

# REPLACEMENT RESERVE STUDY REPORT – FY 2024

## YOUR CONDOMINIUM

Address

City, ST 12345

September 30, 2023



Management by:

**YOUR CONDOMINIUM ASSOCIATION**

Representative: Name

Phone

email

Study Prepared by:



VAN VLIET architecture | design

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**PREFACE**

Maryland legislation House Bill 107 (2022) requires an initial Reserve Study to be completed and then updated every five years, and that the Governing Body shall provide funds to the reserve in accordance with the most recent reserve study. The Governing Body shall also review the reserve study annually for accuracy and shall inform unit owners of the reserve status with the annual budget.

A reserve study is a detailed report that assists a condominium association in planning for long-term expenses for future replacement of the condominium's common element components. These common element components, which are the responsibility of the condominium association to replace, may differ for every condominium but they usually will include driveways, parking lots, sidewalks, roofs, siding, windows, stairways, porches, balconies, and other capital expense items.

A reserve study inventories these various common element components and estimates the costs and timing of their replacements over a 30-year period. Each component is given a useful life, remaining life, and estimated future cost. A

reserve study then calculates the funds necessary to cover these expenses by creating a Funding Plan. The annual reserve contribution should ensure the amount of needed funds are available at the time the component is projected to be replaced. Over time each owner of a unit should contribute their fair share to the reserve account.

The Governing Body of a condominium has a legal and fiduciary duty to maintain the condominium in a state of good and safe condition, and to collect the funds necessary. Reserve Studies help board members fulfill their fiduciary duty and help avoid litigation against an association. The Maryland legislation regarding reserve studies gives the Governing Body the authority to increase an assessment levied to cover the reserve funding amount required.

## DESCRIPTION

Your Condominium is a Residential Condominium located in Address, City, ST 12345 (hereafter referred to as Property or Association). The Association consists of one 3-story garden-style building containing 6 units. The building is wood frame structures on wood pilings above open-air crawl spaces. The building was constructed circa 1972. The building is open for three seasons, with water service decommissioned for the winter season from November through March.

The building's front porches/stairway and rear fire escape were replaced in 2023. Approximately 17 compromised structural pilings were repaired in 2022, based on a structural conditions survey performed by an engineer.



The survey examined the following common element components of the property:

**Site Components:** driveway (shared), parking lot, sidewalks, and landscaping.

**Building Components:** roofing, soffit & trim, gutters & downspouts, siding & trim, skirting, unit entry doors, unit windows, front porches & stairway, rear fire escape, exterior painting, common building piping and electrical systems (as observable).

**Building Systems:** common building piping and electrical systems (as observable).

## EXECUTIVE SUMMARY

This Reserve Study has been prepared by VAN VLIET architecture | design (VVA) for the Your Condominium Association beginning in the Fiscal Year 2024 (January 1 to December 31).

- The Replacement Reserves Starting Balance as of January 1, 2024 is projected to be \$0.
- The reported Current Annual Funding for Reserves is \$0.
- The Cumulative Expenditures over 30 years is estimated to \$205,193.
- The Recommended Annual Reserve Funding level for 2024 is \$2,400 (\$400 per Unit).
- The Threshold funding alternative increases this initial 2024 amount by 10% per year.
- The Baseline funding alternative increases this initial amount by 5% per years 1-10 & 21-30, and 10% per years 11-20, but requires special assessments in the years 2038, 2043, and 2048. The annual percentage increases in the Annual Reserve Funding levels are due to a zero Starting Balance, and lack of a prior annual funding plan. Both alternatives have a reset in 2049 to lower the annual funding amount.

**The Next Step.** The next step in the Reserve Study process is for the Board to carefully review the Component Inventory to make sure that all included components are the responsibility of the Association, and that the priorities and the timing of the replacement is in keeping with the goals and objectives of the Board and Association.

If, after that review, the Reserve Study still recommends a substantial increase in the Annual Reserve Funding, VVA can work with the Board to develop a Strategic Funding Plan to ramp up the Funding levels incrementally. VVA welcomes the opportunity to answer questions or to discuss this Reserve Study in more detail should the Board so desire.

**Current Funding.** The Starting Balance and Current Annual Reserve Funding figures have been supplied by the Association's representative. Confirmation or audit of these figures is beyond the scope of the study. For the purposes of this study, it is assumed that the annual reserves contribution will be deposited annually.

**Level of Service.** This study has been performed as a Level 1 Full-Service Reserve Study with Site Visit/On- Site Review as defined by the Community Associations Institute (CAI), Nation Reserve Study Standards. As such, a complete inventory of components, including their condition and cost for major repair or replacement, was established by the Analyst for the common and limited common elements of this facility based on information provided by the managing agent and/or Board of Directors, or by those developed from visual assessments, field measurements, takeoffs from to-scale drawings, or review of provided historical data. The analysis, including fund status and funding plan, is developed from the inventory.

**Purpose.** The purpose of this Replacement Reserve Study is to provide Your Condominium (hereinafter called the Association) with an inventory of the common association facilities and infrastructure components that require periodic replacement. The Study includes a general view of the condition of these items and an effective financial plan to fund projected periodic replacements:

- **Inventory of Items Owned by the Association.** Section B lists the Projected Replacements of the commonly owned items that require periodic replacement using funding from Replacement Reserves. The Replacement Reserve Inventory also provides information about excluded items, which are items whose replacements are not scheduled for funding from Replacement Reserves.
- **Condition of Items Owned by the Association.** Section B includes our estimates of the normal economic life and the remaining economic life for the projected replacements. Section C provides a year-by- year listing of the projected replacements. Section D provides additional detail for items that are unique or deserving of attention because of their condition or the way they have been treated in this study.

- **Financial Plan.** The Association has a fiduciary responsibility to protect the appearance, value, and safety of the property and it is therefore essential the Association have a financial plan that provides funding for the projected replacements. In conformance with American Institute of Certified Public Accountant guidelines, Section A, Replacement Reserve Analysis evaluates the current funding of Replacement Reserves as reported by the Association and recommends annual funding of Replacement Reserves by the Cash Flow Method. Section A, Replacement Reserve Analysis includes graphic and tabular presentations of the reported current funding and the recommended funding based on the Cash Flow Method. An Executive Summary of these calculations is provided.

**Basis.** The data contained in this Replacement Reserve Study is based upon the following:

- The Request for Proposal submitted and executed by the Association.
- VVA performed a visual evaluation on September 28, 2023 to determine the general condition and remaining useful life and replacement cost for the commonly owned elements of this facility.
- This study contains additional recommendations to address inflation for the Cash Flow Method only. For this recommendation, VVA uses the Producers Price Index (PPI), which gauges inflation in manufacturing and construction. Please see Section A for further details.

**To-Scale Drawings.** Site and building plans were not used in the development of this study. We recommend the Association assemble and maintain a library of site and building plans of the entire facility. Record drawings should be scanned into an electronic format for safe storage and ease of distribution. Upon request for a nominal fee, VVA can provide drafting and scanning services.

**Acknowledgment.** VVA would like to acknowledge the assistance and input of Rose Etzel, the Association representative who provided very helpful insight into the current operations of the property.

**Analyst's Credentials.** Anthony van Vliet graduated from Tulane University with a degree in Architecture. He has worked as a licensed Architect for 36 years on commercial, residential, and mixed-use projects. He is a Licensed Architect in Maryland and Delaware, holds a certificate from the National Council of Architectural Review Boards (NCARB), and is a member of the American Institute of Architects (AIA). He has served on the Board and as Treasurer for the Roland Run Club in Baltimore and served on the Board and Financial Committee of the Sunny Seas Condominium in Ocean City, Maryland.

Respectfully Submitted,



Anthony van Vliet AIA, NCARB



VAN VLIET architecture | design

## SECTION A – REPLACEMENT RESERVES ANALYSIS

### CASH FLOW METHOD

The Your Condominium Replacement Reserve Analysis uses the Cash Flow Method (CFM) to calculate Replacement Reserve funding for the periodic replacement of the 24 Projected Replacements identified in the Replacement Reserve Inventory.

In the Cash Flow Method, the Reserve Fund is considered one pool of money, where contributions to the fund are established to offset the annual Reserve expenditures from the fund. It is not significant if an annual expense is one project, or several projects. It is just income offsetting expenses. A Cash Flow contribution rate is established by testing different contribution rates until the desired Funding Goal (Threshold or Baseline) is achieved. There is no breakdown of the Reserve Fund into different “accounts” allocated to individual components.

The analysis and calculations of recommended funding of Replacement Reserves are based upon an evaluation of the Current Funding, Study Period, Beginning Reserve Balance, the Replacement Reserve Inventory and associated Conditions Assessment.

### FISCAL YEAR & STUDY YEAR

The Association reports that their accounting year begins on January 1. The Study Year, the first year evaluated by the Replacement Reserve Analysis, also begins on January 1, 2024.

### STUDY PERIOD

The Replacement Reserve Analysis evaluates the funding of Replacement Reserves over a 30-year Study Period.

### SUMMARY OF CURRENT REPLACEMENT RESERVES & FUNDING

- The Replacement Reserves Starting Balance as of January 1, 2024 is projected to be \$0.
- The reported Current Annual Funding plan for Reserves is \$0, which is inadequate to fund projected replacements starting in 2029.

### SUMMARY OF PROJECTED REPLACEMENT EXPENDITURES

- The Your Condominium - Replacement Reserve Inventory identifies 24 items that will require periodic replacement, that are to be funded from Replacement Reserve
- The **cumulative cost** of these replacements is estimated to be **\$205,193** over the 30-year Study Period, with the first expenditures occurring in 2029 and 2030.
- Section B provides detailed information on the Replacement Reserve Inventory. The Projected Replacements are divided into 3 major categories.

### RECOMMENDED INITIAL ANNUAL RESERVES FUNDING

- The initial Annual Reserve Funding level for 2024 is **\$2,400** which is **\$400 Per unit**.

### FUNDING GOAL METHODS

This study provides two alternative Funding Goal methods: Threshold Finding or Baseline Funding. Maryland legislation House Bill 107 (2022) regarding a Reserve Study does not clearly set statutory minimum annual funding requirements, or require that a specific Funding Goal method be utilized to set the annual reserve funding contributions.

However, it is believed the intent of the legislation is to alleviate the need for large special assessments by having the need funds already in reserves, and as such this Study recommends the Threshold Funding goal method – see Section A1. The Board of Directors and Association members should fully discuss and agree on the funding goal method to be used.

The two methods are summarized as follows:

1. **Threshold Funding (recommended)** – Establishing a reserve funding goal of keeping the reserve balance above a specified dollar amount. Generally, this minimum balance is set at a multiple of the 30-year expenditures average. A maximum reserve amount is not set. Recommends a fairly uniform annual reserve contribution amount to ensure the needed funds are available at the time the component is projected to be replaced. The intent of a Threshold funding plan is to eliminate special assessments.
2. **Baseline Funding** – Establishing a reserve funding goal of allowing the reserve cash balance to approach but never fall below zero during the cash flow projection. To achieve this, the plan may require a special assessment in several Peak Years. The Baseline funding goal is the funding plan with the greatest risk of not being able to fund future repair and replacement of major components, and it is not recommended as a long-term solution/plan. Unless the special assessments can be collected timely, a Baseline funding plan may lead to project delays or the need for borrowing.

