

LEVEL 1 REPLACEMENT RESERVE REPORT FY 2024 CAPE ST. CLAIRE IMPROVEMENT ASSOCIATION



Community Management by:

CAPE ST. CLAIRE IMPROVEMENT ASSOCIATION

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

MillerDodson 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 managing agent and/or Board of Directors. 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 contribution will be deposited at the end of each month.

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's, National 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 Community Manager 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.

To aid in the understanding of this report and its concepts and practices, on our website, we have developed [videos](#) addressing frequently asked topics. In addition, there are posted [links](#) covering a variety of subjects under the resources page of our web site at mdareserves.com.

Purpose. The purpose of this Replacement Reserve Study is to provide Cape St. Claire Improvement Association (hereinafter called the Association) with an inventory of the common community 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 manner in which 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 on Page A1.

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

- The Request for Proposal submitted and executed by the Association.
- Miller+Dodson performed a visual evaluation on July 17, 2023 to determine a 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, Miller+Dodson uses the Producers Price Index (PPI), which gauges inflation in manufacturing and construction. Please see page A5 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, Miller+Dodson can provide scanning services.

Acknowledgment. Miller+Dodson Associates would like to acknowledge the assistance and input of Frank Tewey, Town Manager who provided very helpful insight into the current operations of the property.

Analyst's Credentials. Mr. Craig Amaral holds an Associate's Degree in Architectural and Construction Technology from Montgomery College in Rockville, Maryland, with continuing courses in Bachelor of Science programs in Physical Science at the University of Maryland College Park, Maryland, and Electrical Engineering at Capitol College in Laurel, Maryland. In addition, he has completed several certificate programs in Managing Government Contracts from the Masters Institute for Government Contracting. Craig has over 25 years of experience as a construction management consultant, with 40 years of experience as an Executive Project Manager, Project Manager, Estimator, and Construction Inspector. He has served as Corporate Vice President for a mechanical prime contractor and Principle in his own construction consulting firm. Mr. Amaral is currently a reserve analyst for Miller+Dodson, serving the greater Baltimore/Washington Metropolitan area.

Respectfully Submitted,

millerdodson
CAPITAL RESERVE CONSULTANTS

Craig Amaral
Craig Amaral

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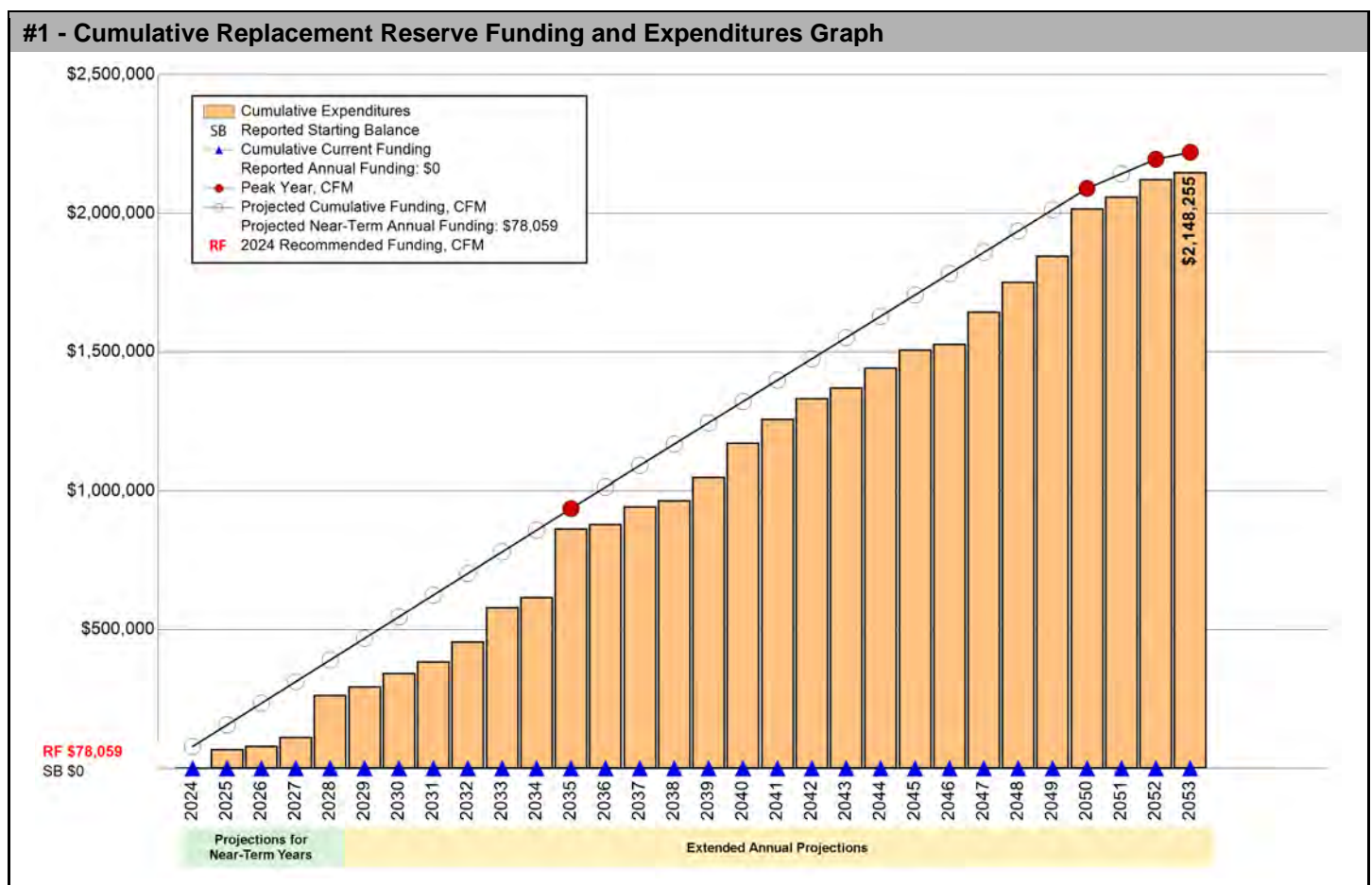
SECTION A - FINANCIAL ANALYSIS

The Cape St. Claire Improvement Association Replacement Reserve Analysis uses the Cash Flow Method (CFM) to calculate Replacement Reserve funding for the periodic replacement of the 197 Projected Replacements identified in the Replacement Reserve Inventory.

\$78,059 **RECOMMENDED REPLACEMENT RESERVE FUNDING FOR THE STUDY YEAR, 2024**
\$2.83 Per unit (average), minimum monthly funding of Replacement Reserves

We recommend the Association adopt a Replacement Reserve Funding Plan based on the annual funding recommendation above. Inflation adjusted funding for subsequent years is shown on Page A.5.

Cape St. Claire Improvement Association reports a Starting Balance of \$0 and Annual Funding totaling \$0, which is inadequate to fund projected replacements starting in 2024. See Page A.3 for a more detailed evaluation.



The significant increase in the Recommended Annual Reserve Funding shown above is not unusual for community associations for whom this is their first professional Replacement Reserve Study. We recommend that the Association increase its Reserve Funding level as soon as possible. Given the high rates of inflation in today's construction industry, the longer that the Association delays in adequately funding its Reserves, the harder it will become to make up for the underfunding. Furthermore, delaying this increase will place an unfair financial burden on long-term and future owners, and may adversely affect property values. (See Supplemental Notes on Maryland Law HB-107 on Page A.6.)

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

REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION

The Cape St. Claire Improvement Association Replacement Reserve Analysis calculations of recommended funding of Replacement Reserves by the Cash Flow Method (CFM) and the evaluation of the Current Funding are based upon the same Study Year, Study Period, Beginning Balance, Replacement Reserve Inventory and Level of Service.

