 - Inflation Matched

Description:

This scenario shows the one-time increase required so that future annual increases keep pace with inflation. This funding model is calculated using a 2% interest rate for fiscal year 2023, 2.5% for year 2024, 2.7% for the year 2025, 3% for the year 2026, 3.5% for the year 2027 and 4.0% thereafter.

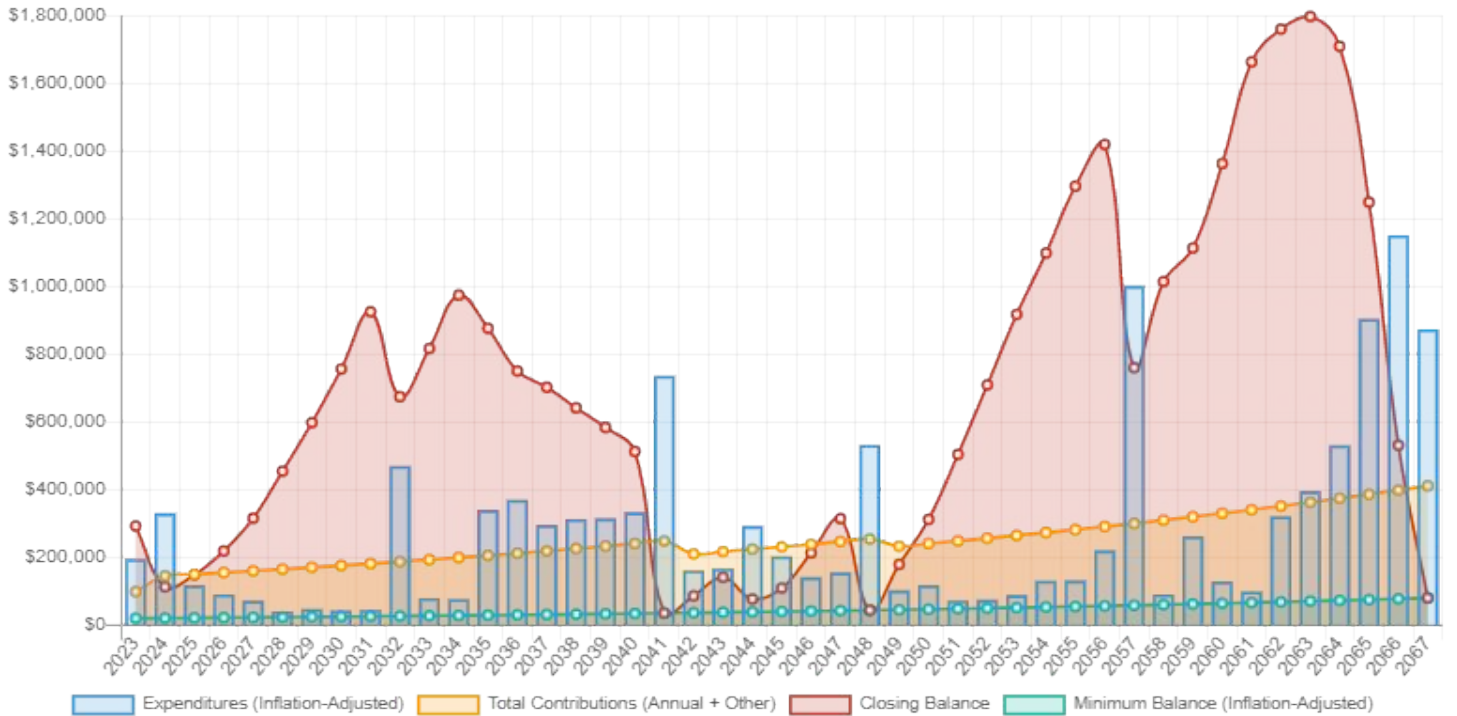
Assumptions:

Opening Balance of the Reserve Fund:	\$382,458	Interest Rate Earned:	4.0%
Current Annual Contribution:	\$98,540	Expenditure Inflation Rate:	3.2%
Minimum Reserve Fund Balance:	\$20,000	Minimum Balance Inflation Rate:	3.2%
First Critical Year:	2041	Number of Units:	48
Second Critical Year:	2048	Fiscal Year End:	Apr 30

Year	Opening Balance	Recommended Annual Contribution	Other Contribution	Estimated Expenditure (Inflation-Adjusted)	Estimated Interest Earned	Closing Balance	Year-Over-Year Increase to Annual Contributions		
							Amount	Percent (%)	Per Unit Per Month *
2023	\$382,458	\$98,540	\$0	\$194,939	\$6,685	\$292,744	--	--	--
2024	\$292,744	\$145,361	\$0	\$330,310	\$5,007	\$112,802	\$46,821	47.51%	\$81.29
2025	\$112,802	\$150,013	\$0	\$117,494	\$3,485	\$148,805	\$4,652	3.20%	\$8.08
2026	\$148,805	\$154,813	\$0	\$90,293	\$5,432	\$218,757	\$4,800	3.20%	\$8.33
2027	\$218,757	\$159,767	\$0	\$72,034	\$9,192	\$315,682	\$4,954	3.20%	\$8.60
2028	\$315,682	\$164,880	\$0	\$40,970	\$15,105	\$454,697	\$5,113	3.20%	\$8.88
2029	\$454,697	\$170,156	\$0	\$47,536	\$20,640	\$597,957	\$5,276	3.20%	\$9.16
2030	\$597,957	\$175,601	\$0	\$43,634	\$26,558	\$756,481	\$5,445	3.20%	\$9.45
2031	\$756,481	\$181,220	\$0	\$45,031	\$32,983	\$925,653	\$5,619	3.20%	\$9.76
2032	\$925,653	\$187,019	\$0	\$469,416	\$31,378	\$674,634	\$5,799	3.20%	\$10.07
2033	\$674,634	\$193,003	\$0	\$79,742	\$29,251	\$817,146	\$5,985	3.20%	\$10.39
2034	\$817,146	\$199,180	\$0	\$76,914	\$35,131	\$974,543	\$6,176	3.20%	\$10.72
2035	\$974,543	\$205,553	\$0	\$339,740	\$36,298	\$876,654	\$6,374	3.20%	\$11.07
2036	\$876,654	\$212,131	\$0	\$369,991	\$31,909	\$750,703	\$6,578	3.20%	\$11.42
2037	\$750,703	\$218,919	\$0	\$295,637	\$28,494	\$702,479	\$6,788	3.20%	\$11.79
2038	\$702,479	\$225,925	\$0	\$313,253	\$26,353	\$641,503	\$7,005	3.20%	\$12.16
2039	\$641,503	\$233,154	\$0	\$314,860	\$24,026	\$583,824	\$7,230	3.20%	\$12.55
2040	\$583,824	\$240,615	\$0	\$333,137	\$21,503	\$512,804	\$7,461	3.20%	\$12.95
2041	\$512,804	\$248,315	\$0	\$736,601	\$10,746	\$35,265	\$7,700	3.20%	\$13.37
2042	\$35,265	\$210,544	\$0	\$161,855	\$2,384	\$86,338	-\$37,771	-15.21%	-\$65.58
2043	\$86,338	\$217,281	\$0	\$167,034	\$4,458	\$141,043	\$6,737	3.20%	\$11.70
2044	\$141,043	\$224,234	\$0	\$292,618	\$4,274	\$76,933	\$6,953	3.20%	\$12.07
2045	\$76,933	\$231,409	\$0	\$202,790	\$3,650	\$109,202	\$7,175	3.20%	\$12.46
2046	\$109,202	\$238,815	\$0	\$141,352	\$6,317	\$212,982	\$7,405	3.20%	\$12.86
2047	\$212,982	\$246,457	\$0	\$155,138	\$10,346	\$314,646	\$7,642	3.20%	\$13.27
2048	\$314,646	\$254,343	\$0	\$532,065	\$7,031	\$43,956	\$7,887	3.20%	\$13.69
2049	\$43,956	\$233,260	\$0	\$102,307	\$4,377	\$179,286	-\$21,083	-8.29%	-\$36.60
2050	\$179,286	\$240,725	\$0	\$117,442	\$9,637	\$312,206	\$7,464	3.20%	\$12.96
2051	\$312,206	\$248,428	\$0	\$72,469	\$16,007	\$504,172	\$7,703	3.20%	\$13.37
2052	\$504,172	\$256,377	\$0	\$74,789	\$23,799	\$709,559	\$7,950	3.20%	\$13.80
2053	\$709,559	\$264,581	\$0	\$88,373	\$31,907	\$917,674	\$8,204	3.20%	\$14.24
2054	\$917,674	\$273,048	\$0	\$131,135	\$39,545	\$1,099,132	\$8,467	3.20%	\$14.70
2055	\$1,099,132	\$281,786	\$0	\$131,520	\$46,971	\$1,296,369	\$8,738	3.20%	\$15.17
2056	\$1,296,369	\$290,803	\$0	\$220,567	\$53,259	\$1,419,864	\$9,017	3.20%	\$15.65