### **INFLATION ADJUSTMENT**

The Cash Flow Method calculations in this Reserve Study reflect inflated replacement costs of 6% annually for near term expenses projected within the next 4 years, then a long-term historical average of 3% for those in years 5 through 15, and 1.5% beyond that timeframe. This approach does not unfairly burden the current owners by assuming today's high inflation will continue for all 30 years projected in the Reserve Study.

The inflation-adjusted funding calculations outlined above are not intended to be a substitute for periodic evaluation and update of common elements by an experienced Reserve Analyst. Remember that in addition to component conditions (Useful Life and Remaining Useful Life), all current cost and expense inflation assumptions should be updated in the Reserve Study as noted below.

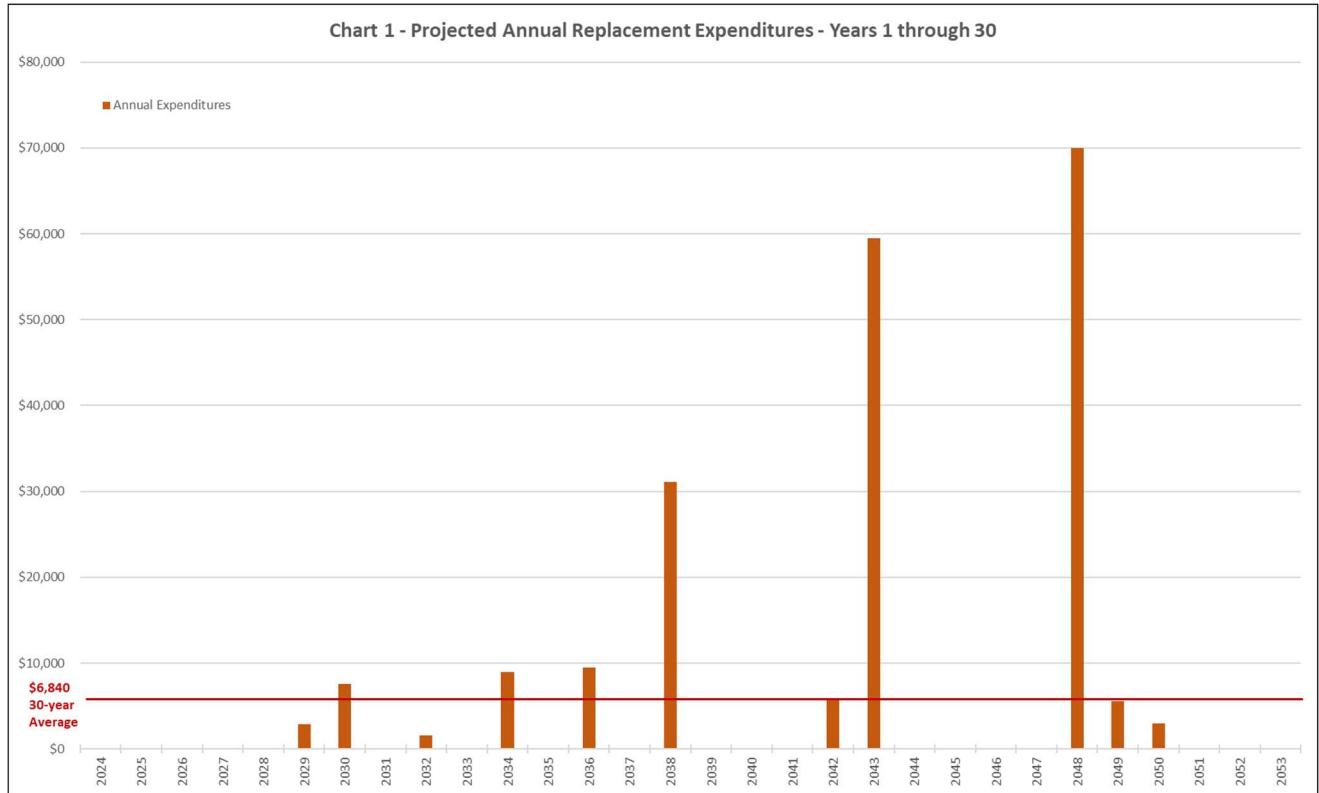
Prior to approving a budget based upon the 2025, 2026 and 2027 inflation-adjusted funding calculations, the 6 % rate of inflation used in our calculations should be compared to PPI rates published by the Bureau of Labor Statistics. If there is a significant discrepancy (over 1 percentage point), contact VVA prior to using the Inflation Adjusted Funding.

### **INTEREST ON RESERVES**

The Recommended Funding calculations in this Reserve Study do account for interest earned on Replacement Reserves, at a 2% annual interest rate. The interest earned is retained in the Reserves, resulting in a reduction in the funding contribution needed from owners. The annual interest rate used should be periodically evaluated and adjusted in the funding plan.

**ANNUAL EXPENDITURES FOR PROJECTED REPLACEMENTS**

Chart 1 shows annual expenditures for Projected Replacements over the 30-year Study Period. The red line shows the 30-year average annual expenditure of \$6,840. Section B provides the Inventory Data and Section C provides a year-by-year Calendar of these annual expenditures.



**The Next Step.** The next step in the Reserve Study process is for the Board to carefully review the Component Inventory to make sure that all included components are the responsibility of the Association, and that the priorities and the timing of the replacement is in keeping with the goals and objectives of the Board and Association

**UPDATING OF THE FUNDING PLAN**

The Association has a responsibility to review the Funding Plan annually. The review should include a comparison and evaluation of actual reserve funding with recommended levels shown in the Threshold Funding Plan. The Projected Replacements listed in Section C should be compared with any replacements accomplished and funded from Replacement Reserves. Discrepancies should be evaluated and if necessary, the Reserve Study should be updated or a new study commissioned. We recommend annual increases in replacement reserve funding to account for the impact of inflation.

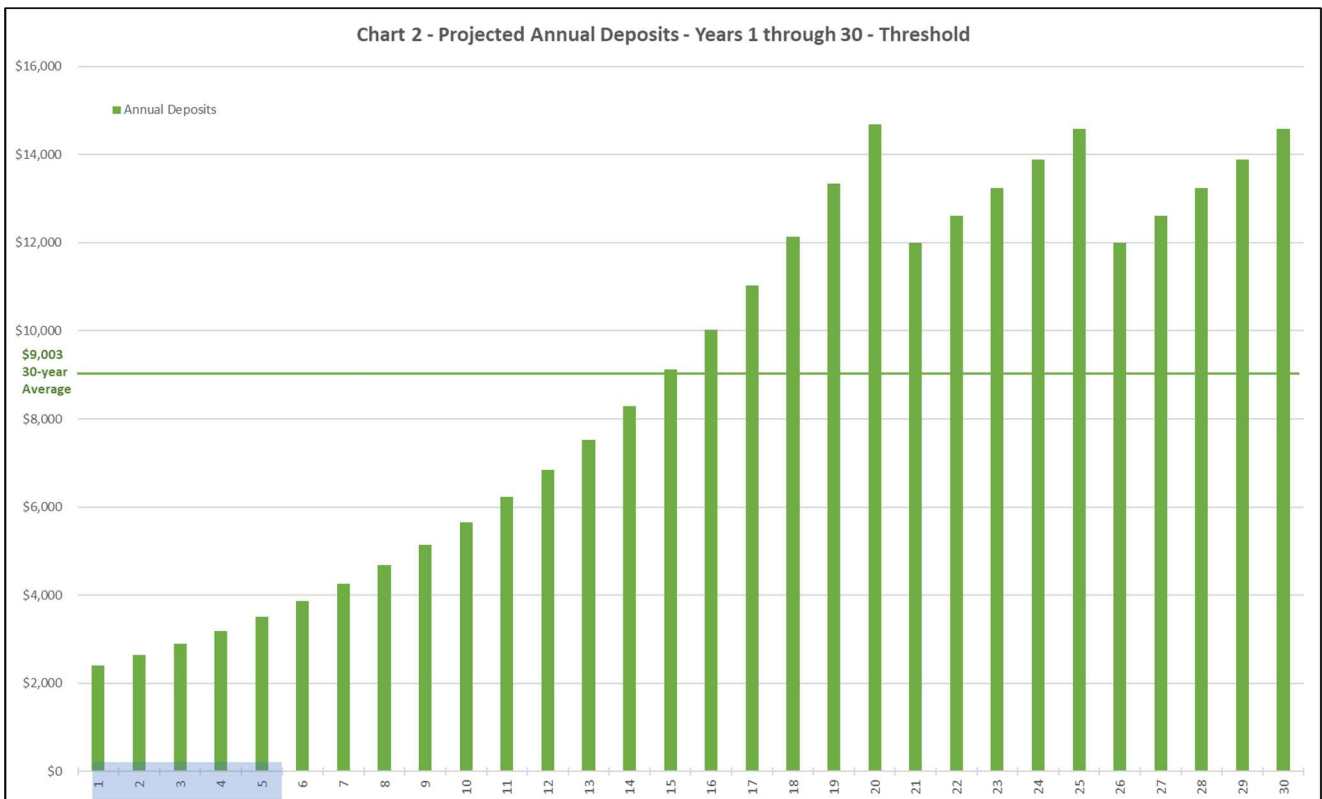
**UPDATING OF THE REPLACEMENT RESERVE STUDY**