2024 STUDY YEAR

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

30 Years STUDY PERIOD

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

\$0 STARTING BALANCE

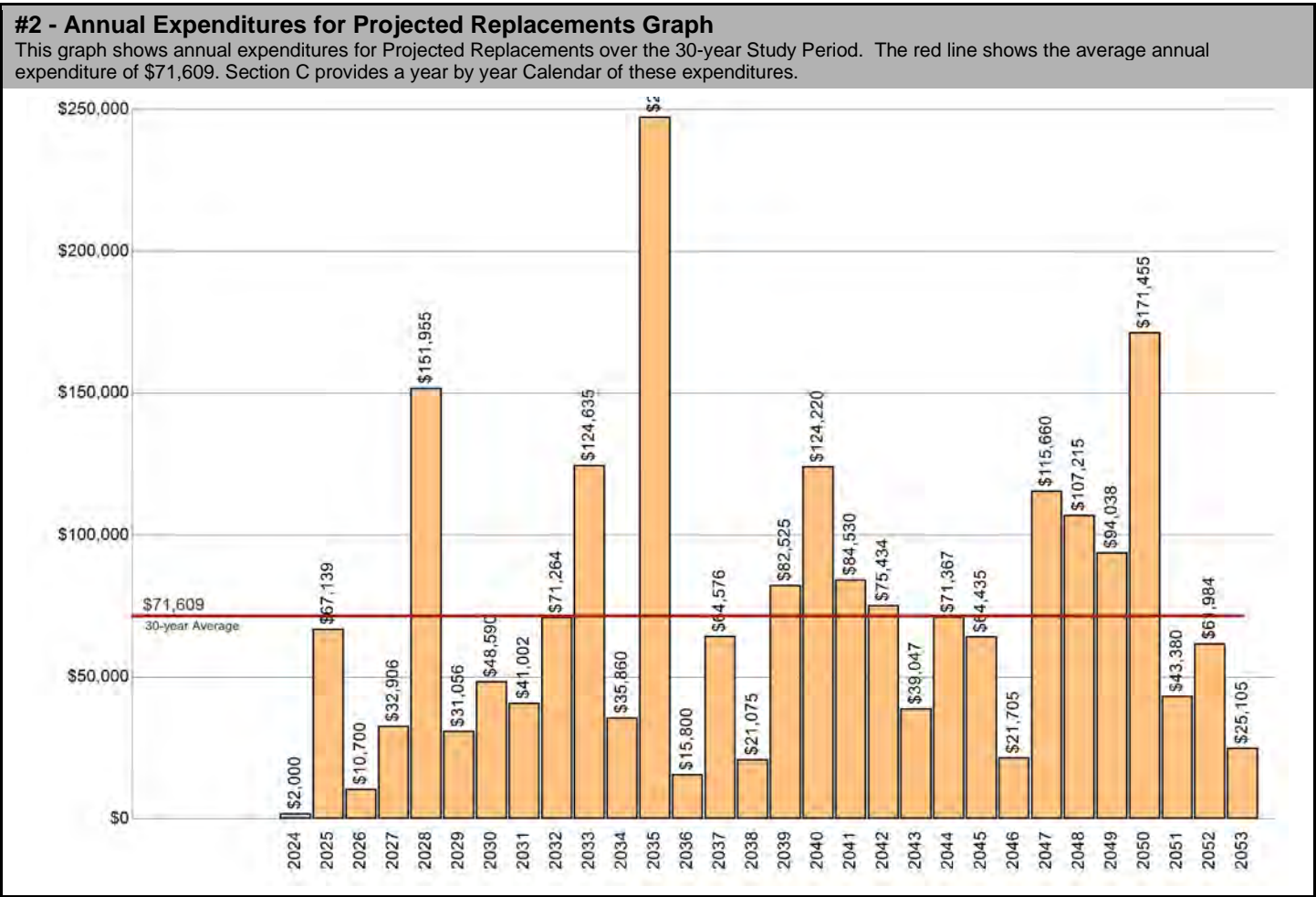
The Association reports Replacement Reserves on Deposit totaling \$0 at the start of the Study Year.

Level One LEVEL OF SERVICE

The Replacement Reserve Inventory has been developed in compliance with the National Reserve Study Standards for a Level One Study, as defined by the Community Associations Institute (CAI).

\$2,148,255 REPLACEMENT RESERVE INVENTORY - PROJECTED REPLACEMENTS

The Cape St. Claire Improvement Association Replacement Reserve Inventory identifies 197 items that will require periodic replacement, that are to be funded from Replacement Reserves. We estimate the cost of these replacements will be \$2,148,255 over the 30-year Study Period. The Projected Replacements are divided into 5 major categories starting on Page B.3. Pages B.1-B.2 provide detailed information on the Replacement Reserve Inventory.



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 on Page A.4 and A.5. The Projected Replacements listed on Page C.2 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. Inflation Adjusted Funding is discussed on Page A.5.

UPDATING OF THE REPLACEMENT RESERVE STUDY

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 the Inflation Adjusted Funding of Replacement Reserves on Page A.5.

ANNUAL EXPENDITURES AND CURRENT FUNDING

The annual expenditures that comprise the \$2,148,255 of Projected Expenditures over the 30-year Study Period and the impact of the Association continuing to fund Replacement Reserves at the current level are detailed in Table 3.

#3 - Table of Annual Expenditures and Current Funding Data - Years 1 through 30										
Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Starting Balance										
Projected Replacements	(\$2,000)	(\$67,139)	(\$10,700)	(\$32,906)	(\$151,955)	(\$31,056)	(\$48,590)	(\$41,002)	(\$71,264)	(\$124,635)
Annual Deposit										
End of Year Balance	(\$2,000)	(\$69,139)	(\$79,839)	(\$112,745)	(\$264,700)	(\$295,756)	(\$344,346)	(\$385,348)	(\$456,612)	(\$581,247)
Cumulative Expenditures	(\$2,000)	(\$69,139)	(\$79,839)	(\$112,745)	(\$264,700)	(\$295,756)	(\$344,346)	(\$385,348)	(\$456,612)	(\$581,247)
Cumulative Receipts										
Year	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Projected Replacements	(\$35,860)	(\$247,600)	(\$15,800)	(\$64,576)	(\$21,075)	(\$82,525)	(\$124,220)	(\$84,530)	(\$75,434)	(\$39,047)
Annual Deposit										
End of Year Balance	(\$617,107)	(\$864,706)	(\$880,506)	(\$945,082)	(\$966,157)	(\$1,048,682)	(\$1,172,901)	(\$1,257,431)	(\$1,332,865)	(\$1,371,912)
Cumulative Expenditures	(\$617,107)	(\$864,706)	(\$880,506)	(\$945,082)	(\$966,157)	(\$1,048,682)	(\$1,172,901)	(\$1,257,431)	(\$1,332,865)	(\$1,371,912)
Cumulative Receipts										
Year	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Projected Replacements	(\$71,367)	(\$64,435)	(\$21,705)	(\$115,660)	(\$107,215)	(\$94,038)	(\$171,455)	(\$43,380)	(\$61,984)	(\$25,105)
Annual Deposit										
End of Year Balance	(\$1,443,279)	(\$1,507,714)	(\$1,529,419)	(\$1,645,079)	(\$1,752,294)	(\$1,846,332)	(\$2,017,787)	(\$2,061,167)	(\$2,123,150)	(\$2,148,255)
Cumulative Expenditures	(\$1,443,279)	(\$1,507,714)	(\$1,529,419)	(\$1,645,079)	(\$1,752,294)	(\$1,846,332)	(\$2,017,787)	(\$2,061,167)	(\$2,123,150)	(\$2,148,255)
Cumulative Receipts										

EVALUATION OF CURRENT FUNDING

The evaluation of Current Funding (Starting Balance of \$0 & annual funding of \$0), is done in today's dollars with no adjustments for inflation or interest earned on Replacement Reserves. The evaluation assumes Replacement Reserves will only be used for the 197 Projected Replacements identified in the Replacement Reserve Inventory and that the Association will continue Annual Funding of \$0 throughout the 30-year Study Period.