Year	Opening Balance	Recommended Annual Contribution	Other Contribution	Estimated Expenditure (Inflation-Adjusted)	Estimated Interest Earned	Closing Balance	Year-Over-Year Increase to Annual Contributions		
							Amount	Percent (%)	Per Unit Per Month *
2057	\$1,419,864	\$300,108	\$0	\$1,002,261	\$42,752	\$760,463	\$9,306	3.20%	\$16.16
2058	\$760,463	\$309,712	\$0	\$90,347	\$34,806	\$1,014,634	\$9,603	3.20%	\$16.67
2059	\$1,014,634	\$319,623	\$0	\$262,153	\$41,735	\$1,113,838	\$9,911	3.20%	\$17.21
2060	\$1,113,838	\$329,851	\$0	\$129,068	\$48,569	\$1,363,190	\$10,228	3.20%	\$17.76
2061	\$1,363,190	\$340,406	\$0	\$99,300	\$59,350	\$1,663,645	\$10,555	3.20%	\$18.33
2062	\$1,663,645	\$351,299	\$0	\$321,261	\$67,147	\$1,760,830	\$10,893	3.20%	\$18.91
2063	\$1,760,830	\$362,540	\$0	\$395,387	\$69,776	\$1,797,759	\$11,242	3.20%	\$19.52
2064	\$1,797,759	\$374,142	\$0	\$530,909	\$68,775	\$1,709,767	\$11,601	3.20%	\$20.14
2065	\$1,709,767	\$386,114	\$0	\$904,655	\$58,020	\$1,249,246	\$11,973	3.20%	\$20.79
2066	\$1,249,246	\$398,470	\$0	\$1,151,736	\$34,905	\$530,884	\$12,356	3.20%	\$21.45
2067	\$530,884	\$411,221	\$0	\$874,111	\$11,978	\$79,972	\$12,751	3.20%	\$22.14

* Per unit per month increases are shown for a unit of average size. Actual increases will vary.



Scenario 2 - Phased-in Contribution Increase

Description:

This scenario shows the required increase phased-in over several years. While this approach generally results in higher total contributions over the study term, in our opinion it also meets the requirements of the Condominium Act to provide adequate funding. This scenario shows the one-time increase required so that future annual increases keep pace with inflation. This funding model is calculated using a 2% interest rate for fiscal year 2023, 2.5% for year 2024, 2.7% for the year 2025, 3% for the year 2026, 3.5% for the year 2027 and 4.0% thereafter.

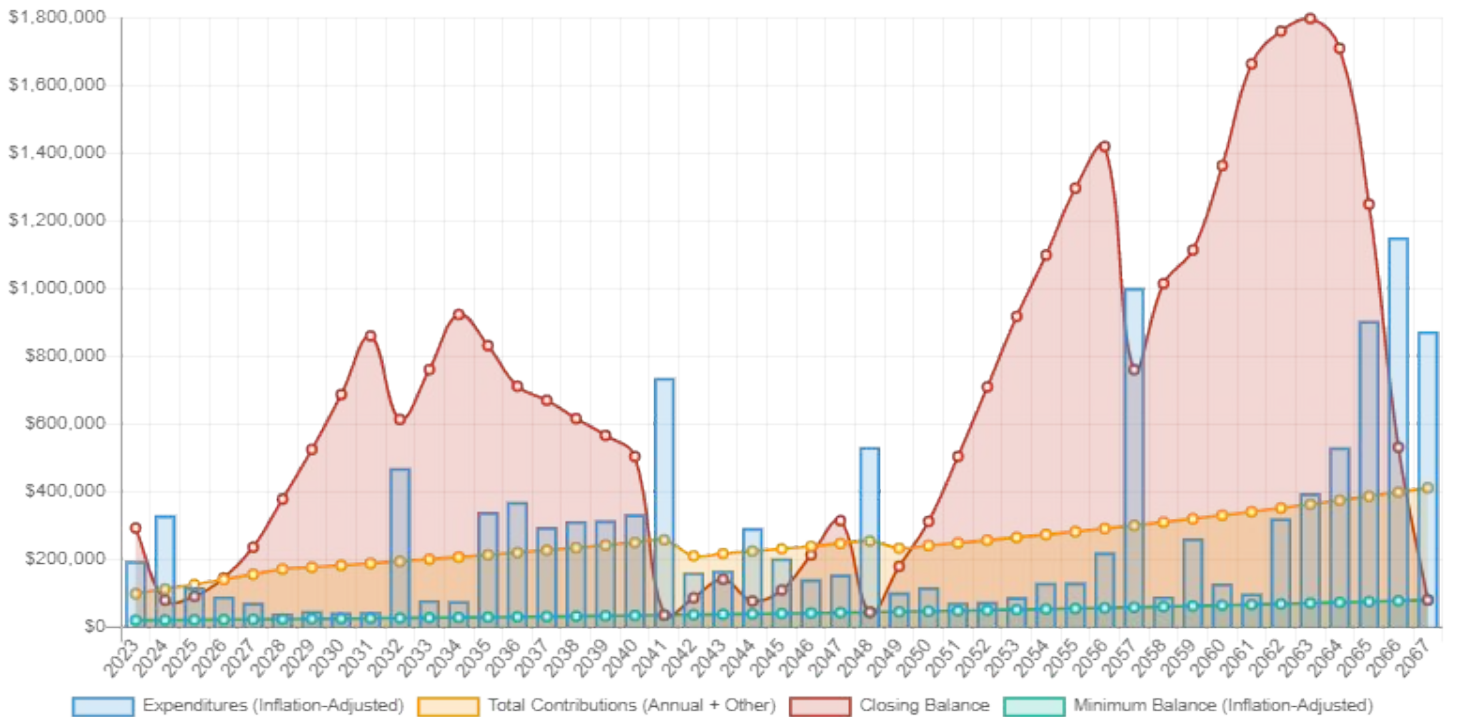
Assumptions:

Opening Balance of the Reserve Fund:	\$382,458	Interest Rate Earned:	4.0%
Current Annual Contribution:	\$98,540	Expenditure Inflation Rate:	3.2%
Minimum Reserve Fund Balance:	\$20,000	Minimum Balance Inflation Rate:	3.2%
First Critical Year:	2041	Number of Units:	48
Second Critical Year:	2048	Fiscal Year End:	Apr 30

Year	Opening Balance	Recommended Annual Contribution	Other Contribution	Estimated Expenditure (Inflation-Adjusted)	Estimated Interest Earned	Closing Balance	Year-Over-Year Increase to Annual Contributions		
							Amount	Percent (%)	Per Unit Per Month *
2023	\$382,458	\$98,540	\$0	\$194,939	\$6,685	\$292,744	--	--	--
2024	\$292,744	\$112,128	\$0	\$330,310	\$4,959	\$79,521	\$13,588	13.79%	\$23.59
2025	\$79,521	\$126,152	\$0	\$117,494	\$2,516	\$90,695	\$14,023	12.51%	\$24.35
2026	\$90,695	\$140,624	\$0	\$90,293	\$4,055	\$145,080	\$14,472	11.47%	\$25.13
2027	\$145,080	\$155,559	\$0	\$72,034	\$7,474	\$236,079	\$14,935	10.62%	\$25.93
2028	\$236,079	\$170,972	\$0	\$40,970	\$12,043	\$378,124	\$15,413	9.91%	\$26.76
2029	\$378,124	\$176,443	\$0	\$47,536	\$17,703	\$524,735	\$5,471	3.20%	\$9.50
2030	\$524,735	\$182,089	\$0	\$43,634	\$23,758	\$686,949	\$5,646	3.20%	\$9.80
2031	\$686,949	\$187,916	\$0	\$45,031	\$30,336	\$860,169	\$5,827	3.20%	\$10.12
2032	\$860,169	\$193,930	\$0	\$469,416	\$28,897	\$613,580	\$6,013	3.20%	\$10.44
2033	\$613,580	\$200,135	\$0	\$79,742	\$26,951	\$760,924	\$6,206	3.20%	\$10.77
2034	\$760,924	\$206,540	\$0	\$76,914	\$33,029	\$923,579	\$6,404	3.20%	\$11.12
2035	\$923,579	\$213,149	\$0	\$339,740	\$34,411	\$831,399	\$6,609	3.20%	\$11.47
2036	\$831,399	\$219,970	\$0	\$369,991	\$30,256	\$711,634	\$6,821	3.20%	\$11.84
2037	\$711,634	\$227,009	\$0	\$295,637	\$27,093	\$670,098	\$7,039	3.20%	\$12.22
2038	\$670,098	\$234,273	\$0	\$313,253	\$25,224	\$616,342	\$7,264	3.20%	\$12.61
2039	\$616,342	\$241,770	\$0	\$314,860	\$23,192	\$566,444	\$7,497	3.20%	\$13.02
2040	\$566,444	\$249,506	\$0	\$333,137	\$20,985	\$503,798	\$7,737	3.20%	\$13.43
2041	\$503,798	\$257,490	\$0	\$736,601	\$10,570	\$35,257	\$7,984	3.20%	\$13.86
2042	\$35,257	\$210,545	\$0	\$161,855	\$2,384	\$86,331	-\$46,946	-18.23%	-\$81.50
2043	\$86,331	\$217,282	\$0	\$167,034	\$4,458	\$141,038	\$6,737	3.20%	\$11.70
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* Per unit per month increases are shown for a unit of average size. Actual increases will vary.



Funding Scenario Definitions and Concepts

Opening Balance - The amount in the reserve fund at the beginning of the current fiscal year, as taken from the previous year and audited financial statements (when these are made available to us).

Current Annual Contribution – This is the annual contribution to the reserve fund that was budgeted for the current fiscal year, as provided to us or based on the existing Notice of Future Funding.

Minimum Reserve Fund Balance - The present value of the lowest allowable Reserve Fund balance, as set by the Board. The minimum balance could be set at zero. However, we generally recommend a higher amount as a factor of safety against estimates that prove to be inaccurate, unexpected repair items becoming necessary in the future and changes legislated by Building Authorities.

Minimum Balance Inflation Rate - The percentage rate at which the minimum Reserve Fund balance is increased. This ensures the minimum Reserve Fund balance at the critical years is not devalued as a result of inflation. This is usually the same as the inflation rate, unless there is a desire to accelerate the minimum balance at a rate greater than inflation.

First Critical Year - The year of the first occurrence where the fund balance reaches the minimum reserve fund balance you specify (inflated from year to year). Expenditures up to the first critical year are used to calculate the Reserve Fund contribution. Deferring work beyond the first critical year can reduce contribution requirements by providing further time to accrue the required funds for that work. This reduction can be significant if the first critical year occurs soon (within about 10 years).

Second Critical Year – The year of the second occurrence where the fund balance reaches the minimum reserve fund balance you specify (inflated from year to year).

Year – The year presented in this column is the year that the fiscal year ends in. As your fiscal year end is April 30th, “2023” would mean your fiscal year from May 1, 2022 to April 30, 2023.

Interest Rate Earned - The estimated annual interest rate earned on savings, assuming these monies are re-invested into the Reserve Fund. This should not necessarily be the current interest rate, but should reflect expected average long-term trends.

Expenditure Inflation Rate - The estimated annual inflation rate used to increase the estimated costs of repairs and replacements. As interest earned on money has historically been greater than inflation, the spread between interest and inflation act to decrease the level of contribution to the Reserve Fund (assuming interest monies are re-invested into the Reserve Fund). It is not the assumed interest rate but the spread between interest and inflation that most affects Reserve Fund planning.

Our analysis assumes that interest earned on the reserve balance is available in the year earned. In some instances, with longer term investments, the interest does not actually come available until maturity. Managing Reserve Fund investments and expenditures is required to assure positive cash flow in critical years, when the balance is at its lowest.

Physical Analysis

The following sections describe the common element and shared components included in this study, and our estimate of the costs and timing for future major repairs and replacements, presented as individual projects.

We have used a threshold of \$2,500 to decide which items have a dedicated line item in the study, and have included a general reserve fund contingency to cover the items which would fall in the \$500 to \$2,500 range. The amount of this contingency is checked against actual spending patterns in the prior three years at each update. Items which cannot be reasonably predicted or accounted for by the Reserve Fund Study because they may occur on a random or infrequent basis can be funded from either the operating budget or the contingency.

The following concepts and definitions are used in the repair and replacement projects:

Costs

Present Costs shown represent our opinion regarding the current dollar value for the work described. They are based on our assumptions regarding the likely scope of the work, and the materials or equipment that will be required. We base our opinion on comparing the assumed scope with actual costs of similar work at other buildings, using published construction cost databases, and/or by discussions with local contractors. Replacement costs are often much different than new construction costs as a result of removal/disposal, difficulties with access and the requirement to work around finishes. Costs include taxes and where appropriate, contingencies, and allowances for design, inspection and testing that may be required to execute the work.

Project Occurrences and Cycles

We estimate two factors when considering the timing of future repairs or replacements:

- First occurrence is our estimate of when the work will be required next. This estimate is based on the apparent condition of the item and may not simply be the time remaining in the standard estimated life cycle.
- Cycle (or life expectancy) is the frequency at which the repair or replacement is normally expected to be required. The time cycle following a repair or replacement may be different from the original service life as a result of changes in the materials or equipment employed, and changes in technology.

The life expectancies applied to the projects are typically based on our observations of the performance of similar materials systems or components at other buildings, literature we have read, and/or recommendations made to us by manufacturers or suppliers.