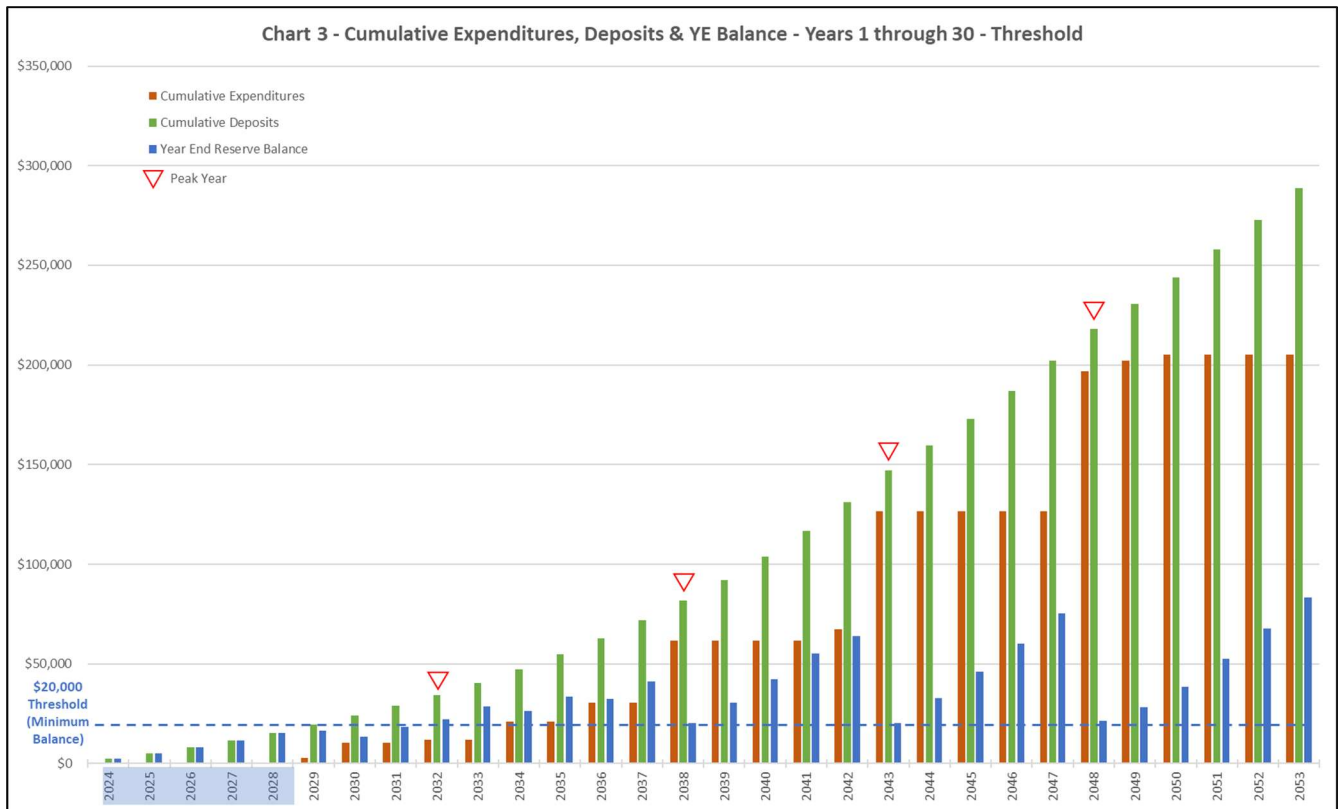
Regular Reserve Study updates continue to be your best strategy in our complex and rapidly changing world. At a minimum, the Replacement Reserve Study should be professionally updated every three to five years or after completion of a major replacement project. Updating should also be considered if during the annual review of the Funding Plan, discrepancies are noted between projected and actual reserve funding or replacement costs. Updating may also be necessary if there is a meaningful discrepancy between the actual inflation rate and the inflation rate used for adjusting the future cost of replacement items in Section B.



**A1 - RECOMMENDED RESERVES FUNDING PLAN – THRESHOLD METHOD**

- **\$2,400 / \$400 per Unit** - The recommended initial Annual Reserve Funding level for the 2024 Study Year.
- **\$20,000 Threshold (Minimum Balance)** - The recommended Replacement Reserve Funding Plan is based on the Threshold method annual funding. A Threshold (minimum reserves balance) is set at approximately 3 times the 30-year average of expenditures (3 x \$6,840).
- **Maximum Reserve** - A maximum reserve amount is not set in the Threshold method.
- **Peak Years.** A year in which the reserves on hand are projected to fall to the established Threshold level. The Peak Years are projected to occur in 2032, 2038, 2043, and 2048 with Replacement Reserves on deposit dropping to the Minimum Balance after the completion of scheduled replacement projects. Peak Years are identified in Chart 3 and Table 1.
- **Special Assessments** – None. The Threshold method’s funding goal is to eliminate the need for any assessments.
- **Funding Increases** - The recommended Threshold funding plan increases the initial 2024 amount by 10% per year. The 10% annual percentage increases in the Annual Reserve Funding levels are due to a zero Starting Balance, and lack of a prior annual funding plan. The Projected Annual Deposits can be seen in Chart 2 and Table 1.
- **Funding Decreases** - The plan has a reset in 2044 and 2049 to lower the annual funding amount.