Annual Funding of \$0 is approximately 0 percent of the \$78,059 recommended Annual Funding calculated by the Cash Flow Method for 2024, the Study Year.

See the Executive Summary for the Current Funding Statement.

CASH FLOW METHOD FUNDING

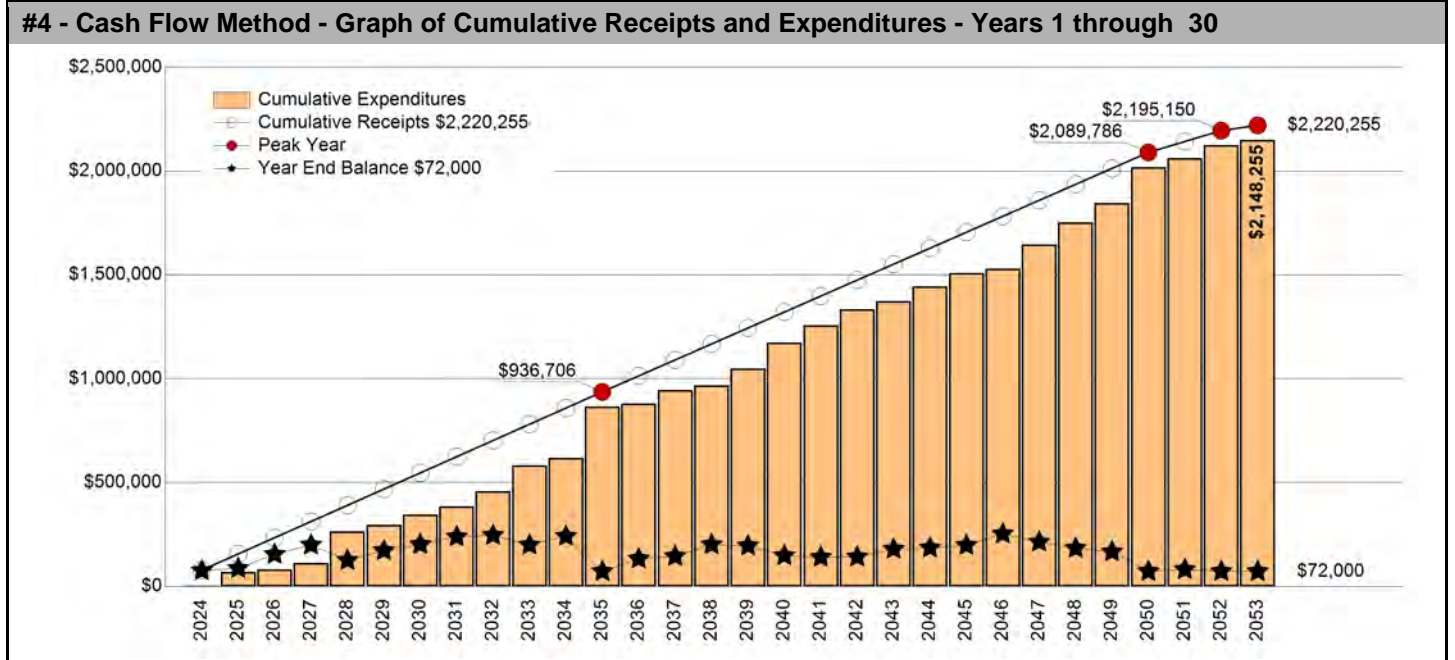
\$78,059

RECOMMENDED REPLACEMENT RESERVE FUNDING FOR 2024

\$2.83 Per unit (average), minimum monthly funding of Replacement Reserves

Recommended Replacement Reserve Funding has been calculated using the Cash Flow Method (also called the Straight Line or Threshold Method). This method calculates a constant annual funding between peaks in cumulative expenditures, while maintaining a Minimum Balance (threshold) in the Peak Years.

- Peak Years.** The First Peak Year occurs in 2035 with Replacement Reserves on Deposit dropping to the Minimum Balance after the completion of \$864,706 of replacements from 2024 to 2035. Recommended funding is projected to decline from \$78,059 in 2035 to \$76,872 in 2036. Peak Years are identified in Chart 4 and Table 5.
- Threshold (Minimum Balance).** The calculations assume a Minimum Balance of \$72,000 will always be held in reserve, which is calculated by rounding the 12-month 30-year average annual expenditure of \$71,609 as shown on Graph #2.
- Cash Flow Method Study Period.** Cash Flow Method calculates funding for \$2,148,255 of expenditures over the 30-year Study Period. It does not include funding for any projects beyond 2053 and in 2053, the end of year balance will always be the Minimum Balance.



#5 - Cash Flow Method - Table of Receipts & Expenditures - Years 1 through 30											
Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
Starting Balance											
Projected Replacements	(\$2,000)	(\$67,139)	(\$10,700)	(\$32,906)	(\$151,955)	(\$31,056)	(\$48,590)	(\$41,002)	(\$71,264)	(\$124,635)	
Annual Deposit	\$78,059	\$78,059	\$78,059	\$78,059	\$78,059	\$78,059	\$78,059	\$78,059	\$78,059	\$78,059	
End of Year Balance	\$76,059	\$86,979	\$154,338	\$199,491	\$125,594	\$172,597	\$202,066	\$239,123	\$245,918	\$199,342	
Cumulative Expenditures	(\$2,000)	(\$69,139)	(\$79,839)	(\$112,745)	(\$264,700)	(\$295,756)	(\$344,346)	(\$385,348)	(\$456,612)	(\$581,247)	
Cumulative Receipts	\$78,059	\$156,118	\$234,176	\$312,235	\$390,294	\$468,353	\$546,412	\$624,471	\$702,529	\$780,588	
Year	2034	1st Peak - 2035	2036	2037	2038	2039	2040	2041	2042	2043	
Projected Replacements	(\$35,860)	(\$247,600)	(\$15,800)	(\$64,576)	(\$21,075)	(\$82,525)	(\$124,220)	(\$84,530)	(\$75,434)	(\$39,047)	
Annual Deposit	\$78,059	\$78,059	\$76,872	\$76,872	\$76,872	\$76,872	\$76,872	\$76,872	\$76,872	\$76,872	
End of Year Balance	\$241,541	\$72,000	\$133,072	\$145,368	\$201,165	\$195,512	\$148,165	\$140,507	\$141,945	\$179,770	
Cumulative Expenditures	(\$617,107)	(\$864,706)	(\$880,506)	(\$945,082)	(\$966,157)	(\$1,048,682)	(\$1,172,901)	(\$1,257,431)	(\$1,332,865)	(\$1,371,912)	
Cumulative Receipts	\$858,647	\$936,706	\$1,013,578	\$1,090,450	\$1,167,322	\$1,244,194	\$1,321,066	\$1,397,938	\$1,474,810	\$1,551,682	
Year	2044	2045	2046	2047	2048	2049	2nd Peak - 2050	2051	3rd Peak - 2052	4th Peak - 2053	
Projected Replacements	(\$71,367)	(\$64,435)	(\$21,705)	(\$115,660)	(\$107,215)	(\$94,038)	(\$171,455)	(\$43,380)	(\$61,984)	(\$25,105)	
Annual Deposit	\$76,872	\$76,872	\$76,872	\$76,872	\$76,872	\$76,872	\$76,872	\$52,682	\$52,682	\$25,105	
End of Year Balance	\$185,275	\$197,713	\$252,880	\$214,092	\$183,749	\$166,582	\$72,000	\$81,302	\$72,000	\$72,000	
Cumulative Expenditures	(\$1,443,279)	(\$1,507,714)	(\$1,529,419)	(\$1,645,079)	(\$1,752,294)	(\$1,846,332)	(\$2,017,787)	(\$2,061,167)	(\$2,123,150)	(\$2,148,255)	
Cumulative Receipts	\$1,628,554	\$1,705,426	\$1,782,298	\$1,859,170	\$1,936,042	\$2,012,914	\$2,089,786	\$2,142,468	\$2,195,150	\$2,220,255	

INFLATION ADJUSTED FUNDING

The Cash Flow Method calculations on Page A4 have been done in today's dollars with no adjustment for inflation. At Miller+Dodson, we believe that long-term inflation forecasting is effective at demonstrating the power of compounding, not at calculating appropriate funding levels for Replacement Reserves. We have developed this proprietary model to estimate the short-term impact of inflation on Replacement Reserve funding.