We endeavour to estimate the timing of repairs to reflect the necessity of maintaining the building standards and achieving this at the lowest cost. Some items that are not critical to the building operation (such as finishes, site work) may be deferred from our recommended time; however, this may result in a decrease in building standards. For some items, particularly those such as leakage, there may be an increase in the extent of repairs and costs if the required work is deferred.

For some building materials and systems, the actual service life is difficult to estimate as a result of a short history of application or use in other similar buildings. This can be particularly true of mechanical and electrical systems. While the actual service life may exceed the estimated service lives for these components, it is recommended that the funds be available for the repairs or replacements at the times indicated.

Limits to Accuracy

Given the level of review completed for a reserve fund study and the uncertainties associated with predicting the future, we can in no way guarantee the precision of the cost data or timing. While we apply our experience and expertise to our estimates, the exercise is not intended to be exact, but rather to reduce the risk of long term under-funding or over-funding. We cannot be responsible for under-funding or over-funding identified in future reserve fund studies.

Annual Projected Expenditures																		
Item	Description	Class	Status	Pres. Cost	First Occ.	Cycle	No. Occ.	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
1	Structure																	
1.1.1	Allowance to Replace Garage Slabs	3	Forecasted	\$14,000	2025	1	2	\$0	\$0	\$15,000	\$15,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1.1.2	Foundation & Wall Repairs at 2222 Marine Drive	3	Forecasted	\$16,000	2025		1	\$0	\$0	\$17,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	Building Envelope																	
2.1.1	Repair Masonry Walls Allowance	3	Forecasted	\$20,000	2024	10		\$0	\$21,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.1.2	Replace Vinyl Cladding	3	Forecasted	\$220,000	2035	30		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.1.3	Exterior Sealant Replacement	3	Forecasted	\$95,000	2024	20		\$0	\$25,000	\$25,000	\$26,000	\$27,000	\$0	\$0	\$0	\$0	\$0	\$0
2.2.1	Replace Double Glazing	3	Forecasted	\$10,000	2028	1	8	\$0	\$0	\$0	\$0	\$0	\$12,000	\$13,000	\$13,000	\$13,000	\$14,000	\$14,000
2.2.2	Replace Windows (Phased)	3	Forecasted	\$670,000	2035	30		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.2.3	Replace Double Glazing (Future)	3	Forecasted	\$5,000	2040	1	30	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.3.1	Replace Front Entrance Doors	3	Forecasted	\$115,000	2041	30		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.3.2	Replace Patio Doors	3	Forecasted	\$195,000	2041	35		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.3.3	Replace Overhead Doors	3	Forecasted	\$80,000	2041	25		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.4.1	Replace Sloped Roofing	3	Forecasted	\$320,000	2032	25		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$420,000	\$0
2.4.2	Repair Eavestroughs and Downspouts	3	Forecasted	\$50,000	2024	35		\$0	\$55,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.4.3	Replace Soffit/Fascia	3	Forecasted	\$105,000	2035	30		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.4.4	Attic Remediation	3	Forecasted	\$95,000	2024		1	\$0	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.4.5	Attic Insulation Repairs	3	Forecasted	\$48,000	2024		1	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	Site																	
3.1.1	Replace Fencing (Divider and Rear Fencing)	3	Forecasted	\$180,000	2042	20		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3.1.2	Replace Wood Decks at Units 3 & 5	3	Forecasted	\$15,000	2045	25		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3.1.3	Replace Retaining Wall	3	Forecasted	\$15,000	2024	20		\$0	\$15,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3.1.4	Landscaping Allowance	3	Forecasted	\$20,000	2024	1		\$0	\$21,000	\$22,000	\$22,000	\$23,000	\$24,000	\$25,000	\$25,000	\$26,000	\$27,000	\$28,000
3.1.5	Replace Front Step	3	Forecasted	\$5,000	2024		1	\$0	\$5,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3.2.1	Main Roads and Parking Areas - Asphalt Replacement (Actual Cost)	3	Forecasted	\$175,000	2023			\$175,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3.2.2	Asphalt Driveway Replacement (2023)	3	Forecasted	\$15,000	2024		1	\$0	\$16,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3.2.3	Main Roads and Parking Areas - Full Asphalt Replacement (Future)	3	Forecasted	\$175,000	2048	25		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3.2.4	Replace Asphalt Driveways (Remaining)	3	Forecasted	\$65,000	2024		1	\$0	\$16,000	\$17,000	\$17,000	\$18,000	\$0	\$0	\$0	\$0	\$0	\$0
3.2.5	Replace Asphalt Driveways (Future)	3	Forecasted	\$95,000	2045	25		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3.2.6	Repair Localized Asphalt and Damaged Concrete Curbs	3	Forecasted	\$11,000	2035	25		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3.2.7	Repair Concrete Sidewalk Allowance	3	Forecasted	\$24,000	2033	15		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$32,000
3.3.1	Site Services - Repair Allowance	3	Forecasted	\$18,000	2025	10		\$0	\$0	\$20,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3.3.2	Water and Sewer Line Investigation Allowance (New)	3	Forecasted	\$10,000	2024		1	\$0	\$11,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	Electrical																	

Item	Description	Class	Status	Pres. Cost	First Occ.	Cycle	No. Occ.	2067
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1	Structure							
1.1.1	Allowance to Replace Garage Slabs	3	Forecasted	\$14,000	2025	1	2	\$0
1.1.2	Foundation & Wall Repairs at 2222 Marine Drive	3	Forecasted	\$16,000	2025		1	\$0
2	Building Envelope							
2.1.1	Repair Masonry Walls Allowance	3	Forecasted	\$20,000	2024	10		\$0
2.1.2	Replace Vinyl Cladding	3	Forecasted	\$220,000	2035	30		\$150,000
2.1.3	Exterior Sealant Replacement	3	Forecasted	\$95,000	2024	20		\$95,000
2.2.1	Replace Double Glazing	3	Forecasted	\$10,000	2028	1	8	\$0
2.2.2	Replace Windows (Phased)	3	Forecasted	\$670,000	2035	30		\$450,000
2.2.3	Replace Double Glazing (Future)	3	Forecasted	\$5,000	2040	1	30	\$20,000
2.3.1	Replace Front Entrance Doors	3	Forecasted	\$115,000	2041	30		\$0
2.3.2	Replace Patio Doors	3	Forecasted	\$195,000	2041	35		\$0
2.3.3	Replace Overhead Doors	3	Forecasted	\$80,000	2041	25		\$0
2.4.1	Replace Sloped Roofing	3	Forecasted	\$320,000	2032	25		\$0
2.4.2	Repair Eavestroughs and Downspouts	3	Forecasted	\$50,000	2024	35		\$0
2.4.3	Replace Soffit/Fascia	3	Forecasted	\$105,000	2035	30		\$70,000
2.4.4	Attic Remediation	3	Forecasted	\$95,000	2024		1	\$0
2.4.5	Attic Insulation Repairs	3	Forecasted	\$48,000	2024		1	\$0
3	Site							
3.1.1	Replace Fencing (Divider and Rear Fencing)	3	Forecasted	\$180,000	2042	20		\$0
3.1.2	Replace Wood Decks at Units 3 & 5	3	Forecasted	\$15,000	2045	25		\$0
3.1.3	Replace Retaining Wall	3	Forecasted	\$15,000	2024	20		\$0
3.1.4	Landscaping Allowance	3	Forecasted	\$20,000	2024	1		\$80,000
3.1.5	Replace Front Step	3	Forecasted	\$5,000	2024		1	\$0
3.2.1	Main Roads and Parking Areas - Asphalt Replacement (Actual Cost)	3	Forecasted	\$175,000	2023			\$0
3.2.2	Asphalt Driveway Replacement (2023)	3	Forecasted	\$15,000	2024		1	\$0
3.2.3	Main Roads and Parking Areas - Full Asphalt Replacement (Future)	3	Forecasted	\$175,000	2048	25		\$0
3.2.4	Replace Asphalt Driveways (Remaining)	3	Forecasted	\$65,000	2024		1	\$0
3.2.5	Replace Asphalt Driveways (Future)	3	Forecasted	\$95,000	2045	25		\$0
3.2.6	Repair Localized Asphalt and Damaged Concrete Curbs	3	Forecasted	\$11,000	2035	25		\$0
3.2.7	Repair Concrete Sidewalk Allowance	3	Forecasted	\$24,000	2033	15		\$0
3.3.1	Site Services - Repair Allowance	3	Forecasted	\$18,000	2025	10		\$0
3.3.2	Water and Sewer Line Investigation Allowance (New)	3	Forecasted	\$10,000	2024		1	\$0
4	Electrical							
4.1.1	Replace Unit Light Fixtures (Front)	3	Forecasted	\$33,000	2036	20		\$0
4.1.2	Replace Street Lighting Fixtures	3	Forecasted	\$11,000	2036	20		\$0
4.1.3	Replace Street Lighting Poles	3	Forecasted	\$13,000	2036	40		\$0
5	Miscellaneous							
	Contingency for							