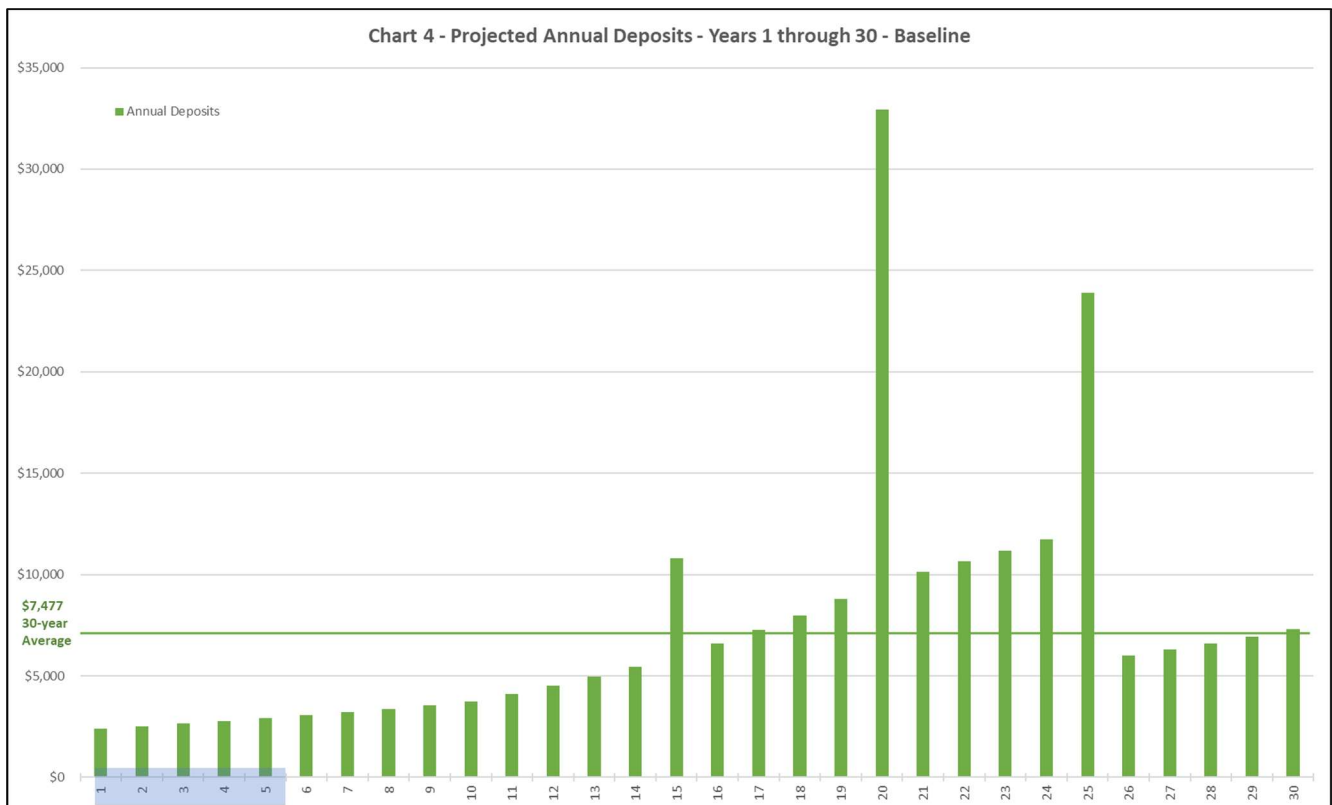


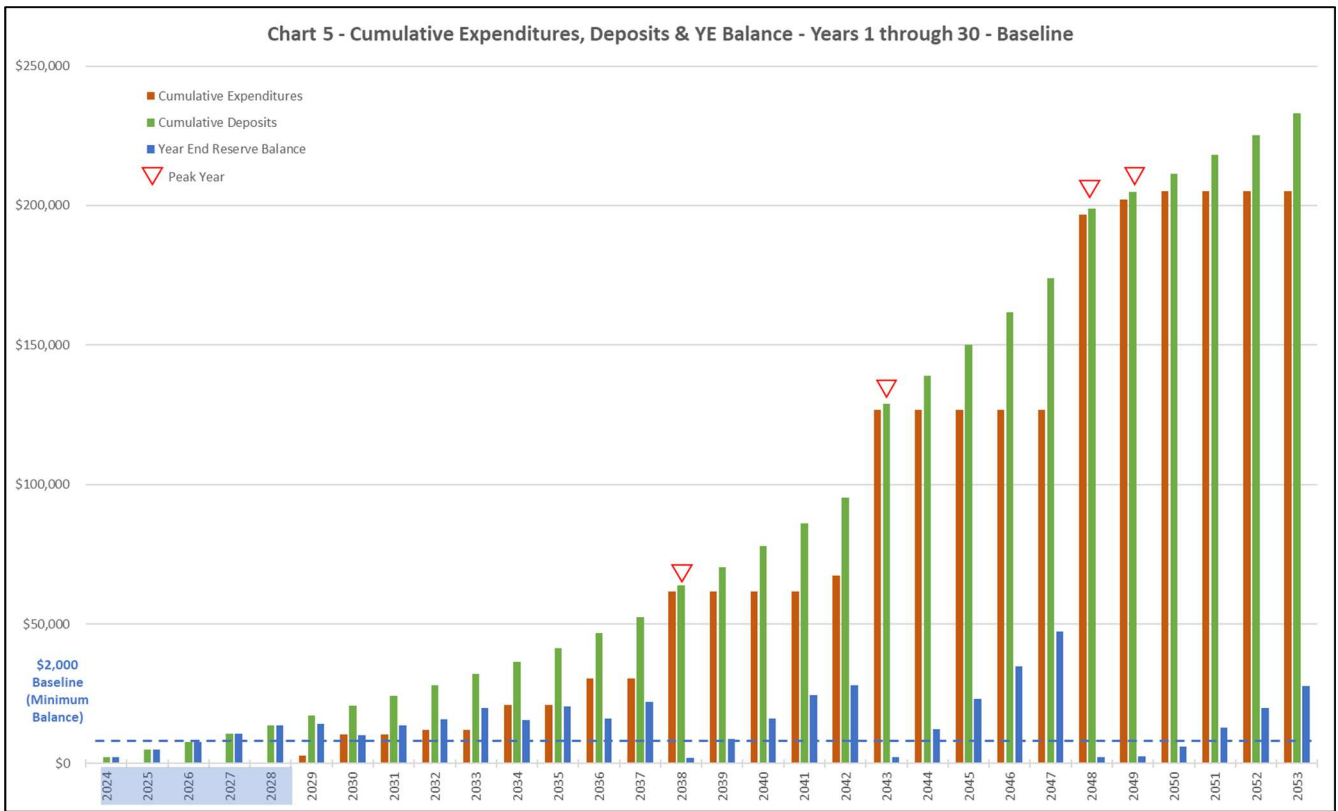


<b>Table 1 - Expenditures, Deposits &amp; YE Balance - Years 1 through 30 - Threshold Funding</b>										
Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Reserve Starting Balance	\$0	\$2,400	\$5,088	\$8,094	\$11,450	\$15,193	\$16,464	\$13,498	\$18,445	\$22,375
Projected Replacement Exp.	\$0	\$0	\$0	\$0	\$0	(\$2,898)	(\$7,546)	\$0	(\$1,583)	\$0
Annual Deposit (+10%)	\$2,400	\$2,640	\$2,904	\$3,194	\$3,514	\$3,865	\$4,252	\$4,677	\$5,145	\$5,659
(2%) Annual Interest	\$0	\$48	\$102	\$162	\$229	\$304	\$329	\$270	\$369	\$448
<b>End of Year Balance</b>	<b>\$2,400</b>	<b>\$5,088</b>	<b>\$8,094</b>	<b>\$11,450</b>	<b>\$15,193</b>	<b>\$16,464</b>	<b>\$13,498</b>	<b>\$18,445</b>	<b>\$22,375</b>	<b>\$28,482</b>
Cumulative Expenditures	\$0	\$0	\$0	\$0	\$0	(\$2,898)	(\$10,445)	(\$10,445)	(\$12,028)	(\$12,028)
Cumulative Deposits	\$2,400	\$5,088	\$8,094	\$11,450	\$15,193	\$19,362	\$23,943	\$28,890	\$34,403	\$40,510
Annual Reserve Dues per Unit	\$400	\$440	\$484	\$532	\$586	\$644	\$709	\$779	\$857	\$943
Year	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Reserve Starting Balance	\$28,482	\$26,299	\$33,673	\$32,383	\$41,316	\$20,130	\$30,558	\$42,197	\$55,172	\$63,971
Projected Replacement Exp.	(\$8,977)	\$0	(\$9,496)	\$0	(\$31,126)	\$0	\$0	\$0	(\$5,648)	(\$59,447)
Annual Deposit (+10%)	\$6,225	\$6,847	\$7,532	\$8,285	\$9,114	\$10,025	\$11,028	\$12,131	\$13,344	\$14,678
(2%) Annual Interest	\$570	\$526	\$673	\$648	\$826	\$403	\$611	\$844	\$1,103	\$1,279
<b>End of Year Balance</b>	<b>\$26,299</b>	<b>\$33,673</b>	<b>\$32,383</b>	<b>\$41,316</b>	<b>\$20,130</b>	<b>\$30,558</b>	<b>\$42,197</b>	<b>\$55,172</b>	<b>\$63,971</b>	<b>\$20,482</b>
Cumulative Expenditures	(\$21,005)	(\$21,005)	(\$30,501)	(\$30,501)	(\$61,627)	(\$61,627)	(\$61,627)	(\$61,627)	(\$67,275)	(\$126,722)
Cumulative Deposits	\$47,305	\$54,678	\$62,884	\$71,817	\$81,757	\$92,185	\$103,824	\$116,799	\$131,246	\$147,204
Annual Reserve Dues per Unit	\$1,037	\$1,141	\$1,255	\$1,381	\$1,519	\$1,671	\$1,838	\$2,022	\$2,224	\$2,446
Year	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Reserve Starting Balance	\$20,482	\$32,891	\$46,149	\$60,302	\$75,400	\$21,505	\$28,398	\$38,621	\$52,623	\$67,567
Projected Replacement Exp.	\$0	\$0	\$0	\$0	(\$69,988)	(\$5,537)	(\$2,945)	\$0	\$0	\$0
Annual Deposit (Reset +5%)	\$12,000	\$12,600	\$13,230	\$13,892	\$14,586	\$12,000	\$12,600	\$13,230	\$13,892	\$14,586
(2%) Annual Interest	\$410	\$658	\$923	\$1,206	\$1,508	\$430	\$568	\$772	\$1,052	\$1,351
<b>End of Year Balance</b>	<b>\$32,891</b>	<b>\$46,149</b>	<b>\$60,302</b>	<b>\$75,400</b>	<b>\$21,505</b>	<b>\$28,398</b>	<b>\$38,621</b>	<b>\$52,623</b>	<b>\$67,567</b>	<b>\$83,505</b>
Cumulative Expenditures	(\$126,722)	(\$126,722)	(\$126,722)	(\$126,722)	(\$196,711)	(\$202,247)	(\$205,193)	(\$205,193)	(\$205,193)	(\$205,193)
Cumulative Deposits	\$159,613	\$172,871	\$187,024	\$202,122	\$218,216	\$230,646	\$243,814	\$257,816	\$272,760	\$288,698
Annual Reserve Dues per Unit	\$2,000	\$2,100	\$2,205	\$2,315	\$2,431	\$2,000	\$2,100	\$2,205	\$2,315	\$2,431

**A2 - ALTERNATIVE RESERVES FUNDING – BASELINE METHOD**

- **This funding goal plan method is not recommended.** It has the greatest risk of not being able to fund future repair and replacement of major components, and it is not a long-term solution/plan. Unless the special assessments can be collected timely, a Baseline funding plan may lead to project delays or the need for borrowing.
- **\$2,400 / \$400 per Unit** - The recommended initial Annual Reserve Funding level for the 2024 Study Year.
- **\$2,00 Baseline** (Minimum Balance) - The alternative Replacement Reserve Funding Plan is based on the Baseline method annual funding. The minimum balance (baseline) is set at \$2,000.
- **Peak Years.** A year in which the reserves on hand are projected to fall close to the established Baseline level. The Peak Years are projected to occur in 2038, 2043, 2048 and 2049 with Replacement Reserves on deposit dropping to the Minimum Balance after the completion of replacements. Peak Years are identified in Chart 5 and Table 2.
- **Special Assessments** - The Baseline funding alternative requires special assessments in the years **2038 for \$4,800** (\$800 per Unit), **2043 for \$23,280** (\$3,880 per Unit), and **2048 for \$11,582** (\$1,930 per Unit). Note these special assessments are in addition to the normally scheduled annual deposits to reserves in those same years, respectively, of \$5,996 (\$999), \$9,657 (\$1,609), and \$12,325 (\$2,054). These assessment amounts can be reduced by increasing the annual reserve contributions and increasing the Baseline (minimum balance) amount.
- **Funding Increases** - The alternative Baseline funding plan increases the initial 2024 amount by a lower 5% per years 1-10 & 21-30, and 10% per years 11-20, but requires special assessments in the years 2038, 2043, and 2048. The 5% & 10% annual percentage increases in the Annual Reserve Funding levels are due to a zero Starting Balance, and lack of a prior annual funding plan. The Projected Annual Deposits can be seen in Chart 4 and Table 2.
- **Funding Decreases** - The plan has a reset in 2049 to lower the annual funding amount.





<b>Table 2 - Expenditures, Deposits &amp; YE Balance - Years 1 through 30 - Baseline Funding</b>										
Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Reserve Starting Balance	\$0	\$2,400	\$4,968	\$7,713	\$10,646	\$13,776	\$14,216	\$10,171	\$13,751	\$15,989
Projected Replacement Exp.	\$0	\$0	\$0	\$0	\$0	(\$2,898)	(\$7,546)	\$0	(\$1,583)	\$0
Annual Deposit (+5%)	\$2,400	\$2,520	\$2,646	\$2,778	\$2,917	\$3,063	\$3,216	\$3,377	\$3,546	\$3,723
(2%) Annual Interest	\$0	\$48	\$99	\$154	\$213	\$276	\$284	\$203	\$275	\$320
<b>End of Year Balance</b>	<b>\$2,400</b>	<b>\$4,968</b>	<b>\$7,713</b>	<b>\$10,646</b>	<b>\$13,776</b>	<b>\$14,216</b>	<b>\$10,171</b>	<b>\$13,751</b>	<b>\$15,989</b>	<b>\$20,031</b>
Cumulative Expenditures	\$0	\$0	\$0	\$0	\$0	(\$2,898)	(\$10,445)	(\$10,445)	(\$12,028)	(\$12,028)
Cumulative Deposits	\$2,400	\$4,968	\$7,713	\$10,646	\$13,776	\$17,115	\$20,615	\$24,196	\$28,017	\$32,060
Annual Reserve Dues per Unit	\$400	\$420	\$441	\$463	\$486	\$511	\$536	\$563	\$591	\$621
Year	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Reserve Starting Balance	\$20,031	\$15,550	\$20,366	\$16,234	\$22,009	\$2,120	\$8,758	\$16,189	\$24,493	\$28,115
Projected Replacement Exp.	(\$8,977)	\$0	(\$9,496)	\$0	(\$31,126)	\$0	\$0	\$0	(\$5,648)	(\$59,447)
Annual Deposit (+10%)	\$4,096	\$4,505	\$4,956	\$5,451	\$10,796	\$6,596	\$7,255	\$7,981	\$8,779	\$32,937
(2%) Annual Interest	\$401	\$311	\$407	\$325	\$440	\$42	\$175	\$324	\$490	\$562
<b>End of Year Balance</b>	<b>\$15,550</b>	<b>\$20,366</b>	<b>\$16,234</b>	<b>\$22,009</b>	<b>\$2,120</b>	<b>\$8,758</b>	<b>\$16,189</b>	<b>\$24,493</b>	<b>\$28,115</b>	<b>\$2,167</b>
Cumulative Expenditures	(\$21,005)	(\$21,005)	(\$30,501)	(\$30,501)	(\$61,627)	(\$61,627)	(\$61,627)	(\$61,627)	(\$67,275)	(\$126,722)
Cumulative Deposits	\$36,556	\$41,372	\$46,735	\$52,510	\$63,747	\$70,385	\$77,816	\$86,120	\$95,389	\$128,889
Annual Reserve Dues per Unit	\$683	\$751	\$826	\$909	\$1,799	\$1,099	\$1,209	\$1,330	\$1,463	\$5,489
Year	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Reserve Starting Balance	\$2,167	\$12,350	\$23,244	\$34,888	\$47,323	\$2,188	\$2,695	\$6,104	\$12,841	\$20,044
Projected Replacement Exp.	\$0	\$0	\$0	\$0	(\$69,988)	(\$5,537)	(\$2,945)	\$0	\$0	\$0
Annual Deposit (+5%)	\$10,140	\$10,647	\$11,179	\$11,738	\$23,907	\$6,000	\$6,300	\$6,615	\$6,946	\$7,293
(2%) Annual Interest	\$43	\$247	\$465	\$698	\$946	\$44	\$54	\$122	\$257	\$401
<b>End of Year Balance</b>	<b>\$12,350</b>	<b>\$23,244</b>	<b>\$34,888</b>	<b>\$47,323</b>	<b>\$2,188</b>	<b>\$2,695</b>	<b>\$6,104</b>	<b>\$12,841</b>	<b>\$20,044</b>	<b>\$27,737</b>
Cumulative Expenditures	(\$126,722)	(\$126,722)	(\$126,722)	(\$126,722)	(\$196,711)	(\$202,247)	(\$205,193)	(\$205,193)	(\$205,193)	(\$205,193)
Cumulative Deposits	\$139,072	\$149,966	\$161,610	\$174,046	\$198,899	\$204,943	\$211,297	\$218,034	\$225,236	\$232,930
Annual Reserve Dues per Unit	\$1,690	\$1,774	\$1,863	\$1,956	\$3,985	\$1,000	\$1,050	\$1,103	\$1,158	\$1,216

## SECTION B - REPLACEMENT RESERVE INVENTORY

**PROJECTED REPLACEMENTS.** Your Condominium Replacement Reserve Inventory identifies 24 items which are Projected Replacements, and the periodic replacements of these items are scheduled for funding from Replacement Reserves. The Projected Replacements have an estimated one-time replacement cost of \$195,053. Cumulative Replacements totaling \$205,193 are scheduled in the Replacement Reserve Inventory over the 30-year Study Period. Cumulative Replacements include those components that are replaced more than once during the period of the study.