\$78,059 2024 - CASH FLOW METHOD RECOMMENDED FUNDING

The 2024 Study Year calculations have been made using current replacement costs (see Page B.2), modified by the Analyst for any project specific conditions.

\$82,742 2025 - INFLATION ADJUSTED FUNDING

A new analysis calculates the 2025 funding based on three assumptions:

- Replacement Reserves on Deposit totaling \$76,059 on July 1, 2025.
- All 2024 Projected Replacements listed on Page C.2 accomplished at a cost to Replacement Reserves less than \$2,000.
- Construction Cost Inflation of 6.00 percent in 2024.

The \$82,742 inflation adjusted funding in 2025 is a 6.00 percent increase over the non-inflation adjusted funding of \$78,059.

\$87,707 2026 - INFLATION ADJUSTED FUNDING

A new analysis calculates the 2026 funding based on three assumptions:

- Replacement Reserves on Deposit totaling \$72,000 on July 1, 2026.
- All 2025 Projected Replacements listed on Page C.2 accomplished at a cost to Replacement Reserves less than \$67,163.
- Construction Cost Inflation of 6.00 percent in 2025.

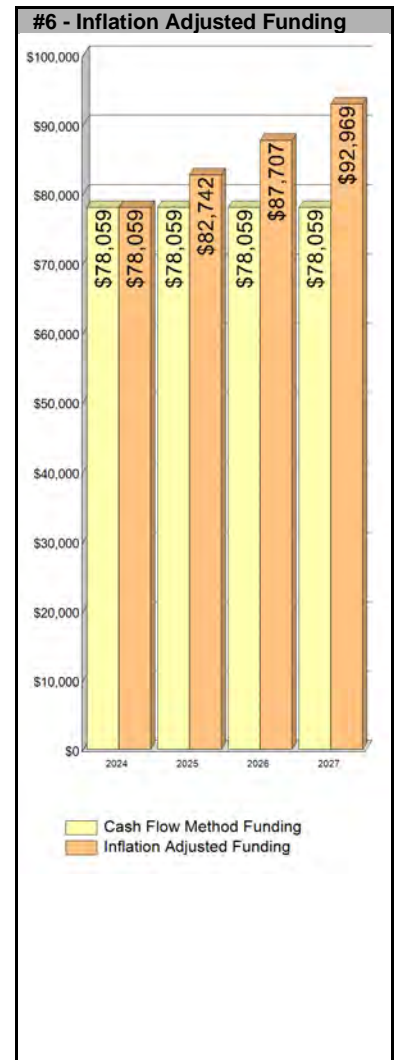
The \$87,707 inflation adjusted funding in 2026 is a 12.36 percent increase over the non-inflation adjusted funding of \$78,059.

\$92,969 2027 - INFLATION ADJUSTED FUNDING

A new analysis calculates the 2027 funding based on three assumptions:

- Replacement Reserves on Deposit totaling \$80,047 on July 1, 2027.
- All 2026 Projected Replacements listed on Page C.2 accomplished at a cost to Replacement Reserves less than \$11,345.
- Construction Cost Inflation of 6.00 percent in 2026.

The \$92,969 inflation adjusted funding in 2027 is a 19.10 percent increase over the non-inflation adjusted funding of \$78,059.



Year Four and Beyond

The inflation-adjusted funding calculations outlined above are not intended to be a substitute for periodic evaluation of common elements by an experienced Reserve Analyst. Industry Standards, lender requirements, and many state and local statutes require a Replacement Reserve Study to be professionally updated every 3 to 5 years.

Inflation Adjustment

Prior to approving a budget based upon the 2025, 2026 and 2027 inflation-adjusted funding calculations above, the 6.00 percent base rate of inflation used in our calculations should be compared to rates published by the Bureau of Labor Statistics. If there is a significant discrepancy (over 1 percentage point), contact Miller+Dodson Associates prior to using the Inflation Adjusted Funding.

Interest on Reserves

The recommended funding calculations do not account for interest earned on Replacement Reserves. In 2024, based on a 2.00 percent interest rate, we estimate the Association may earn \$761 on an average balance of \$38,029, \$1,481 on an average balance of \$74,029 in 2025, and \$1,520 on \$76,023 in 2026. The Association may elect to attribute 100 percent of the earned interest to Reserves, resulting in a reduction in the 2024 funding from \$78,059 to \$77,298 (a 0.97 percent reduction), \$82,742 to \$81,262 in 2025 (a 1.78 percent reduction), and \$87,707 to \$86,186 in 2026 (a 1.73 percent reduction).

REPLACEMENT RESERVE STUDY - SUPPLEMENTAL COMMENTS

Maryland's new Reserves and Reserve Study Law, HB-107, is intended to ensure that adequate Reserve Funding is available for capital repair and replacement projects when it is needed. This is done by funding the Reserve Fund annually. The law requires that the Recommended Annual Reserve Funding amount in the most recent Reserve Study be included in the Association's annual budgets. If this is an Association's "initial" (first) professionally conducted Reserve Study, HB-107 gives the Association up to three (3) fiscal years following the fiscal year in which the Reserve Study was completed, to attain the Annual Reserve Funding level recommended in the initial Reserve Study.

[09/30/2023] revised per board

[10/02/2023] revised per board

SECTION B - REPLACEMENT RESERVE INVENTORY

- **PROJECTED REPLACEMENTS.** Cape St. Claire Improvement Association - Replacement Reserve Inventory identifies 197 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 \$1,659,087. Cumulative Replacements totaling \$2,148,255 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.

- **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 \$1000 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 - General Comments on Page B.2.

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.

- **CATEGORIES.** The 197 items included in the Cape St. Claire Improvement Association Replacement Reserve Inventory are divided into 5 major categories. Each category is printed on a separate page, beginning on page B.3.
- **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.

REPLACEMENT RESERVE INVENTORY - GENERAL INFORMATION (CONT'D)

- **INVENTORY DATA.** Each of the 197 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 four 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 a cost database we have developed based upon our detailed interviews with contractors and service providers who are specialists in their respective lines of work.
 - 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 197 Projected Replacements specifically listed in the Replacement Reserve Inventory. The inclusion/exclusion of items from the Replacement Reserve Inventory is discussed on Page B.1.