Item	Description	Class	Status	Pres. Cost	First Occ.	Cycle	No. Occ.	2067
5.1.1	Small/Unexpected Repairs/Replace	3	Forecasted	\$5,000	2024	1		\$20,000
5.1.2	2023 Miscellaneous Expenses	3	Forecasted	\$20,000	2023		1	\$0
5.2.1	Reserve Fund Study without Site Visit	3	Forecasted	\$4,500	2023	6		\$0
5.2.2	Reserve Fund Study with Site Visit	3	Forecasted	\$5,500	2026	6		\$0
Total								\$885,000
\$ / ft ²								\$0.00

1. Structure

1.1 Structural Frame

Description:

The structures are wood frame construction on poured concrete foundations.

History of Repairs:

2014: Garage floor replaced at 17 East at a cost of \$5,085 as per financial statements

2009 and 2011: 2 Garage floors were replaced at a cost of about \$3,500 each.

1.1.1 Allowance to Replace Garage Slabs

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$14,000	\$15,000	2025	1	2	3	Forecasted

Project Notes:

This project includes to replace two garage floor slabs throughout the development, if required, over the next two years. This project is carried over from our previous Study as directed by the Corporation and the associated allowance is based on historical costs (inflated to current year pricing). We assume repair of localized foundation wall leaks and spalled parging at foundations will be repaired out of the operating budget.

1.1.2 Foundation & Wall Repairs at 2222 Marine Drive

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$16,000	\$17,000	2025	N/A	One time	3	Forecasted

Project Notes:

This is a preliminary budget to implement repairs to control movement of the foundation and the masonry cladding at the northeast corner of 2222 Marine Drive as per the Corporation's direction. This budget should be updated once the scope of work is developed and contractor quotes are obtained.

2. Building Envelope

2.1 Walls

Description:

Vinyl Siding: Units are clad with vinyl siding on most second and third floor elevations, except block end walls.
 Masonry Cladding: Walls are clad with architectural concrete brick masonry at grade level and on block end walls.
 Soffits and Fascia: Prefinished aluminum. The soffit is intermittently vented.
 Exterior Building Sealants: Window, door and vinyl cladding perimeters are generally caulked with urethane sealant.
 Garage Doors: Garage door frames are painted wood. Garage trim has been capped and caulked.

It is assumed painted wood finishes will be addressed as required from operating and maintenance budgets.

History of Repairs:

2022: Exterior wall repairs, cost of \$4,366 as per audited financial statements.
 2020 Caulking Repairs, cost of \$10,966, as per audited financial statements.
 2018: All window/door perimeter caulking replaced for \$29,945 as per financial statements.
 2018: Patio door replacement/repairs for \$6,101 as per financial statements.
 2002-2005: All wood soffits and fascia over-clad with new prefinished aluminum; cost not reported
 2001-2004: Original wood siding was replaced with new vinyl siding; cost not reported

2.1.1 Repair Masonry Walls Allowance

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$20,000	\$21,000	2024	10	Recurring	3	Forecasted

Project Notes:

This item allows for periodic repairs to the masonry walls. The budget includes for some repointing and some brick masonry replacement.

2.1.2 Replace Vinyl Cladding

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$220,000	\$330,000	2035	30	Recurring	3	Forecasted

Project Phased

2035	2036	2037	2038	2039	2040
16.67%	16.67%	16.67%	16.67%	16.67%	16.65%
\$55,000	\$60,000	\$60,000	\$60,000	\$65,000	\$65,000

Project Notes:

This item allows for periodic replacement of the vinyl cladding. This project is timed to occur simultaneous to the window replacement and soffit/facia replacement projects.

2.1.3 Exterior Sealant Replacement

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$95,000	\$100,000	2024	20	Recurring	3	Forecasted

Project Phased

2024	2025	2026	2027
25%	25%	25%	25%
\$25,000	\$25,000	\$26,000	\$27,000

Project Notes:

This item allows for replacement of the exterior sealants. Due to increase in frequency of repairs as seen in previous years financials this project has been adjusted to be more frequent and phased over a 4 year period for repairs.

2.2 Windows

Description:

Windows were manufactured by Arcor Regal with extruded PVC frames with casement sashes and drained tracks. Glass is sealed double glazing with low E coating, argon gas fill with warm edge spacers.

History of Repairs:

- 2022: Window Repairs, cost of \$14,763, as per audited financial statements.
- 2021: Window repairs, cost of \$10,530 as per audited financial statements.
- 2019: Window repair/replacement at a cost of \$8,063 as per financial records
- 2017: Window repair/replacement at a cost of \$2,851 as per financial records
- 2016: Window repair/replacement at a cost of \$3,778.22 as per financial records
- 2015: Window repair/replacement at a cost of \$2,585 as per financial records
- 2014: Window repair/replacement at a cost of \$9,991 as per financial records
- 2013: Window repair/replacement at a cost of \$2,782 as per financial records
- 2012: Local IGU replacement at a cost of about \$2,800 per financial records
- 1999-2001: Windows replaced.

2.2.1 Replace Double Glazing

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$10,000	\$12,000	2028	1	8	3	Forecasted

Project Notes:

This item allows for Insulated glazing unit (“IGU”) replacement which is expected to be completed 2023 as per the submitted questionnaire. Property Management has advised repairs will continue in order to maintain windows until the next major replacement project. This project allows for periodic glazing replacement until the next major repair project.

2.2.2 Replace Windows (Phased)

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$670,000	\$980,000	2035	30	Recurring	3	Forecasted

Project Phased

2035	2036	2037	2038	2039	2040
16.67%	16.67%	16.67%	16.67%	16.67%	16.65%
\$165,000	\$170,000	\$175,000	\$180,000	\$185,000	\$195,000

Project Notes:

We understand the board is considering replacement of the windows due to increasing annual repair costs associated with IGU failures and breakage.

This project includes to replace the windows throughout the development, phased over 6 years.

Irregular bay windows, rear rectangle windows, and rear half moon windows are not accounted for as they are not commonly owned as stated by board members (during previous studies).

This project is timed to occur simultaneous to the vinyl siding replacement and soffit/facia replacement projects.