Projected Replacements are the replacement of commonly owned physical assets that require periodic replacement and whose replacement is to be funded from Replacement Reserves.

**CATEGORIES.** The 24 items included in the Your Condominium Replacement Reserve Inventory are divided into 4 major categories. Each category is printed on a separate table below:

- **Site Items**
- **Building Systems**
- **Exterior Items**
- **Exclusions**

**EXCLUDED ITEMS.** Some of the items contained in the Replacement Reserve Inventory are 'Excluded Items'. Multiple categories of items are typically excluded from funding by Replacement Reserves, including but not limited to:

- **Tax Code.** The United States Tax Code grants very favorable tax status to Replacement Reserves, conditioned on expenditures being made within certain guidelines. These guidelines typically exclude maintenance activities, minor repairs, and capital improvements.
- **Value.** Items with a replacement cost of less than \$1,000 and/or a normal economic life of less than 3 years are typically excluded from funding from Replacement Reserves. This exclusion should reflect the Association policy on the administration of Replacement Reserves. If the Association has selected an alternative level, it will be noted in the Replacement Reserve Inventory.
- **Long-lived Items.** Items are excluded from the Replacement Reserve Inventory when items are properly maintained and are assumed to have a life equal to the property.
- **Unit improvements.** Items owned by a single unit and where the items serve a single unit are generally assumed to be the responsibility of that unit, not the Association.
- **Other non-common improvements.** Items owned by the local government, public and private utility companies, the United States Postal Service, Master Associations, state and local highway authorities, etc., may be installed on property that is owned by the Association. These types of items are generally not the responsibility of the Association and are excluded from the Replacement Reserve Inventory.

**LEVEL OF SERVICE.** This Replacement Reserve Inventory has been developed in compliance with the standards established for a Level One Study - Full Service, as defined by the National Reserve Study Standards, established in 1998 by Community Associations Institute, which states:

A Level I - Full-Service Reserve Study includes the computation of complete component inventory information regarding commonly owned components provided by the Association, quantities derived from field measurements, and/or quantity takeoffs from to-scale engineering drawings that may be made available. The condition of all components is ascertained from a visual inspection of each component by the analyst. The remaining economic life and the value of the components are provided based on these observations and the funding status and funding plan are then derived from the analysis of this data.

**INVENTORY DATA.** Each of the 24 Projected Replacements listed in the Replacement Reserve Inventory includes the following data:

**Item Number.** The Item Number is assigned sequentially and is intended for identification purposes only.

**Item Description.** We have identified each item included in the Inventory. Additional information may be included in the Comments section at the bottom of each page of the Inventory.

**Units.** We have used standard abbreviations to identify the number of units including SF-square feet, LF-lineal feet, SY-square yard, LS-lump sum, EA-each, and PR-pair. Non-standard abbreviations are noted in the Comments section at the bottom of the page.

**Number of Units.** The methods used to develop the quantities are discussed in "Level of Service" above.

**Unit Replacement Cost.** We use several sources to develop the unit cost data shown in the Inventory: actual replacement cost data provided by the client, information provided by local contractors and suppliers, industry standard estimating manuals, and previous study.

**Normal Economic Life (Years).** The number of years that a new and properly installed item should be expected to remain in service.

**Remaining Economic Life (Years).** The estimated number of years before an item will need to be replaced. In "normal" conditions, this could be calculated by subtracting the age of the item from the Normal Economic Life of the item, but only rarely do physical assets age "normally". Some items may have longer or shorter lives depending on many factors such as environment, initial quality of the item, maintenance, etc.

**Total Replacement Cost.** This is calculated by multiplying the Unit Replacement Cost by the Number of Units.

**PARTIAL FUNDING.** Items may have been included in the Replacement Reserve Inventory at less than 100 percent of their full quantity and/or replacement cost. This is done on items that will never be replaced in their entirety, but which may require periodic replacements over an extended period of time. The assumptions that provide the basis for any partial funding are noted in the Comments section.

**REMAINING ECONOMIC LIFE GREATER THAN 30 YEARS.** The calculations do not include funding for initial replacements beyond 30 years. These replacements are included in this Study for tracking and evaluation. They should be included for funding in future Studies when they enter the 30-year window.

**ACCURACY OF THE ANALYSIS.** The accuracy of the Replacement Reserve Analysis is dependent upon expenditures from Replacement Reserves being made ONLY for the 24 Projected Replacements specifically listed in the Replacement Reserve Inventory. The inclusion/exclusion of items from the Replacement Reserve Inventory is discussed at the beginning of this section.

<b>SITE ITEMS</b>		6.00%	Inflation in REL years 1 - 4		NEL- Normal Economic Life (yrs)			
PROJECTED REPLACEMENTS		3.00%	Inflation in REL years 5 - 15		REL- Remaining Economic Life (yrs)			
		1.50%	Inflation in REL years 16 >					
#	ITEM DESCRIPTION	UNIT	QTY OF UNITS	UNIT COST	NEL	REL	REPLACEMENT COST (TODAY)	REPLACEMENT COST (FUTURE)
1	Parking Lot & Driveway, coarse gravel	sf	3,700	\$1.80	20	12	\$6,660	\$9,496
2	Raised walkways, Synthetic decking on PTL structure	sf	72	\$38.00	25	25	\$2,736	\$3,970
3	Sanitary laterals	ls	1	\$2,500	30	5	\$2,500	\$2,898
4	Domestic water laterals	ls	1	\$1,250	35	8	\$1,250	\$1,583
5	Wheel stops, concrete	ea	10	\$200.00	20	6	\$2,000	\$2,388
6	Concrete trash corral pad	sf	35	\$16.00	30	15	EXCLUDED	EXCLUDED
<b>Replacement Costs - Subtotal - Site Items</b>							<b>\$15,146</b>	<b>\$20,335</b>
<b>COMMENTS - Site Items</b>								
a. Item #1 - Parking and driveway unit cost assumes minimal base preparation required. Reportedly resurfaced in 2014-15.								
b. Item #6 - Does not meet the minimum threshold for reserves; in operating budget.								

<b>BUILDING SYSTEMS</b>		1.50%	Inflation in REL years 16 >		NEL- Normal Economic Life (yrs)			
PROJECTED REPLACEMENTS					REL- Remaining Economic Life (yrs)			
#	ITEM DESCRIPTION	UNIT	QTY OF UNITS	UNIT COST	NEL	REL	REPLACEMENT COST (TODAY)	REPLACEMENT COST (FUTURE)
7	Building piping (allowance)	units	6	\$4,800	45	34	EXCLUDED	EXCLUDED
8	Main electrical feed panels (allowance)	ls	6	\$250	40	32	EXCLUDED	EXCLUDED
9	Meter socket and service, 100 amp	ls	1	\$8,000	40	32	EXCLUDED	EXCLUDED
<b>Replacement Costs - Subtotal - Building Systems</b>							<b>\$0</b>	<b>\$0</b>
<b>COMMENTS - Building Systems</b>								
a. Item #7-9 - REL is outside the 30-year Study Period.								

EXTERIOR ITEMS		6.00%	Inflation in REL years 1 - 4		NEL- Normal Economic Life (yrs)			
PROJECTED REPLACEMENTS		3.00%	Inflation in REL years 5 - 15		REL- Remaining Economic Life (yrs)			
		1.50%	Inflation in REL years 16 >					
#	ITEM DESCRIPTION	UNIT	QTY OF UNITS	UNIT COST	NEL	REL	REPLACEMENT COST (TODAY)	REPLACEMENT COST (FUTURE)
10	Roofing, asphalt shingles	sf	3,400	\$5.00	30	14	\$17,000	\$25,714
11	Roof ridge vent	lf	50	\$7.00	30	14	\$350	\$529
12	Soffit and trim, vinyl	lf	220	\$9.00	30	14	\$1,980	\$2,995
13	Gutters, 5" aluminum, front and rear	lf	72	\$10.00	30	14	\$720	\$1,089
14	Downspouts, aluminum, 2 front and 2 rear	lf	88	\$6.00	30	14	\$528	\$799
15	Siding and trim, vinyl, standard clapboard	sf	5,600	\$8.00	35	19	\$44,800	\$59,447
16	Crawl space skirting perimeter, composite plank	lf	160	\$35.00	30	10	\$5,600	\$7,526
17	Door, entry, flush (3' X 6'8")	By unit owner					EXCLUDED	EXCLUDED
18	Door, aluminum sliding glass (6' X 6'8")	By unit owner					EXCLUDED	EXCLUDED
19	Window, double hung, vinyl replacement	ea	72	\$680.00	40	24	\$48,960	\$69,988
20	Front Porch & Stairs (including skirting)	New in 2023					EXCLUDED	EXCLUDED
21	Rear Fire Escape	New in 2023					EXCLUDED	EXCLUDED
22	Exterior lighting, small general entry @ stairs	ea	3	\$200.00	20	20	EXCLUDED	EXCLUDED
23	Exterior lighting, decorative sconce at unit entries	ea	6	\$180.00	15	10	\$1,080	\$1,451
24	Recalking around windows	ea	72	\$60.00	12	6	\$4,320	\$5,158
<b>Replacement Costs - Subtotal - Exterior Items</b>							<b>\$125,338</b>	<b>\$174,698</b>
<b>COMMENTS - Exterior Items</b>								
a.	Please note that a Reserve Study is based on a visual assessment of those conditions that are visible and apparent at the time of the condition assessment. A comprehensive structural evaluation of the deck/balcony structures is beyond the scope of a Reserve Study. It is recommended that the Association engage a Structural Engineer to conduct a more comprehensive evaluation of the decks/balconies and other building structural elements.							
b.	Item #10-11: Roofing & vent, asphalt shingles - Reportedly replaced in 2006-07 with 30 yr shingles.							
c.	Item #12: Soffit & Trim - Assumes were replaced in 2007 with siding.							
d.	Item #13-14: Gutter and downspouts, 5" aluminum - Assumes both were replaced in 2006-07 with roofing.							
e.	Item #15: Siding and trim, vinyl, standard - Reportedly replaced in 2007.							
f.	Door, entry, flush (3' X 6'8") - Per community representative, these are responsibility of the unit owners.							
g.	Door, aluminum sliding glass (6' X 6'8") - Per community representative, these are responsibility of the unit owners.							
h.	Item #19: Windows - Reportedly replaced in 2007.							
i.	Item #20-21: Front Porch, Stai & Fire Escape - Reportedly replaced in 2023.							
j.	Item #22 - Exterior lighting, small general entry - Does not meet minimum threshold for reserves.							



## SECTION C - CALENDAR OF PROJECTED ANNUAL REPLACEMENTS

**GENERAL STATEMENT.** The 24 Projected Replacements in the Your Condominium Replacement Reserve Inventory whose replacement is scheduled to be funded from Replacement Reserves are broken down on a year-by-year basis, beginning in the tables below.