SITE ITEMS - GENERAL CSCIA PROJECTED REPLACEMENTS					NEL- Normal Economic Life (yrs) REL- Remaining Economic Life (yrs)		
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
1	Gatehouse/entrance monument, repoint masonry	sf	220	\$10.00	10	30	\$2,200
2	Entrance monument, foamboard sign (HDU)	sf	18	\$250.00	25	23	\$4,500
3	Entrance monument, carved wood sign	sf	20	\$220.00	15	5	\$4,400
4	Community announcement board, wood	sf	32	\$240.00	15	10	\$7,680
5	Entrance monument cut post, PTL wood	ea	11	\$300.00	30	15	\$3,300
6	Sign and post, other	ea	16	\$400.00	35	25	\$6,400
7	Misc. asphalt, mill and overlay (allowance)	sf	5,000	\$2.45	20	1	\$12,250
8	Misc. asphalt pavement, crack sealing (allowance)	ft	2,500	\$4.00	5	1	\$10,000
9	Misc. asphalt pavement full-depth patching	sf	1,250	\$4.50	20	1	\$5,625
10	Misc. fence, wood split, 2 rails Metal safety bollards Lakeview Lane	ft	40	\$26.00	15	1	\$1,040 EXCLUDED
11	Misc. stormwater management (10% allowance) Aeration fountain, 1hp	ls	1	\$5,000.00	10	10	\$5,000 EXCLUDED
12	Dog waste station	ea	5	\$450.00	20	11	\$2,250
Replacement Costs - Page Subtotal							\$64,645

COMMENTS
<ul style="list-style-type: none"> We have assumed that the Association will replace the asphalt pavement by the installation of a 2-inch-thick overlay. The pavement will need to be milled prior to the installation of the overlay. Milling and the cost of minor repairs (5 to 10 percent of the total area) to the base materials and bearing soils beneath the pavement are included in the cost shown above. Stormwater Management: Comprehensive drawings detailing the components of the systems listed above were not available for our review. We have included the estimated cost of the systems based upon our experience with other similar communities. We have assumed that 10 percent of the system(s) will require replacement. In the future, this assumption and the estimated costs should be adjusted based upon the community's actual experience as is feasible. Metal safety bollards Lakeview Lane - [09/30/2023] excluded per board (AACO) Item #11: Misc. stormwater management (10% allowance) - [09/14/2023] This item is an allowance for addressing miscellaneous erosion issues that are not part of the municipality stormwater system. Aeration fountain, 1hp - [09/30/2023] excluded per board (DNE)

SITE ITEMS - CLUBHOUSE BUILDING (CB), MAINTENANCE, AND CB FIELD (CBF)					NEL- Normal Economic Life (yrs) REL- Remaining Economic Life (yrs)		
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
13	CB monument, plastic sign	sf	12	\$175.00	20	18	\$2,100
14	CB Asphalt pavement, overlay	sf	8,375	\$1.75	20	5	\$14,656
15	CB Asphalt pavement, seal coat	sf	8,375	\$0.25	5	1	\$2,094
16	CB Concrete flatwork (6% allowance)	sf	103	\$14.00	6	1	\$1,442
	CB Concrete patio/stoop at grade (6% allowance)						EXCLUDED
17	CB Wood curb, 6 x 6 PTL	ft	100	\$21.50	15	1	\$2,150
18	CBF Fence, wood split, 2 rails (10% allowance)	ft	100	\$26.00	3	3	\$2,600
19	CBF Fence, 6' PTL, wood board (10% Allow.)	ft	46	\$30.00	3	1	\$1,380
20	CBF Steel farm gate 10', dog park	ls	5	\$1,750.00	30	25	\$8,750
21	CB Fence, 6' vinyl board gate, trash corral	ft	3	\$600.00	25	15	\$1,800
22	CB Fence, 6' vinyl board, trash corral	ft	40	\$45.00	25	15	\$1,800
23	Pickup truck replacement	ea	1	\$50,500.00	20	11	\$50,500
24	Kubota Tractor B2601 w/loader bucket	ea	1	\$27,500.00	20	11	\$27,500
	Trailer replacement						EXCLUDED
	Truck rack replacement						EXCLUDED
25	CB Well and casing (280' allowance)	ft	280	\$100.00	50	30	\$28,000
26	CB Well pump and pressure tank	ea	1	\$1,000.00	15	9	\$1,000
Replacement Costs - Page Subtotal							\$145,772

COMMENTS

- Concrete has a normal economic life expectancy of 60 years. We are modeling 6% of the total requiring replacement every six years. Items showing zero remaining life expectancy are to take care of immediate needs due to tripping hazards.
- CB Concrete patio/stoop at grade (6% allowance) - [08/21/2023] excluded valuation
- Item #24: Kubota Tractor B2601 w/loader bucket - [10/02/2023] added per board MN: B2150 SN: 23689
- Trailer replacement - [09/30/2023] excluded per board
- Truck rack replacement - [09/30/2023] excluded per board
- Item #25: CB Well and casing (280' allowance) - [09/30/2023] revised per board

SITE ITEMS - MAIN BEACH (MB) PROJECTED REPLACEMENTS					NEL- Normal Economic Life (yrs) REL- Remaining Economic Life (yrs)		
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
27	MB Flag pole with yardarm, 16'	ea	1	\$600.00	30	25	\$600
28	MB Pavers, sand set, replace	sf	3,000	\$18.00	40	33	\$54,000
29	MB Pavers, sand set, reset (20% allowance)	sf	600	\$8.00	5	5	\$4,800
30	MB Retaining wall, segmental block (reset)	sf	100	\$15.00	10	3	\$1,500
31	MB Retaining wall, segmental block	sf	100	\$75.00	80	73	\$7,500
32	MB Fence, 8' vinyl coated chain link	ft	800	\$30.00	45	30	\$24,000
33	MB fence, 8' vinyl coated chain link gate	ea	2	\$600.00	30	15	\$1,200
34	MB Fence, wood board rails (2-rails and post)	ft	260	\$40.00	20	13	\$10,400
35	MB Cable guardrail with wood post	ft	168	\$22.00	30	1	\$3,696
36	MB Site light, head and telephone pole, wood (30')	ea	1	\$2,500.00	25	20	\$2,500
37	MB Meter socket and service, 100 amp	ea	1	\$4,500.00	50	35	\$4,500
38	MB Electric panels and breakers, 100 amp	ea	1	\$6,500.00	50	35	\$6,500
39	MB Stone revetment and groin	lf	250	\$600.00	60	56	\$150,000
40	MB Cobble bar	ft	32	\$100.00	15	11	\$3,200
41	MB Living shoreline (10% allowance)	ft	30	\$100.00	15	11	\$3,000
42	MB Dune restoration (10% allowance)	cy	50	\$90.00	10	6	\$4,500
43	MB Shoreline buoy	ea	2	\$550.00	10	6	\$1,100
Replacement Costs - Page Subtotal							\$282,996

COMMENTS

SITE ITEMS - DEEP CREEK (DC) PROJECTED REPLACEMENTS					NEL- Normal Economic Life (yrs) REL- Remaining Economic Life (yrs)		
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
44	DC Asphalt pavement, overlay	sf	36,623	\$1.75	20	4	\$64,090
45	DC Asphalt pavement, seal coat	sf	36,623	\$0.25	5	1	\$9,156
46	DC Asphalt curb	sf	130	\$8.00	25	1	\$1,040
47	DC Concrete steps (6% allowance)	ft	6	\$175.00	6	1	\$1,050
48	DC Steps, PTL railing	ft	50	\$35.00	15	9	\$1,750
49	DC Retaining wall, PTL	sf	40	\$45.00	20	1	\$1,800
50	DC Retaining wall, CMU (repoint)	sf	170	\$12.00	10	1	\$2,040
51	DC Retaining wall, CMU (replace)	sf	170	\$53.00	40	9	\$9,010
52	DC Wood curb, 10" round pole	ft	120	\$21.50	30	25	\$2,580
53	DC Cable guardrail with wood post	ft	90	\$22.00	30	25	\$1,980
54	DC Fence, wood split, 2 rails	ft	160	\$26.00	15	1	\$4,160
55	DC Fence, wood board rails (2-rails and post)	ft	40	\$40.00	20	9	\$1,600
56	DC Fence, 4' galvanized chain link	ft	50	\$22.00	30	9	\$1,100
57	DC Site light, standard double head	ea	3	\$1,400.00	20	15	\$4,200
58	DC Site light, telephone pole, wood (30')	ea	3	\$1,800.00	25	20	\$5,400
	DC Meter socket and service, 100 amp						EXCLUDED
	DC Meter socket and service, 200 amp						EXCLUDED
59	DC Well pump and pressure tank	ea	1	\$1,000.00	15	9	\$1,000
60	DC Water softener	ea	1	\$1,500.00	20	9	\$1,500
61	DC Well and casing (280' allowance)	ft	280	\$100.00	50	30	\$28,000
Replacement Costs - Page Subtotal							\$141,456