2.2.3 Replace Double Glazing (Future)

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$5,000	\$9,000	2040	1	30	3	Forecasted

Project Notes:

This item allows for Insulated glazing unit ("IGU") replacement as the building ages. The corporation has begun to gradually replace window glazing at an average of 20 units per year. This replacement strategy can prolong the life of the windows until the next required replacement. This project is in anticipation that a similar renewal strategy will be implement after the next major repair program.

2.3 Exterior Doors

Description:

Front Entry Doors: Front entry doors are insulated pre-finished metal with double-glazed fixed vision units.

Patio Doors: Each unit has two sliding doors (rear of each unit on 1st and 2nd floors). The sliding doors are PVC framed with sealed glazing units. They are a combination of sliding operable units and fixed units.

Overhead Garage Doors: Each unit has a single-car overhead garage door. The doors are sectional insulated pre-finished metal.

History of Repairs:

2020: Door Repairs, cost of \$1,260 as per audited financial statements.

2015: Aluminum capping and trim for \$17,967 as per financial statements.

2008-2009: Garage doors replaced and garage door trim repainted. Financial statements indicate overall project expense of approximately \$44,000.

2003-2005: Front entry doors replaced. Financial statements indicate overall project expense of approximately \$46,000.

2002-2006: Patio doors replaced. Financial statements indicate expense of approximately \$110,000.

2.3.1 Replace Front Entrance Doors

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$115,000	\$205,000	2041	30	Recurring	3	Forecasted

Project Notes:

This item allows for full replacement of the main entrance doors to each unit.

2.3.2 Replace Patio Doors

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$195,000	\$340,000	2041	35	Recurring	3	Forecasted

Project Notes:

This item budgets to replace the sliding glass patio doors (2 per unit).

2.3.3 Replace Overhead Doors

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$80,000	\$140,000	2041	25	Recurring	3	Forecasted

Project Notes:

This project budget is for replacement of the overhead garage doors (1 per unit).

2.4 Sloped Roofing

Description:

The roofs are sloped (gable style) with architectural profile shingles. There are "shed" roofs over the garages and approximately half of front entrance doorways.

The buildings have 5" seamless, pre-finished aluminum eavestroughs and downspouts.

Soffits and Fascia: Prefinished aluminum clad over the original wood. The soffit is intermittently vented.

History of Repairs:

2014: Eavestroughs repairs and gutter guard installation at about \$32,798 as per financial records

2012/13: Eavestroughs repairs at about \$4,390 as per financial records

2007: Shingles and rooftop vents replaced at a total cost of about \$109,000 as reported by Management.

2002-2005: All eavestroughs and downpipes replaced.

2.4.1 Replace Sloped Roofing

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$320,000	\$420,000	2032	25	Recurring	3	Forecasted

Project Notes:

This project allows for periodic replacement of the sloped roofing systems. The budget includes an allowance for localized replacement of the sheathing.

2.4.2 Repair Eavestroughs and Downspouts

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$50,000	\$55,000	2024	35	Recurring	3	Forecasted

Project Notes:

This item allows for periodic replacement of the eavestroughs and downspouts at all buildings. This item is included as per the Corporation anticipated repairs for this fiscal year.

2.4.3 Replace Soffit/Fascia

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$105,000	\$150,000	2035	30	Recurring	3	Forecasted

Project Phased

2035	2036	2037	2038	2039	2040
16.67%	16.67%	16.67%	16.67%	16.67%	16.65%
\$25,000	\$26,000	\$27,000	\$28,000	\$29,000	\$30,000

Project Notes:

This project allows for periodic replacement of the aluminum-clad soffits and fascia. This project is timed to occur simultaneous to the window replacement and vinyl siding replacement projects.

2.4.4 Attic Remediation

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$95,000	\$100,000	2024	N/A	One time	3	Forecasted

Project Notes:

Property Management has advised attic remediation will be required in 80% of the units during the current fiscal year to address current mold issues. The remaining 20% of units are not anticipated to require remediation.

2.4.5 Attic Insulation Repairs

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$48,000	\$50,000	2024	N/A	One time	3	Forecasted

Project Notes:

Property Management has advised an allowance for insulation repairs within the attic space will be required for the current fiscal year. This project allows for 10% of all units as directed by the Corporation.

3. Site

3.1 Site Features

Description:

The site includes soft landscaping which forms part of the common elements. There are numerous mature trees on this site.

Pressure Treated Wood Decks: Each unit has a wood-framed deck at the rear of the 2nd floor, which is unit-owned. According to the Board, only 2 commonly owned decks remain at Units 3 and 5.

Fencing:

- Pressure treated board-on-board privacy fencing encloses the back yard of each unit. The majority of the fencing is 1.6 meters high with 1" x 6" vertical boards and 4" x 4" posts set in concrete.
- During previous studies, management indicated that the chain link fence between the Corporation and 2220 Marine Dr. is owned by the adjacent property and is not the Corporation's responsibility.

Retaining Walls:

- Dry stack precast concrete retaining walls at both entrances to the site exist where there are significant grade changes or landscaping features exist. Several units also have similar walls.
- A Wood retaining wall on the south side of 17 East Street are constructed from 6" x 9" timbers secured with tie-back/deadman type anchors.
- Concrete retaining wall and fence along the east property line, which we assume to be the responsibility of the adjacent building.

It is assumed re-leveling of the precast retaining walls will be handled from the landscaping allowance as required.

Site Signs: There are granite slabs within landscaped areas at each driveway entrance to the interior road of the site with "Reflection Bay Private Property" etched into the stone.

History of Repairs:

- 2021: Fence repairs, cost of \$1,554 as per audited financial statements.
- 2021: Tree removals, cost of \$12,995, as per audited financial statements.
- 2021: Landscaping repairs, cost of \$7,413 as per audited financial statements.
- 2020: Deck Repairs, cost of \$12,053, as per audited financial statements.
- 2020: Replace 2 wood decks for \$10,320 as per financial statements.
- 2018: All fencing replaced for \$160,765 as per financial statements.
- 2018: Tree removal for \$2,865 as per financial statements
- 2017: Tree removal for \$13,430 as per financial statements.
- 2012: Landscaping renewals for \$5,900 as per financial statements.
- 2012: Sidewalk repairs for \$3,800 as per financial statements.
- 2011: Tree removal/replacement for \$5,800 as per financial statements.
- 2009: Landscaping renewals for \$6,400 as per financial statements.
- 1996: New mailboxes installed

3.1.1 Replace Fencing (Divider and Rear Fencing)

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$180,000	\$330,000	2042	20	Recurring	3	Forecasted

Project Phased

2018	2019	2020
33.33%	33.33%	33.34%
\$0	\$0	\$0

Project Notes:

This project allows for general replacement of site fencing with similarly configured fencing. This project includes hydro-excavation around footings close to buried site services as this was reportedly required during the recent replacements. Local repairs are assumed to be completed as-needed from operating or reserve contingency budgets. This project has been phased over a 3 year period.

3.1.2 Replace Wood Decks at Units 3 & 5

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$15,000	\$30,000	2045	25	Recurring	3	Forecasted

Project Notes:

This item allows for periodic replacement of the 2 commonly owned wood decks located at Units 3 and 5. Based on the previous Reserve Fund Study done in 2020 this replacement was completed in 2020.

3.1.3 Replace Retaining Wall

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$15,000	\$15,000	2024	20	Recurring	3	Forecasted

Project Notes:

This project allows to replace the timber retaining wall adjacent Unit 17 with a precast retaining wall, including new landscaping. This budget should be maintained for future periodic replacement of stone retaining walls. The corporation's budget for anticipated repair work for this item was set as \$10k, this has been cross referenced and adjusted based on previous Reserve Fund Studies.