### REPLACEMENT RESERVE ANALYSIS AND INVENTORY POLICIES, PROCEDURES, AND ADMINISTRATION

- **REVIEW OF THE REPLACEMENT RESERVE STUDY.** For this study to be effective, it should be reviewed by the Board of Directors, those responsible for the management of the items included in the Replacement Reserve Inventory, and the accounting professionals employed by the Association.
- **REVISIONS.** Revisions will be made to the Replacement Reserve Analysis and Replacement Reserve Inventory in accordance with the written instructions of the Board of Directors. No additional charge is incurred for the first revision if requested in writing within three months of the date of the Replacement Reserve Study. It is our policy to provide revisions in electronic (Adobe PDF) format only. We acknowledge that there are instances in which multiple revisions are necessary. However, unnecessary multiple revisions drain on our time and manpower resources. Therefore, VVA will exercise its sole discretion as to whether additional charges are incurred.
- **TAX CODE.** The United States Tax Code grants favorable tax status to a common interest development (CID) meeting certain guidelines for their Replacement Reserve. If a CID files their taxes as a 'Corporation' on Form 1120 (IRC Section 277), these guidelines typically require maintenance activities, partial replacements, minor replacements, capital improvements, and one-time only replacements to be excluded from Reserves. A CID cannot co-mingle planning for maintenance activities with capital replacement activities in the Reserves (Revenue Ruling 75-370). Funds for maintenance activities and capital replacements activities must be held in separate accounts. If a CID files taxes as an "Exempt Homeowners Association" using Form 1120H (IRC Section 528), the CID does not have to segregate these activities. However, because the CID may elect to change their method of filing from year to year within the Study Period, we advise using the more restrictive approach. We further recommend that the CID consult with their Accountant and consider creating separate and independent accounts and reserves for large maintenance items, such as painting.
- **CONFLICT OF INTEREST.** Neither VVA nor the Reserve Analyst has any prior or existing relationship with this Association which would represent a real or perceived conflict of interest.
- **RELIANCE ON DATA PROVIDED BY THE CLIENT.** Information provided by an official representative of the Association regarding financial, physical conditions, quality, or historical issues is deemed reliable.
- **INTENT.** This Replacement Reserve Study reflects the information provided by the Association and the visual evaluations of the Analyst. It has been prepared for the sole use of the Association and is not for the purpose of performing an audit, quality/forensic analyses, or background checks of historical records.
- **PREVIOUS REPLACEMENTS.** Information provided to VVA regarding prior replacements is considered to be accurate and reliable. Our visual evaluation is not a project audit or quality inspection.
- **EXPERIENCE WITH FUTURE REPLACEMENTS.** The Calendar of Annual Projected Replacements lists replacements we have projected to occur over the Study Period. Your actual experience in replacing the items may differ significantly from the cost estimates and time frames shown because of conditions beyond our control. These differences may be caused by maintenance practices, inflation, variations in pricing and market conditions, future technological developments, regulatory actions, acts of God, and luck. Some items may function normally during our visual evaluation and then fail without notice.

**CALENDAR OF PROJECTED REPLACEMENTS BY YEAR**

Item	2024 - Study Year 1	\$ Cost
Total Scheduled Replacements		<b>\$0</b>

Item	2025 - Year 2	\$ Cost
Total Scheduled Replacements		<b>\$0</b>

Item	2026 - Year 3	\$ Cost
Total Scheduled Replacements		<b>\$0</b>

Item	2027 - Year 4	\$ Cost
Total Scheduled Replacements		<b>\$0</b>

Item	2028 - Year 5	\$ Cost
Total Scheduled Replacements		<b>\$0</b>

Item	2029 - Year 6	\$ Cost
3 Sanitary laterals		\$2,898
Total Scheduled Replacements		<b>\$2,898</b>

Item	2030 - Year 7	\$ Cost
5 Wheel stops, concrete		\$2,388
24 Recalking around windows		\$5,158
Total Scheduled Replacements		<b>\$7,546</b>

Item	2031 - Year 8	\$ Cost
Total Scheduled Replacements		<b>\$0</b>

Item	2032 - Year 9	\$ Cost
4 Domestic water laterals		\$1,583
Total Scheduled Replacements		<b>\$1,583</b>

Item	2033 - Year 10	\$ Cost
Total Scheduled Replacements		<b>\$0</b>

Item	2034 - Year 11	\$ Cost
16	Crawl space skirting perimeter, composite plank	\$7,526
23	Exterior lighting, decorative sconce at unit entries	\$1,451
Total Scheduled Replacements		<b>\$8,977</b>

Item	2035 - Year 12	\$ Cost
Total Scheduled Replacements		<b>\$0</b>

Item	2036 - Year 13	\$ Cost
1	Parking Lot & Driveway, coarse gravel	\$9,496
Total Scheduled Replacements		<b>\$9,496</b>

Item	2037 - Year 14	\$ Cost
Total Scheduled Replacements		<b>\$0</b>

Item	2038 - Year 15	\$ Cost
10	Roofing, asphalt shingles	\$25,714
11	Roof ridge vent	\$529
12	Soffit and trim, vinyl	\$2,995
13	Gutters, 5" aluminum, front and rear	\$1,089
14	Downspouts, aluminum, 2 front and 2 rear	\$799
Total Scheduled Replacements		<b>\$31,126</b>

Item	2039 - Year 16	\$ Cost
Total Scheduled Replacements		<b>\$0</b>

Item	2040 - Year 17	\$ Cost
Total Scheduled Replacements		<b>\$0</b>

Item	2041 - Year 18	\$ Cost
Total Scheduled Replacements		<b>\$0</b>

Item	2042 - Year 19	\$ Cost
24	Recalking around windows	\$5,648
Total Scheduled Replacements		<b>\$5,648</b>

Item	2043 - Year 20	\$ Cost
15	Siding and trim, vinyl, standard clapboard	\$59,447
Total Scheduled Replacements		<b>\$59,447</b>

Item	2044 - Year 21	\$ Cost
Total Scheduled Replacements		\$0

Item	2045 - Year 22	\$ Cost
Total Scheduled Replacements		\$0

Item	2046 - Year 23	\$ Cost
Total Scheduled Replacements		\$0

Item	2047 - Year 24	\$ Cost
Total Scheduled Replacements		\$0

Item	2048 - Year 25	\$ Cost
19	Window, double hung, vinyl replacement	\$69,988
Total Scheduled Replacements		\$69,988

Item	2049 - Year 26	\$ Cost
2	Raised walkways, Synthetic decking, PTL structure	\$3,970
23	Exterior lighting, decorative sconce unit entries	\$1,567
Total Scheduled Replacements		\$5,537

Item	2050 - Year 27	\$ Cost
5	Wheel stops, concrete	\$2,945
Total Scheduled Replacements		\$2,945

Item	2051 - Year 28	\$ Cost
Total Scheduled Replacements		\$0

Item	2052 - Year 29	\$ Cost
Total Scheduled Replacements		\$0

Item	2053 - Year 30	\$ Cost
Total Scheduled Replacements		\$0

## SECTION D - CONDITION ASSESSMENT

### GENERAL COMMENTS

VVA conducted an on-site visual survey of the Your Condominium condominium's common elements in September 2023. The purpose and scope of this survey is to assess the useful life and overall observable condition of the Reserve Study components.

Your Condominium is in generally good condition for a residential condominium. A review of the Replacement Reserve Inventory will show that we are anticipating most of the components achieving their normal economic lives within the Study Period, except for the front porch/stairway, and rear fire escape which were replaced in 2023.



The following comments pertain to the larger, more significant components in the Replacement Reserve Inventory and to those items that are unique or deserving of attention because of their condition or the manner in which they have been treated in the Replacement Reserve Analysis or Inventory.

**IMPORTANT NOTE:** This conditions assessment is based upon the Reserve Analyst's visual observation of the common elements of the Association at the time of the site visit. Please note that a conditions assessment does not constitute an in-depth inspection. VVA did not conduct a structural evaluation of the front porch/stairway, rear fire escape, or pilings. Condition Assessment does not constitute, nor is it a substitute for, a professional Structural Evaluation of the buildings, amenities, or systems. Such an evaluation is beyond the Scope of this Reserve Study.

VVA strongly recommends that the Association retain the services of a Structural Engineer to conduct thorough and periodic evaluations of the buildings, balconies, and any other structural components of the buildings and amenities of the Association.

#### GENERAL CONDITION STATEMENTS

**Excellent.** 100% to 90% of Normal Economic Life expected, with no appreciable wear or defects.

**Good.** 90% to 60% of Normal Economic Life expected, minor wear or cosmetic defects found. Normal maintenance should be expected. If performed properly, normal maintenance may increase the useful life of a component. Otherwise, the component is wearing normally.

**Fair.** 60% to 30% of Normal Economic Life expected, moderate wear with defects found. Repair actions should be taken to extend the life of the component or to correct repairable defects and distress. Otherwise, the component is wearing normally.

**Marginal.** 30% to 10% of Normal Economic Life expected, with moderate to significant wear or distress found. Repair actions are expected to be cost-effective for localized issues, but normal wear and use are evident. The component is reaching the end of the Normal Economic Life.

**Poor.** 10% to 0% of Normal Economic Life expected, with significant distress and wear. Left unattended, additional damage to underlying structures is likely to occur. Further maintenance is unlikely to be cost-effective.

#### SITE ITEMS

**Gravel Parking Lot & Driveway.** The Association is responsible for the parking area at the rear of the buildings and the driveway between the buildings, connecting the parking area to 139th Street. The driveway is a shared responsibility with the adjacent El Gwend East condominium. There are also off-street public parking spaces along 139<sup>th</sup> Street, in front of the buildings but these are maintained by the City, County, or other governmental entities. In general, the Association's parking area and driveway is in marginal condition.

There is vegetation encroaching into the parking area. The encroaching vegetation should be removed, and the parking area and driveway need to be refurbished by year 13. The concrete wheel stops are in poor condition and should be replaced by year 7.





## EXTERIOR ITEMS

**Building Roofing.** The Association building roofs are asphalt shingle that from a distance appear to be in good condition. Access to the roof was not provided at the time of inspection.

The roofing was reportedly replaced in 2006-07, with 30-year warranty shingles. There was an observable ridge venting of the attic space (perforated soffit). Having a vented attic space reduces heat to build up under the roof and may extend its economic life.

Asphalt shingle roofs can have a useful life of 20 to 50 years depending on the weight and quality of the shingle. Weathered, curled, and missing shingles are all indications that the shingles may be nearing the end of their useful life.

Annual inspections of the roof and pipe flashing and boots are recommended, with cleaning, repair, and mitigation of any vegetation performed as needed. Access, inspection, and repair work should be performed by contractors and personnel with the appropriate access equipment who are experienced in the types of roofing used for the facility.

**Gutters and Downspouts.** The building has aluminum gutters and downspouts, but these are limited to the front edge and partial side returns where the porches are covered by the roof. The gutters and downspouts appear to be in good condition from a distance. Access to the roof level was not provided at the time of inspection. It is assumed these were replaced with the roofing in 2006-07.

The two downspouts at the front of the building are routed to discharge directly onto the public sidewalks fronting the street. This will create a liability to the Association due to ice slicks forming on the public sidewalks creating a public hazard.

There are no gutters or downspouts along the rear edge of the roof. As a result, water drains directly onto the rear fire escapes. This will create a liability to the Association due to ice slicks forming on a means of egress and is not allowed by building codes.