COMMENTS

- DC Meter socket and service, 100 amp - [10/02/2023] moved to Pier Committee per board
- DC Meter socket and service, 200 amp - [10/02/2023] moved to Pier Committee per board
- Item #61: DC Well and casing (280' allowance) - [09/30/2023] revised per board

SITE ITEMS - LAKE CLAIRE (LC)					NEL- Normal Economic Life (yrs)		
PROJECTED REPLACEMENTS					REL- Remaining Economic Life (yrs)		
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
62	LC Asphalt pavement, overlay	sf	14,175	\$1.75	20	3	\$24,806
63	LC Asphalt pavement, seal coat	sf	14,175	\$0.25	5	8	\$3,544
64	LC Wood curb, 6 x 6 PTL	ft	120	\$21.50	15	8	\$2,580
65	LC Wood guardrail with wood post	ft	178	\$30.00	30	8	\$5,340
66	LC Wood bollard 8"	ea	24	\$300.00	30	8	\$7,200
67	LC Batten board groin/seawall, vinyl	ft	100	\$700.00	50	47	\$70,000
68	LC Batten board groin, refurbish (10% of repl)	ls	1	\$7,000.00	30	27	\$7,000
69	LC Batten board groin, cap, PTL	ft	100	\$21.00	15	8	\$2,100
70	LC Living shoreline (10% allowance)	ft	60	\$100.00	15	8	\$6,000
71	LC Dune restoration (10% allowance)	cy	50	\$90.00	10	8	\$4,500
72	LC Inverted root wad plantings (10% allowance)	ls	4	\$500.00	5	3	\$2,000
73	LC Oyster reef structures (10% allowance)	ls	3	\$3,000.00	10	8	\$9,000
74	LC Shoreline buoy	ea	2	\$550.00	10	4	\$1,100
75	LC Well pump and pressure tank	ea	1	\$1,000.00	15	8	\$1,000
76	LC Well and casing (280' allowance)	ft	280	\$100.00	50	8	\$28,000
Replacement Costs - Page Subtotal							\$174,170

COMMENTS

- Note: The shed at Lake Claire is the property of the Lake St. Claire Yacht Club. [09/30/2023] note added per board
- Item #76: LC Well and casing (280' allowance) - [09/30/2023] revised per board

SITE ITEMS - LITTLE MAGOTHY PIER (LM) AND BEACH PARK (BP)						NEL- Normal Economic Life (yrs)		
PROJECTED REPLACEMENTS						REL- Remaining Economic Life (yrs)		
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)	
LITTLE MAGOTHY PIER (LM)								
77	LM Gravel roadway, replenish 3/8" per sf	sf	4,860	\$1.75	10	7	\$8,505	
78	LM Wood guardrail with wood post	ft	35	\$30.00	30	7	\$1,050	
79	LM Site light, head and pole, wood (30')	ea	1	\$2,500.00	25	20	\$2,500	
	LM Meter socket and service, 100 amp						EXCLUDED	
80	BP Asphalt pavement, overlay	sf	2,400	\$1.75	20	2	\$4,200	
LITTLE MAGOTHY BEACH PARK (BP)								
81	BP Asphalt pavement, seal coat	sf	2,400	\$0.25	5	7	\$600	
82	BP Asphalt drainage flume	ft	130	\$50.00	20	2	\$6,500	
83	BP Asphalt drainage flume , seal coat	sf	900	\$1.25	5	7	\$1,125	
84	BP Gravel roadway, replenish 3/8" per sf	sf	2,600	\$1.75	10	7	\$4,550	
85	BP Fence, wood board rails (2-rails and post)	ft	150	\$40.00	20	7	\$6,000	
86	BP Wood guardrail with wood post	ft	40	\$30.00	30	7	\$1,200	
87	BP Site light, standard double head	ea	1	\$1,400.00	20	20	\$1,400	
88	BP Site light, telephone pole, wood (30')	ea	1	\$1,800.00	25	20	\$1,800	
89	BP Micro-Bioretenention rain garden allowance	ls	1	\$6,000.00	5	4	\$6,000	
Replacement Costs - Page Subtotal							\$45,430	

COMMENTS	
<ul style="list-style-type: none"> LM Meter socket and service, 100 amp - [10/02/2023] moved to Pier Committee per board 	

SITE ITEMS - SHOPPING CENTER (SH)					NEL- Normal Economic Life (yrs)		
PROJECTED REPLACEMENTS					REL- Remaining Economic Life (yrs)		
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
	SH Shopping center roadway and parking lots						EXCLUDED
	SH Shopping center buildings and systems						EXCLUDED
	SH Shopping center concrete walks, curb, and						EXCLUDED
	SH Shopping center retaining wall and fences						EXCLUDED
Replacement Costs - Page Subtotal							\$0

COMMENTS									
<ul style="list-style-type: none"> SH Shopping center roadway and parking lots - [08/21/2023] excluded per board SH Shopping center buildings and systems - [08/21/2023] excluded per board SH Shopping center concrete walks, curb, and gutter - [08/21/2023] excluded per board SH Shopping center retaining wall and fences - [08/21/2023] excluded per board 									

SITE ITEMS - SWIMMING POOL (SW)					NEL- Normal Economic Life (yrs)		
PROJECTED REPLACEMENTS					REL- Remaining Economic Life (yrs)		
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
	SW Swimming center roadway and parking lots						EXCLUDED
	SW Swimming center fencing and gates						EXCLUDED
	SW Swimming center pool structure, pumps and						EXCLUDED
	SW Swimming center buildings and systems						EXCLUDED
Replacement Costs - Page Subtotal							\$0

COMMENTS									
<ul style="list-style-type: none"> SW Swimming center roadway and parking lots - [08/21/2023] excluded per board SW Swimming center fencing and gates - [08/21/2023] excluded per board SW Swimming center pool structure, pumps and filters - [08/21/2023] excluded per board SW Swimming center buildings and systems - [08/21/2023] excluded per board 									

RECREATION ITEMS - MAIN BEACH (MB)					NEL- Normal Economic Life (yrs)		REL- Remaining Economic Life (yrs)
PROJECTED REPLACEMENTS							
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
90	MB Playground, border PTL	ft	250	\$13.00	15	11	\$3,250
91	MB Playground surfacing, wood mulch (3")	sf	2,750	\$2.00	3	1	\$5,500
92	MB Playground, ADA MP structure, 4 platforms	ea	1	\$55,000.00	15	11	\$55,000
93	MB Playground, A-frame swing, 2 seat	ea	4	\$2,800.00	15	11	\$11,200
94	MB Playground, dome climber large	ea	1	\$3,800.00	15	11	\$3,800
95	MB Playground, horizontal ladder (10')	ea	2	\$2,000.00	15	11	\$4,000
96	MB Playground, 2 seat teeter totter (6')	ea	1	\$2,800.00	15	11	\$2,800
97	MB Playground, spring ride (small)	ea	3	\$1,100.00	15	11	\$3,300
98	MB Corn hole	ea	2	\$450.00	10	6	\$900
99	MB Picnic table (average of metal and wood)	ea	10	\$1,500.00	15	11	\$15,000
100	MB Bench, coated metal	ea	5	\$1,370.00	15	11	\$6,850
101	MB Bench, PTL wood	ea	3	\$850.00	15	11	\$2,550
102	MB Grill, charcoal park (pedestal 14" X 20")	ea	3	\$850.00	10	6	\$2,550
103	MB Trash can, receptacle, and dog waste station	ea	7	\$1,370.00	10	6	\$9,590
104	MB Bike rack, 9 bikes	ea	1	\$1,900.00	30	25	\$1,900
105	MB Deck/Balcony, composite railing	ft	80	\$49.00	35	30	\$3,920
106	MB Deck, structure PTL	sf	580	\$25.00	45	40	\$14,500
107	MB Deck, composite decking	sf	580	\$18.00	30	30	\$10,440
108	MB Wood steps, composite closed riser	ft	60	\$75.00	20	20	\$4,500
109	MB Bench, recycled plastic	ea	2	\$1,030.00	25	20	\$2,060
Replacement Costs - Page Subtotal							\$163,610