3.1.4 Landscaping Allowance

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$20,000	\$21,000	2024	1	Recurring	3	Forecasted

Project Notes:

This budget allows for periodic landscaping repairs, including mature tree removal and major tree pruning. We have based this cost on the 2023 fiscal year budget provided by the Corporation. Maintenance-type repairs will be paid for using operating funds, or from the reserve contingency.

3.1.5 Replace Front Step

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$5,000	\$5,500	2024	N/A	One time	3	Forecasted

Project Notes:

This item allows for replacement of several front steps as per the Corporations planned expenditures for the current fiscal year. As per Property Management instruction, there are no further expected repairs to front steps in the near future.

3.2 Paving

Description:

Asphalt Paving at main drive aisles, visitor parking areas (about 16 stalls) and unit driveways.

Unit paved walkways lead from the driveway to the front entrance doors. There are various unit paver types and walkway configurations. We assume these walkways are unit owned, no allowances have been budgeted for their maintenance.

There are concrete curbs and gutters along both sides of the main drive aisle and around the perimeter of the parking lots. The curbs are depressed at unit drives.

Concrete sidewalks follow along one side of the main drive aisle. There is also a sidewalk in front of the units along Marine Drive and East Street which we assume to be the responsibility of the municipality.

History of Repairs:

2020: Replaced asphalt driveways at 6 units for \$10,966 as per financial statements. (unknown which units)

2014: Paving and line painting for \$35,086 as per financial statements.

1999: Asphalt at unit drives replaced.

3.2.1 Main Roads and Parking Areas - Asphalt Replacement (Actual Cost)

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$175,000	\$175,000	2023	N/A	One time	3	Forecasted

Project Notes:

This project reflects actual costs to replace the asphalt pavements in the current fiscal year.

3.2.2 Asphalt Driveway Replacement (2023)

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$15,000	\$16,000	2024	N/A	One time	3	Forecasted

Project Notes:

This project reflects anticipated expenditures by the Corporation for Asphalt driveway replacement during this fiscal year.

3.2.3 Main Roads and Parking Areas - Full Asphalt Replacement (Future)

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$175,000	\$390,000	2048	25	Recurring	3	Forecasted

Project Notes:

This budget allows to replace the asphalt, including removal of existing asphalt (assuming the majority of the granular base materials will be suitable for re-use), and includes 50% curb allowance and 20% base replacement allowances.

3.2.4 Replace Asphalt Driveways (Remaining)

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$65,000	\$65,000	2024	N/A	One time	3	Forecasted

Project Phased

2024	2025	2026	2027
25%	25%	25%	25%
\$16,000	\$17,000	\$17,000	\$18,000

Project Notes:

This project includes for the remaining replacement of asphalt driveways. This budget also allows to repair the granular base where tree roots are encountered. The previous reserve fund study allowed for a phased replacement approach of the unit driveways starting in 2020 and phased over 5 years. After discussion with property management the 2020 repairs were completed, this is a continuation for the remaining driveways and will be phased over 4 years.

3.2.5 Replace Asphalt Driveways (Future)

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$95,000	\$185,000	2045	25	Recurring	3	Forecasted

Project Phased

2045	2046	2047	2048	2049	2050
16.67%	16.67%	16.67%	16.67%	16.67%	16.65%
\$31,000	\$32,000	\$33,000	\$34,000	\$35,000	\$36,000

Project Notes:

This project includes for the future planned replacement of asphalt paving at unit driveways. This budget also allows to repair the granular base where tree roots are encountered.

3.2.6 Repair Localized Asphalt and Damaged Concrete Curbs

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$11,000	\$15,000	2035	25	Recurring	3	Forecasted

Project Notes:

This project allows to locally repair asphalt roadway/parking areas and replace damaged concrete curbs between replacement periods.

3.2.7 Repair Concrete Sidewalk Allowance

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$24,000	\$32,000	2033	15	Recurring	3	Forecasted

Project Notes:

This item is an allowance to partially replace concrete sidewalks on a periodic basis.

3.3 Site Services

Description:

Electrical: Hydro to individual units is fed through buried conduit. Major replacement of the underground electrical services is not anticipated within the time frame of this study. The meters and meter bases are maintained and replaced by the local utility company.

Domestic Water: Domestic water is supplied to each unit by a buried water main. There are shutoff valves located at grade in front of each unit. Units are individually metered.

Drainage: Both sanitary and storm drainage (likely concrete) lines are buried and review of their physical condition is outside the scope of this study.

History of Repairs:

2016: Catch basin repairs for \$7,006 as per financial statements

2015: Water main break repairs and replacement of watermain pipe for \$15,489 as per financial statements

2015: Vacuum basins for \$4,181.00 as per financial statements

2011-2012: Unit backflow preventers, water meters and curb stops were installed at a cost of about \$122,500.

2006: Financial Statements indicate approximately \$7,900 was spent to repair a water main.

3.3.1 Site Services - Repair Allowance

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$18,000	\$20,000	2025	10	Recurring	3	Forecasted

Project Notes:

Periodic repairs to the buried services will likely be required to address deterioration. This includes repairs to water supply, drainage, electrical and fuel supply systems, as well as periodic fire hydrant replacement/repair. The frequency and extent of repairs cannot be predicted, so a standard allowance is included. Periodic scoping and camera surveys (carried out as part of normal maintenance) can help to refine repair needs and timing.

3.3.2 Water and Sewer Line Investigation Allowance (New)

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$10,000	\$11,000	2024	N/A	One time	3	Forecasted

Project Notes:

This projects includes an allowance for the water main and sewer line investigation as requested by management. The exact scope of the investigation will be confirmed closer to the time of the evaluation.

4. Electrical

4.1 Lighting

Description:

Exterior Unit Lighting: Each unit has four exterior light fixtures: two in the front and two in the back. The lights at the front of the units are cast aluminum and have a black baked enamel finish. The back lights are either motion sensor lights or standard wall mounted lights.

Exterior Street Lighting: The poles are pre-finished metal and secured to concrete bases. The light fixtures incorporate LED Lamps.

History of Repairs:

2022: Electrical repairs, cost of \$1,639 as per audited financial statements.

2015: Light fixture repaired for \$2,700 as per financial statements.

2015: 2254 Marine security flood light for \$3,234 as per financial statements

1996: Street light fixtures and unit lights replaced.

4.1.1 Replace Unit Light Fixtures (Front)

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$33,000	\$49,000	2036	20	Recurring	3	Forecasted

Project Notes:

This item allows for periodic replacement of the exterior unit light fixtures.

4.1.2 Replace Street Lighting Fixtures

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$11,000	\$17,000	2036	20	Recurring	3	Forecasted

Project Notes:

This item allows for periodic replacement of the exterior street lighting fixtures.

Management reports that the fixtures were recently re-lamped with LED fixtures and the poles were assed to be in good condition; hence this project has been deferred relative to the last study.

4.1.3 Replace Street Lighting Poles

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$13,000	\$19,000	2036	40	Recurring	3	Forecasted

Project Notes:

This item allows for replacement of street light poles. Management reports that the poles were assed to be in good condition during recent projects to upgrade to LED Lamps; hence this project has been deferred relative to the last study.