There is no gutter and downspout system along the sides or rear of the building. As a result, the roof rainwater falls directly onto the ground around the perimeter of the building. The current grading around the building perimeter is not sloped away from the building so much of the rainwater from the roof, driveway and parking area drain into the crawl space below the building and collects. This water ponding intermittently soaks some of the structural foundation pilings and may significantly increase their decay and decrease their integrity.

A gutter and downspout system are designed to remove rainwater from the area of the building's roof, and direct water away from foundations, and protect the exterior surfaces from water damage. Ideally, gutters should be installed to run the full length of all drip edges of the building's roof.



It is important to inspect the function of the gutters during heavy rain events to identify any deficiencies. It may be necessary to periodically adjust the slope of sections of the gutter, repair connections, replace hangers, and install shrouds to the gutter system.

It is recommended that all gutters be cleaned at least twice each year. Where buildings are located in areas where there is significant tree cover or other potential sources of air-borne debris, consideration should be given to installing a gutter debris shield that will let water into the gutters but will filter out leaves, twigs, and other debris.

Downspouts should be securely attached to the sides of the structure. Any broken straps should be replaced. Long straight runs should have an elbow at the bottom. Splash blocks should be installed to disperse the water flowing from the downspouts. It is also recommended that the discharge outlets for downspouts be at least ten feet away from any building foundations or structures. The area of the outlet should be inspected to promote run-off in the desired direction.

**Siding and Trim.** The building's exterior is clad in vinyl siding that is in good condition. The siding was reported to have been replaced in 2007. Some minor bowing in the siding was observed in a couple of places and there is microbial growth on the siding in several places.

The date of the building's construction means it is possible that it was originally clad in siding containing asbestos. If that was the case, the asbestos siding may have been removed when the building re-sided or it could have just been covered over. Asbestos testing is beyond the scope of this study.

Vinyl Siding and Trim typically have a normal economic life of 30 to 40 years, depending on type and quality. These materials are subject to damage from physical impacts, heat, and solar exposure and these can reduce the material's economic life. The coatings and finishes begin to weather, chalk, and show their age over time. For these reasons, we have modeled for the replacement of the siding and trim every 35 years.

**Skirting.** There is skirting that runs vertically from the ground level outside the buildings to the bottoms of the building walls. It is constructed from 3/4" wood material, which is either attached to the retaining walls or a wood stringer, with 1" gaps between each piece. Skirting has a stained finish. The skirting is generally in good condition.



Periodic repair and re-staining of the skirting should be coordinated with the annual operating budget. When refurbishing the skirting, we recommend the Association consider using materials that are less prone to deterioration than wood in a salt air environment. As part of normal maintenance, we recommend the following:

- Annual inspection
- Repair or replacement of loose, damaged, or missing components
- Periodic cleaning
- Periodic repainting

**Windows and Doors.** The Association is currently responsible for all the windows of the facility. The entry doors and patio sliding doors are the responsibility of the unit owners – as such the Association should set an architectural standard for all doors. Windows and doors play an integral part in a facility's overall appearance, comfort, efficiency, and energy use. The quality of the installed units and the care taken in their installation and maintenance are major factors in their effectiveness and useful life.

**Entry Doors.** The entry doors are generally in fair condition. There is significant deterioration of the finishes on the door frames and thresholds. These units can have a useful life of 25 years. The location of the building in a salt air environment may shorten the useful life of the doors.

**Sliding Glass Doors.** The sliding glass doors are generally in fair condition. There is significant deterioration of the finishes on the door frames and thresholds. These units can have a useful life of 30 years.

**Windows.** The windows were reported to have been replaced in 2007. The windows are generally in fair condition. It was not known at the time of this report what the windows warranty is, but it is assumed there is some warranty. These units can have a useful life of 50 to 40 years or more but since these are assumed to have a warranty, we've used a normal economic life of 40 years.

There is significant deterioration of the paint finishes on the aluminum sill trim at window frames on the west side of the building due to much higher solar exposure than the east. The caulking around the window frames will need to be replaced and is scheduled for year 7. However, the west side may need it sooner due to the much higher solar exposure.



The air conditioning equipment / package unit on the west side of the building appears to be non-compliant with Ocean City code which requires that it be elevated above the flood level.

The location of the building in a salt air environment may shorten the useful life of all of these building components.

In general, we recommend coordinating the replacement of these units with other exterior work, such as siding and roof replacements. The weather tightness of the building envelope often requires transitional flashing and caulking that should be performed in coordination with each other. Warranties and advantages in 'economy of scale' can often result in lower overall replacement costs and results that are more reliable. Lastly, coordinated replacements offer the opportunity to correct initial construction defects and improve the effectiveness of details with improved construction techniques and materials.

For Associations where the unit owner is responsible for the replacement of their windows and exterior doors, we recommend for the Association consider offering the unit owners an option to have their replacements performed in conjunction with the Association's work. This can be performed either by a separate agreement between the unit owner and the Association's selected contractor or by back-charging the unit owner.

**Front Porch/Stairway and Rear Fire Escape.** The Association maintains the buildings wooden decks/porches, fire escapes and stairs. They were replaced in 2023. All the deck structure and railings are constructed of pressure-treated lumber. The decking are a composite material. The railing systems are vinyl.

**Treatment of Exterior Wood Framing.** These wood structures are new; however, it appears that the pressure treated lumber where it is exposed to the elements has not yet been treated with a sealant. Exterior wood structures expand and contract with changes in temperature and moisture levels within the wood, leading to cracks. Untreated, these cracks will expand and can lead to warping and the development of rot within the wood. It will be important to treat the limber soon to achieve a maximum useful lifespan.

In a salt air environment, like the one where these structures are located, the metal fasteners are subject to accelerated corrosion and deterioration and may result in shortened useful lives for these components.

Wooden deck structures typically have a useful life of up to 45 years, composite decking typically has a useful life of up to 35 years, wood and composite stairs typically have a useful life of 20 years and vinyl railings typically have a useful life of up to 20-30 years. This study assumes that the entire decking system will be replaced at one time, so all of these components were considered outside the 30-year study period. Although the vinyl railing system and metal fasteners will need periodic maintenance and selective repair before this, the funds needed for this should be provided within the annual operating budget.

The common defects found in exterior wood structures are:

- **Cracks.** Cracks develop as a result of exposure to repeated wetting and drying cycles. When the cracking becomes excessive it can allow water to penetrate the wood and lead to rot and if it occurs on horizontal surfaces, it can cause warping and result in tripping hazards.
- **Warping.** Exposure to repeated drying cycles may cause exterior wood components to warp and pull fasteners loose. When the warping becomes excessive, the components may become loose or deformed and if it occurs on horizontal surfaces, it can result in tripping hazards.
- **Rot.** Decay or deterioration as a result of bacterial or fungal action, which destroys the integrity of the wood components. We recommend the Association implement an annual inspection program. All areas with moderate cracking or rot should be replaced. Areas covered with mold should be cleaned and treated. We also recommend power washing and the application of a wood sealer with UV protection every two to three years.

Installation of carpet or other water trapping coverings should be prohibited.

When installing new decking, the installation of a self-healing flashing membrane is recommended along the top and ends of all wooden horizontal structural members. Synthetic decking and railing systems should also be considered. While engineered lumber is one-third more expensive than pressure-treated wood, it offers the advantages of not splitting, cracking, creating splinters, or rotting. As a result, its rated service life is approximately 50% longer than the service life of pressure-treated wood.

Please note that your State or local jurisdiction may have specific requirements for deck and balcony inspections, such as the recently enacted Maryland HB 947 (Jonathan's Law). This level of inspection is beyond the scope of work for this Reserve Study.

## **BUILDING SYSTEMS**

**Building Piping.** The building has various piping systems which service common areas and the units. It is not known how much of the common building piping has been repaired or replaced. During our site visit, no cracked or leaking pipes were noted.

Asbestos was commonly used in some types of pipes and as insulation on pipes and ductwork through the late 1970's. Based on the age of the building it is possible there is asbestos in the building. However, originally built as a 3-season building, it is unlikely any of the piping was insulated. Testing for asbestos is beyond the scope of this study.

- **Domestic Water.** The piping originates from the water connection and is distributed throughout the building via a system of risers that feed a network of lateral piping in each unit.
- **Sanitary Sewer and Drain Vent.** Sanitary sewer piping includes a network of vertical drain and vent stacks that are connected to the plumbing fixtures in each unit and convey wastewater from the units to the municipal sanitary sewer system.
- **Natural Gas Piping.** Natural gas piping is normally maintained by the utility company. We have not included any natural gas piping in this study. Natural gas piping was not reviewed during our site visit.

Piping systems have a very long service life and replacement of entire piping systems is rarely undertaken because of the nature of the work involved in doing replacements. Piping replacement includes channeling walls and chases for access, patching, and replacement of finishes. New technologies and systems have been developed that allow for the refurbishment/restoration of piping systems in lieu of complete piping system replacements. They are less expensive and disruptive than full system replacement. Ace Duraflo and Curaflo are two of the companies that offer alternative methods for dealing with pipe system failures. However, VVA does not endorse any specific process or company.

Water quality, in particular the Ph of the water, is critical to the longevity of these systems, and typically, the pressurized water supply lines are the most problematic. The building is on a public water supply.

For budgeting purposes, an allowance every 35 years is included in this study for re-piping work. Please note that the timeframe for re-piping a facility can vary widely, and this work has a high degree of variability depending on the layout of the facility and accessibility to the piping components, so the estimation of the remaining economic life is highly speculative.

To gain a better understanding of the condition of this facility's pipes and water supply lines, we recommend having an expert evaluation of the piping performed. This evaluation should provide an estimation of the remaining useful life of the piping systems, the condition of the water supply, and recommendations for replacement to maximize the remaining useful life of this facility's piping systems.

**Building Electrical Service.** Electric service enters the buildings via vaults which are maintained by the utility company located on the west sides of the buildings. The utility service cabling and components are considered long-life installations, and unless otherwise noted, are excluded from this study.

**Electrical Distribution Panels/Meters.** The building's main power switch is located adjacent to the utility company vault, along with the primary disconnects, relays, fuses, meters, and circuit breakers for the building. These are the Association's responsibilities. At this point, the power is split into multiple circuits that are each metered and serve the individual units and various common electrical systems in the building.

The building has numerous secondary electrical distribution panels and switches located throughout the facility that split the power feed into smaller circuits and provide control and protective circuit breakers for each circuit. The panels serving the common areas and systems are the Associations responsibility.

The electrical systems of the buildings are reported to be operating normally.

The electrical distribution equipment dates to the original construction of the building and has a rated service life of 50 years or more. Aluminum wiring was in use at the time of original construction, so there may be some aluminum wiring within the units. This is a known fire hazard, and any terminations of aluminum wiring should be "pig-tailed" to copper wiring before connection to outlets, switches, etc.

As the equipment ages, obtaining replacement parts can be expected to become more difficult. When parts are no longer available, the Association will have to replace some of the existing equipment. The replacement will have to be performed on an incremental basis. Therefore, we have included funding in the Reserve Analysis for distribution panel replacement on an incremental basis.