COMMENTS

- Playgrounds and playground equipment should be evaluated annually by a playground safety specialist for compliance with the Consumer Product Safety Commission, Handbook for Public Playground Safety. Defects should be corrected immediately to protect the users of the facilities from potential injury and the Association from potential liability for those injuries. [10/02/2023] revised per board

RECREATION ITEMS - DEEP CREEK (DC)					NEL- Normal Economic Life (yrs)		
PROJECTED REPLACEMENTS					REL- Remaining Economic Life (yrs)		
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
	DC MP court, asphalt overlay						EXCLUDED
110	DC Playground, border PTL	ft	150	\$13.00	15	13	\$1,950
111	DC Playground surfacing, wood mulch (3")	sf	1,000	\$2.00	3	none	\$2,000
112	DC Playground, MP structure, 3 platforms (small)	ea	1	\$30,000.00	15	13	\$30,000
	DC Basketball pole and backboard						EXCLUDED
113	DC Picnic table, ADA (PTL wood table and bench)	ea	4	\$1,380.00	15	5	\$5,520
114	DC Bench, metal	ea	3	\$1,370.00	15	13	\$4,110
115	DC Grill, charcoal park (pedestal 14" X 20")	ea	2	\$850.00	10	13	\$1,700
116	DC Boat ramp, concrete (6% allowance)	sf	42	\$40.00	6	5	\$1,680
117	DC Boat ramp bulkhead, replace, PTL	ft	40	\$350.00	50	41	\$14,000
118	DC Boat ramp bulkhead/cap, refurbish (10% of repl)	ls	1	\$1,820.00	30	21	\$1,820
	DC Kayak racks (4 kayak per bay)						EXCLUDED
Replacement Costs - Page Subtotal							\$62,780

COMMENTS	
<ul style="list-style-type: none"> Note: The kayak racks are the property of the CSC Yacht Club. [09/30/2023] note added per board DC MP court, asphalt overlay - [08/21/2023] excluded per board DC Basketball pole and backboard - [09/30/2023] excluded per board DC Kayak racks (4 kayak per bay) - [09/30/2023] excluded per board 	

RECREATION ITEMS - LAKE CLAIRE (LC)					NEL- Normal Economic Life (yrs)		
PROJECTED REPLACEMENTS					REL- Remaining Economic Life (yrs)		
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
LAKE CLAIRE FISHING PIER							
119	LC Piling (8" diameter) (20% allowance)	ea	12	\$1,200.00	14	4	\$14,400
120	LC Pier structure, PTL (20% allowance)	sf	530	\$31.00	14	4	\$16,430
121	LC Pier decking, PTL (20% allowance)	sf	530	\$21.00	7	4	\$11,130
122	LC Bench, PTL wood	ea	5	\$850.00	7	4	\$4,250
123	LC PTL wood pole, bracket, light fixture	ea	2	\$900.00	20	4	\$1,800
LAKE CLAIRE PICNIC AREA AND KAYAK RACKS							
124	LC Picnic table (PTL wood table and bench)	ea	2	\$1,200.00	15	6	\$2,400
125	LC Grill, charcoal park (pedestal 14" X 20")	ea	2	\$850.00	10	6	\$1,700
126	LC Bike rack, 9 bikes	ea	1	\$1,900.00	30	20	\$1,900
	LC Kayak racks (4 kayak per bay)						EXCLUDED
Replacement Costs - Page Subtotal							\$54,010

COMMENTS	
<ul style="list-style-type: none"> Note: The kayak racks are the property of the CSC Yacht Club. [09/30/2023] note added per board LC Kayak racks (4 kayak per bay) - [09/30/2023] excluded per board 	

RECREATION ITEMS - LITTLE MAGOTHY PIER (LM), BEACH PARK (BP), AND SERENE RAVINE (SR)						NEL- Normal Economic Life (yrs) REL- Remaining Economic Life (yrs)		
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)	
LITTLE MAGOTHY PIER (LM)								
127	LM Picnic table, wood	ea	1	\$1,300.00	15	11	\$1,300	
	LM Kayak racks (4 kayak per bay) Little Magothy							EXCLUDED
LITTLE MAGOTHY BEACH PARK (BP)								
128	BP Picnic table, coated metal	ea	3	\$1,800.00	15	11	\$5,400	
129	BP Bench, wood	ea	3	\$450.00	15	11	\$1,350	
130	BP Grill, charcoal park (pedestal 14" X 20") (min.)	ea	1	\$1,000.00	10	10	\$1,000	
	BP Kayak racks (4 kayak per bay)							EXCLUDED
SERENE RAVINE (SR) [0930/2023] revised name per board								
131	SR Bench, wood	ea	3	\$450.00	15	11	\$1,350	
Replacement Costs - Page Subtotal							\$10,400	

COMMENTS								
<ul style="list-style-type: none"> Note: The kayak racks are the property of the CSC Yacht Club. [09/30/2023] note added per board LM Kayak racks (4 kayak per bay) Little Magothy Pier - [09/30/2023] excluded per board BP Kayak racks (4 kayak per bay) - [09/30/2023] excluded per board 								

EXTERIOR ITEMS - CLUBHOUSE BUILDING (CB), GARAGE (G), AND SHED (S)					NEL- Normal Economic Life (yrs) REL- Remaining Economic Life (yrs)		
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
132	CB Roofing, asphalt shingles	sf	4,380	\$5.00	25	15	\$21,900
133	CB Gutter and downspouts, 5" aluminum	ft	200	\$12.00	30	15	\$2,400
134	CB Chimney cap, metal	ea	3	\$350.00	25	15	\$1,050
135	CB Gable vent, wood	sf	50	\$25.00	35	15	\$1,250
136	CB Soffit and trim, aluminum/vinyl	sf	600	\$9.00	35	15	\$5,400
137	CB Siding and trim, composite PVC	sf	2,900	\$14.00	50	30	\$40,600
138	CB Column, 8", PVC and wood fiber	ft	16	\$70.00	40	20	\$1,120
139	CB Window, operating	sf	315	\$68.00	40	20	\$21,420
140	CB Door, steel, flush (3' X 6'8")	ea	1	\$1,600.00	25	15	\$1,600
141	CB Door, steel and glass (3' X 6'8")	ea	2	\$2,200.00	25	15	\$4,400
142	CB Door, steel and glass (6'X7')	pr	2	\$2,795.00	35	25	\$5,590
143	CB Door sidelights	ea	2	\$1,400.00	25	25	\$2,800
144	G Garage roofing, asphalt shingles	sf	500	\$5.00	25	15	\$2,500
145	G Garage Gable vent, wood	sf	50	\$25.00	35	15	\$1,250
146	G Garage soffit and trim, aluminum	sf	400	\$9.00	35	15	\$3,600
147	G Garage siding and trim, composite PVC	sf	100	\$14.00	50	40	\$1,400
148	G Garage door, steel, flush (3' X 6'8")	ea	1	\$1,600.00	25	20	\$1,600
149	G Garage steel OH door with chain	ea	1	\$3,000.00	20	15	\$3,000
150	S Shed, wood	sf	200	\$75.00	40	35	\$15,000
Replacement Costs - Page Subtotal							\$137,880