5. Miscellaneous

5.1 Contingencies

5.1.1 Contingency for Small/Unexpected Repairs/Replace

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$5,000	\$5,500	2024	1	Recurring	3	Forecasted

Project Notes:

This budget is a contingency for unexpected repairs/replacements that should be paid for from Reserve (i.e., unexpected repairs/replacements that are not specifically itemized, but which would qualify to be covered by the fund). A preliminary annual budget is included and can be modified as needed in future years to reflect actual spending patterns.

5.1.2 2023 Miscellaneous Expenses

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$20,000	\$20,000	2023	N/A	One time	3	Forecasted

Project Notes:

This project reflects the aggregate of minor expenses from the year in progress not accounted for in the preceding projects. Expenses have included bank charges, bat exclusion treatments, water damage repairs, landscaping expenses, window repairs and other minor charges to the Reserve fund

5.2 Consulting Services

Description:

Reserve Fund Studies are defined and mandated by the Condominium Act and can be paid from the Reserve Fund.

5.2.1 Reserve Fund Study without Site Visit

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$4,500	\$4,500	2023	6	Recurring	3	Forecasted

Project Notes:

This item allows for Reserve Fund Study updates without a site visit. These alternate with the site visit-based updates.

5.2.2 Reserve Fund Study with Site Visit

Present Cost	Inflated Cost	First Occur.	Cycle	# Occurrences	Class	Status
\$5,500	\$6,000	2026	6	Recurring	3	Forecasted

Project Notes:

This item allows for the Reserve Fund Study updates with a site visit. These alternate with the non-site visit-based updates.

Scope Of Work

Authorization

This Class 3 Reserve Fund Study Update (not based on a site inspection) was commissioned by the Board of Directors of Halton Condominium Corporation No. 78 in accordance with our proposal dated November 25, 2022

Mandate

In preparing this updated study without a site review for the corporation, we:

- Reviewed the previous Reserve Fund Study to identify changes or additions that should be made to reflect improvements we have made in our planning approach;
- Incorporated changes that the Board of Directors wishes to see made. We provide a questionnaire for completion by the Board and/or Property Management at the start of our work, regarding current financial information, planned work and repairs or replacements that have occurred since the last study;
- Reviewed previous assumptions and update them where required to reflect current cost data or life cycle predictions; and
- Calculated a schedule of contributions to the Reserve Fund so that the estimated expenditures can be accommodated without a deficit.

We include items which typically require replacement because their service life is shorter than the service life of the building (such as caulking, roofing, equipment, etc.). We also include items which would not have been anticipated to be required when the building was new, but which have become necessary due to building specific deterioration (concrete repair related to poor durability, cladding repair, etc.). There may be expenses which arise which we have not anticipated, related to concealed conditions or unexpected deterioration. As long as these relate to the repair or replacement of the common elements, they can often be paid out of the Reserve Fund provided the study is updated to account for the impact of these expenditures.

If you are in doubt about whether or not an expenditure can be paid for out of the Reserve Fund, we recommend you check with your legal counsel or chartered accountant.

Survey Method

No site inspection was completed as part of this Study.

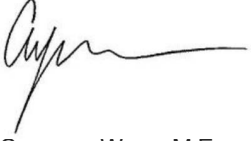
Information Provided

We have reviewed the following documents:

- Audited financial statements for the 2020, 2021, 2022 fiscal years of the Corporation, prepared by Gatto CPA Professional Corporation
- Recent Notice of Future Funding
- The Declaration and Description were reviewed during prior studies/updates

Steven Peros answered questions about the history of performance of the various systems, described existing capital plans, etc.

Respectfully submitted,
WSP Canada Inc.

A handwritten signature in black ink, appearing to read 'C. Wynn', with a long horizontal flourish extending to the right.

Cameron Wynn, M.Eng.
Project Manager

A handwritten signature in black ink, appearing to read 'E. Furtado', with a long horizontal flourish extending to the right.

Edgar Furtado, P.Eng.
Project Director

Limitations

WSP Canada Inc. is the "Consultant" referenced throughout this document.

- Our scope of work and responsibilities related to this report are defined by the documents that form the agreement and authorization for this work.
- Any user accepts that decisions made or actions taken based upon interpretation of our work are the responsibility of only the parties directly involved in the decisions or actions. We accept no responsibility for any decisions made or actions taken as a result of this report unless we are specifically advised of and participate in such action, in which case our responsibility will be as agreed to at that time.
- All files, notes, source data, test results and master files are retained in the offices of the Consultant and remain the property of the Consultant.
- No party other than the Client shall rely on the Consultant's work without the express written consent of the Consultant, and then only to the extent of the specific terms in that consent. Any use which a third party makes of this work, or any reliance on or decisions made based on it, are the responsibility of such third parties. Any third party user of this report specifically denies any right to any claims, whether in contract, tort and/or any other cause of action in law, against the Consultant (including Sub-Consultants, their officers, agents and employees).
- The work reflects the Consultant's best judgement in light of the information reviewed by them at the time of preparation. It is not a certification of compliance with past or present regulations. Unless otherwise agreed in writing by the Consultant, it shall not be used to express or imply warranty as to the fitness of the property for a particular purpose. No portion of this report may be used as a separate entity; it is written to be read in its entirety.
- This report is limited in scope to only those building components and information that are specifically identified in this report. No physical or destructive testing and no design calculations have been performed unless specifically recorded. Conditions existing but not recorded were not apparent given the level of study undertaken. Only conditions actually seen during examination of representative samples can be said to have been appraised and comments on the balance of the conditions are assumptions based upon extrapolation. Therefore, this work does not eliminate uncertainty regarding the potential for existing or future costs, hazards or losses in connection with a property. The Consultant accepts no liability for any costs incurred by the Client for subsequent discovery, manifestation or rectification of such deficiencies. We can perform further investigation on items of concern upon request.
- The Consultant is not responsible for, or obligated to identify, mistakes or insufficiencies in the information obtained from the various sources, or to verify the accuracy of the information.
- No statements by the Consultant are given as or shall be interpreted as opinions for legal, environmental or health findings. The Consultant is not investigating or providing advice about pollutants, contaminants or hazardous materials.
- The Client and other users of this report expressly deny any right to any claim against the Consultant, including claims arising from personal injury related to pollutants, contaminants or hazardous materials, including but not limited to asbestos, mould, mildew or other fungus.
- We assume qualified contractors and professional design and construction review will be applied to the execution of the recommendations made in this report. Professional review is needed during the repair work to check that the work meets the design intent and so that conditions different from the assumptions underpinning our recommendations are dealt with properly when encountered.
- Ongoing monitoring is needed to confirm that measures are successful and to check for changing conditions that would require increased levels of intervention or different management strategies.
- Failure to implement the recommendations and/or neglect/failure to maintain appropriately could lead to ongoing and accelerated deterioration that may lead to unsafe conditions developing.

Applicable codes and design standards may have undergone revision since the subject property was designed and constructed. As an example, design loads (such as those for temperature, snow, wind, rain, seismic, etc.) and the specific methods of calculating the capacity of the systems to resist these loads may have changed significantly. Unless specifically included in our scope, no calculations or evaluations have been completed to verify compliance with current building codes and design standards.

Any costs for repair in this report are the Consultant's opinions of probable construction costs and quantities, based on current year dollars. These estimates do not include any unforeseen conditions that require repair at the time the repair work is being completed. Any cost estimates provided are subject to confirmation or adjustment at the time competitive bids are obtained from contractors who specialize in the various items of repair work required. The Consultant makes no representation or warranty expressed or implied as to the reliability of these cost estimates.

Time frames given for undertaking work represent our opinion of when to budget for the work. Failure of the item, or the optimum repair/replacement process, may vary from our estimate.