The system should be protected from water damage, overloading, and modifications to ensure safe, reliable service.

Periodic inspection of the busses and tightening of all connections is recommended every three to five years. Insurance policies in some cases may have specific requirements regarding the tightening of electrical connections.

It is also recommended that outlets, sockets, switches, and minor fixtures be replaced at a maximum of every 30 years. Replacement of these smaller components, unless otherwise identified, is considered incidental to refurbishment, or is considered a Valuation Exclusion.

This Condition Assessment is based upon our visual survey of the property. The sole purpose of the visual survey was an evaluation of the common and limited common elements of the property to ascertain their remaining useful life and replacement cost. Our evaluation assumed that all components met building code requirements in force at the time of construction. Our visual survey was conducted with care by experienced persons, but no warranty or guarantee is expressed or implied.

End of Condition Assessment

## SECTION E - APPENDIX

### OVERVIEW, STANDARD TERMS, AND DEFINITIONS

#### 1. COMMON INTEREST DEVELOPMENTS - AN OVERVIEW

Over the past 40 years, the responsibility for many services, facilities and infrastructure around our homes has shifted from the local government to Community Associations. Thirty years ago, a typical new town house abutted a public street on the front and a public alley on the rear. Open space was provided by a nearby public park, and recreational facilities were purchased ala carte from privately-owned country clubs, swim clubs, tennis clubs, and gymnasiums. Today, 60% of all new residential construction, i.e., townhouses, single-family homes, condominiums, and cooperatives, is in Common Interest Developments (CID). In a CID, a homeowner is bound to a Community Association that owns, maintains, and is responsible for periodic replacements of various components that may include the roads, curbs, sidewalks, playgrounds, streetlights, recreational facilities, and other community facilities and infrastructure.

The growth of Community Associations has been explosive. In 1965, there were only approximately 500 Community Associations in the United States. According to the 1990 U.S. Census, there were roughly 130,000 Community Associations. The Community Associations Institute (CAI), a national trade association, estimates in 2020 that there were more than 350,000 communities with over 75 million residents.

The shift of responsibility for billions of dollars of community facilities and infrastructure from the local government and private sector to Community Associations has generated new and unanticipated issues. Although Community Associations have succeeded in solving many short-term issues, many Associations still fail to properly plan for the significant expenses of replacing community facilities and infrastructure components. When inadequate Replacement Reserve funding results in less than timely replacements of failing components, homeowners are invariably exposed to the burden of special assessments, major increases in Association fees, and often a decline in property values.

#### 2. REPLACEMENT RESERVE STUDY

The purpose of a Replacement Reserve Study is to provide the Association with an inventory of the common community facilities and infrastructure components that require periodic major repair or replacement, a general view of the physical condition of these components, and an effective financial plan to fund projected periodic replacements or major repairs. The Replacement Reserve Study consists of the following:

**Replacement Reserve Study Introduction.** The introduction provides a description of the property, an Executive Summary of the Funding Recommendations, Level of Reserve Study service, and a statement of the Purpose of the Replacement Reserve Study. It also lists documents and site evaluations upon which the Replacement Reserve Study is based and provides the Credentials of the Reserve Analyst.

**Section A Replacement Reserve Analysis.** Many components that are owned by the Association have a limited life and require periodic replacement. Therefore, it is essential that the Association have a financial plan that provides funding for the timely replacement of these components in order to protect the safety, appearance, and ultimately, the property value of the homes in the Association. In conformance with National Reserve Study Standards, a Replacement Reserve Analysis evaluates the current funding of Replacement Reserves as reported by the Association and recommends annual funding of Replacement Reserves using the Threshold Cash Flow Method. See definition below.

**Section B Replacement Reserve Inventory.** The Replacement Reserve Inventory lists the commonly owned components within the Association that require periodic replacement using funding from Replacement Reserves. Replacement Reserve Inventory includes estimates of the Normal Economic Life (NEL) and the Remaining Economic Life (REL) for those components whose replacement is scheduled for funding from Replacement Reserves. The Replacement Reserve Inventory also provides information about those components which are excluded from the Replacement Reserve Inventory and whose replacement is not scheduled for funding from Replacement Reserves.

**Section C Projected Annual Replacements.** The Calendar of Projected Annual Replacements provides a year-by-year listing of the Projected Replacements based on the data in the Replacement Reserve Inventory.

**Section D Condition Assessment.** The observed condition of the major items listed in the Replacement Reserve Inventory are discussed in more detail. The Condition Assessment includes a narrative and photographs that document conditions at the property observed at the time of our visual evaluation.

Appendix E is provided as an attachment to the Replacement Reserve Study. Additional attachments may include supplemental photographs to document conditions at the property and additional information specific to the property cited in the Conditions Assessment (i.e. Consumer Product Safety Commission, Handbook for Public Playground Safety, information on segmental retaining walls, manufacturer recommendations for asphalt shingles or siding, etc.).

### 3. METHODS OF ANALYSIS

The Replacement Reserve industry generally recognizes two different methods of accounting for Replacement Reserve Analysis, the Cash Flow Method and the Component Method. Due to the difference in accounting methodologies, these methods lead to different calculated values for the Recommended Annual Funding to the Reserves. A brief description is included below:

**Cash Flow Threshold Method.** This Reserve Study uses the Threshold Cash Flow Method, sometimes referred to as the "Pooling Method." It calculates the minimum constant annual funding to reserves (Minimum Annual Deposit) required to meet projected expenditures without allowing total reserves on hand to fall below the predetermined Minimum Balance, or Threshold, in any year.

**Component Method.** The Component Method of calculating Reserve Funding needs is based upon an older mathematical model. Instead of calculating total funding based on yearly funding requirements, the Component method treats each component as its own "line item" budget that can only be used for that component. As a result, the Component Method is typically more conservative requiring greater Annual Reserve Funding levels.

### 4. REPLACEMENT RESERVE STUDY DATA

**Identification of Reserve Components.** The Reserve Analyst has only two methods of identifying Reserve Components: (1) information provided by the Association and (2) observations made at the site. It is important that the Reserve Analyst be provided with all available information detailing the components owned by the Association. It is our policy to request such information prior to bidding on a project and to meet with the parties responsible for maintaining the Association after acceptance of our proposal. Upon submission of the initial Study, the Study should be reviewed by the Board of Directors

and the individuals responsible for maintaining the Association. We depend upon the Association for correct information, documentation, and drawings. We also look to the Association representative to help us fashion the Reserve Study so that it reflects what the Association hopes to accomplish in the coming years.

**Unit Costs.** Unit costs are developed using nationally published standards and estimating guides and are adjusted by state or region. In some instances, recent data received in the course of our work is used to modify these figures. Contractor proposals or actual cost experience may be available as part of the Association records. This is useful information, which should be incorporated into your report. Please bring any such available data to our attention, preferably before the report commences.

**Replacement vs. Repair and Maintenance.** A Replacement Reserve Study addresses the required funding for Capital Replacement Expenditures. This should not be confused with operational costs or costs of regular repairs or maintenance.

## 5. DEFINITIONS

**Adjusted Cash Flow Analysis.** Cash flow analysis adjusted to take into account annual cost increases due to inflation and interest earned on invested reserves. In this method, the annual contribution is assumed to grow annually at the inflation rate.

**Annual Deposit if Reserves Were Fully Funded.** Shown on the Summary Sheet A1 in the Component Method summary, this would be the amount of the Annual Deposit needed if the Reserves Currently on Deposit were equal to the Total Current Objective.

**Cash Flow Analysis.** See Cash Flow Threshold Method, above.

**Component Analysis.** See Component Method, above.

**Contingency.** An allowance for unexpected requirements. The “Threshold” used in the Cash Flow Method is a predetermined minimum balance that serves the same purpose as a “contingency”. However, IRS Guidelines do not allow for a “contingency” line item in the inventory. Therefore, it is built into the mathematical model as a “Threshold”.

**Cyclic Replacement Item.** A component item that typically begins to fail after an initial period (Estimated Initial Replacement), but which will be replaced in increments over a number of years (the Estimated Replacement Cycle). The Reserve Analysis program divides the number of years in the Estimated Replacement Cycle into five equal increments. It then allocates the Estimated Replacement Cost equally over those five increments. (As distinguished from Normal Replacement Items, see below).

**Estimated Normal Economic Life (NEL).** Used in the Normal Replacement Schedules. This represents the industry average number of years that a new item should be expected to last until it must be replaced. This figure is sometimes modified by climate, region, or original construction conditions.

**Estimated Remaining Economic Life (REL).** Used in the Normal Replacement Schedules. Number of years until the item is expected to need replacement. Normally, this number would be considered to be the difference between the Estimated Economic Life and the age of the item. However, this number must be modified to reflect maintenance practice, climate, original construction and quality, or other conditions. For the purpose of this report, this number is determined by the Reserve Analyst based on the present condition of the item relative to the actual age.

**Minimum Annual Deposit.** Shown on the Summary Sheet A1. The calculated requirement for annual contribution to reserves as calculated by the Cash Flow Method (see above).

**Minimum Balance.** Otherwise referred to as the Threshold, this amount is used in the Cash Flow Threshold Method only. Normally derived using the average annual expenditure over the study period, this is the minimum amount held in reserves in the Peak Year.

**National Reserve Study Standards.** A set of Standards developed by the Community Associations Institute in 1995 (and updated in 2017) which establishes the accepted methods of Reserve Calculation and stipulates what data must be included in the Reserve Study for each component listed in the inventory. These Standards can be found at CAIonline.org.

**Normal Replacement Item.** A component of the property that, after an expected economic life, is replaced in its entirety. (As distinguished from Cyclic Replacement Items, see above.)

**Number of Years of the Study.** The numbers of years into the future for which expenditures are projected and reserve levels calculated. This number should be large enough to include the projected replacement of every item on the schedule, at least once. The Reserve Study must cover a minimum of 20 years to comply with the National Reserve Study Standards. However, your study covers a 30-year period.

**Peak Year.** In the Cash Flow Threshold Method, a year in which the reserves on hand are projected to fall to the established threshold level. See Minimum Balance, above.

**Reserves Currently on Deposit.** Shown on the Summary Sheet A1, this is the amount of accumulated reserves as reported by the Association in the current year.

**Replacement Reserve Study.** An analysis of all the components of the common property of an Association for which replacement should be anticipated within the economic life of the property as a whole. The analysis involves estimation for each component of its Estimated Replacement Cost, Normal Economic Life, and Remaining Economic Life. The objective of the study is to calculate a Recommended Annual Funding to the Association's Replacement Reserve Fund.

**Total Replacement Cost.** Shown on the Summary Sheet A1, this is the total of the Estimated Replacement Costs for all items on the schedule if they were to be replaced once.

**Unit Replacement Cost.** Estimated replacement cost for a single unit of a given item on the schedule.

**Unit (of Measure).** Non-standard abbreviations are defined on the page of the Replacement Reserve Inventory where the item appears. The following standard abbreviations are used in this report:

<b>ea</b> each	<b>ls</b> lump sum	<b>sy</b> square yard
<b>ft</b> or <b>lf</b> linear foot	<b>pr</b> pair	<b>cy</b> cubic yard
<b>sf</b> square foot		