COMMENTS

- Item #134: CB Chimney cap, metal - [09/30/2023] revised per board

EXTERIOR ITEMS - GATEHOUSE (GH) AND PUMPHOUSES (PH)					NEL- Normal Economic Life (yrs)		REPLACEMENT COST (\$)
PROJECTED REPLACEMENTS					REL- Remaining Economic Life (yrs)		
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
GATEHOUSE							
151	GH Gatehouse door, wood (3' X 6'8")	ea	1	\$2,400.00	25	20	\$2,400
152	GH Gatehouse window and door, historical	sf	23	\$89.00	30	20	\$2,047
153	GH Gatehouse meter socket and service, 100 amp	ea	1	\$4,500.00	50	45	\$4,500
3 - PUMPHOUSES (WELL) [09/30/2023] revised description							
154	PH Pumphouse roofing, asphalt shingles	sf	395	\$5.00	25	15	\$1,975
155	PH Pumphouse soffit, trim, and siding, wood	sf	194	\$14.00	40	1	\$2,716
156	PH Pumphouse doors, wood (3' X 4')	ea	4	\$1,650.00	25	14	\$6,600
Replacement Costs - Page Subtotal							\$20,238

COMMENTS								
<ul style="list-style-type: none"> Item #154: PH Pumphouse roofing, asphalt shingles - [09/30/2023] revised description per board Item #155: PH Pumphouse soffit, trim, and siding, wood - [09/30/2023] revised description per board Item #156: PH Pumphouse doors, wood (3' X 4') - [09/30/2023] revised description per board 								

INTERIOR ITEMS - CLUBHOUSE BUILDING (CB)					NEL- Normal Economic Life (yrs)		
PROJECTED REPLACEMENTS					REL- Remaining Economic Life (yrs)		
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
157	CB Flooring, carpet	sf	500	\$6.00	10	7	\$3,000
158	CB Flooring, wood laminate, replace	sf	3,800	\$18.00	20	16	\$68,400
159	CB Emergency lighting and exit signs	ea	6	\$175.00	14	11	\$1,050
160	CB Ceiling, suspended	sf	2,000	\$10.00	20	17	\$20,000
161	CB Interior lighting, general	ea	60	\$125.00	21	17	\$7,500
162	CB Kitchen, residential, electric range	ea	1	\$1,200.00	21	17	\$1,200
163	CB Kitchen, residential, microwave/hood	ea	1	\$570.00	21	17	\$570
164	CB Kitchen, commercial, ice-maker	ea	1	\$3,800.00	20	17	\$3,800
165	CB Kitchen, commercial, refrigerator (52")	ea	1	\$6,500.00	20	17	\$6,500
166	CB Kitchen, commercial, freezer (52", 46 cu. Ft)	ea	1	\$7,000.00	20	17	\$7,000
167	CB Kitchen, residential, granite counter-top	sf	100	\$110.00	42	37	\$11,000
168	CB Kitchen, residential, cabinets	ft	46	\$275.00	21	21	\$12,650
Replacement Costs - Page Subtotal							\$142,670

COMMENTS

INTERIOR ITEMS - CLUBHOUSE BUILDING (CB) - CONT.					NEL- Normal Economic Life (yrs)		
PROJECTED REPLACEMENTS					REL- Remaining Economic Life (yrs)		
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
169	CB Office, desk wood	ea	3	\$2,200.00	21	12	\$6,600
170	CB Office, desk chair	ea	5	\$450.00	14	12	\$2,250
171	CB Office, side chair	ea	5	\$125.00	14	12	\$625
172	CB Office, two drawer lateral file cabinet	ea	4	\$450.00	21	18	\$1,800
173	CB Office, four drawer file cabinet	ea	6	\$280.00	21	18	\$1,680
174	CB Multifunctional copier, medium workgroup	ea	1	\$1,500.00	10	4	\$1,500
175	CB Multifunctional printer, small workgroup	ea	1	\$900.00	10	4	\$900
176	CB Computer station, desktop (8 gb)	ea	3	\$925.00	5	4	\$2,775
177	CB Network/wireless node	ea	1	\$2,200.00	10	4	\$2,200
178	CB Conference room chairs	ea	150	\$350.00	14	9	\$52,500
179	CB Folding table	ea	47	\$250.00	14	9	\$11,750
180	CB Restroom, renovate (based on 60 sf)	ft	40	\$150.00	20	9	\$6,000
181	CB Sink, fixture and mirror	ea	3	\$800.00	10	9	\$2,400
182	CB Toilet and stall	ea	2	\$1,200.00	20	9	\$2,400
183	CB Urinal and partition	ea	1	\$750.00	20	9	\$750
Replacement Costs - Page Subtotal							\$96,130

COMMENTS	
<ul style="list-style-type: none"> Item #169: CB Office, desk wood - [09/30/2023] revised per board 	

BUILDING SYSTEMS - CLUBHOUSE BUILDING (CB) - CONT.					NEL- Normal Economic Life (yrs)		
PROJECTED REPLACEMENTS					REL- Remaining Economic Life (yrs)		
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
184	CB AC split system (5 ton)	ea	1	\$18,500.00	15	4	\$18,500
185	CB AC split system (2 ton)	ea	1	\$10,500.00	15	10	\$10,500
186	CB AC split system (5 ton)	ea	1	\$18,500.00	15	9	\$18,500
187	CB AC split system (2 ton)	ea	1	\$10,500.00	15	15	\$10,500
188	CB Water heater, electric (50 gal.)	ea	1	\$2,600.00	15	11	\$2,600
189	CB Building piping, allowance (CPVC)	ls	1	\$4,800.00	40	17	\$4,800
190	CB Sanitary piping, allowance (PVC)	ls	1	\$4,800.00	60	27	\$4,800
191	CB Meter socket and service, 200 amp	ea	1	\$10,500.00	50	37	\$10,500
192	CB Electric panels and breakers, 200 amp	ea	1	\$5,500.00	50	37	\$5,500
193	CB Electric panels and breakers, 60 amp	ea	2	\$4,500.00	50	37	\$9,000
194	CB Electric safety switches, 30 amp	ea	4	\$1,400.00	60	47	\$5,600
195	CB Fire annunciator system, basic	ea	1	\$10,500.00	30	17	\$10,500
196	CB Security video recorder (IP 8 channel - digital)	ea	1	\$2,400.00	15	7	\$2,400
197	CB Security camera (IP)	ea	8	\$400.00	10	7	\$3,200
Replacement Costs - Page Subtotal							\$116,900

COMMENTS	
<ul style="list-style-type: none"> Item #184: CB AC split system (5 ton) - [09/30/2023] revised per board Item #185: CB AC split system (2 ton) - [09/30/2023] revised per board Item #186: CB AC split system (5 ton) - [09/30/2023] revised per board Item #187: CB AC split system (2 ton) - [09/30/2023] revised per board 	

VALUATION EXCLUSIONS							
Excluded Items							
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
	Ground-mounted site lighting fixtures						EXCLUDED
	Miscellaneous signage						EXCLUDED
	Mailboxes						EXCLUDED
	Bollard/access control devices						EXCLUDED
	Pier ropes, bumpers, and cleats						EXCLUDED
	Concrete stoops						EXCLUDED
	Wooden shed ramps						EXCLUDED
	Fire extinguisher cabinet						EXCLUDED
	Sprinkler head						EXCLUDED
	Interior doors						EXCLUDED
	Electric heaters						EXCLUDED

VALUATION EXCLUSIONS	
Comments	
<ul style="list-style-type: none"> Valuation Exclusions. For ease of administration of the Replacement Reserves and to reflect accurately how Replacement Reserves are administered, items with a dollar value less than \$1000 have not been scheduled for funding from Replacement Reserve. Examples of items excluded by Replacement Reserves by this standard are listed above. The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive. 	

LONG-LIFE EXCLUSIONS							
Excluded Items							
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	REPLACEMENT COST (\$)	UNIT REL	REL	REPLACEMENT COST (\$)
	Masonry features						EXCLUDED
	Miscellaneous culverts						EXCLUDED
	Bridge structure and foundations						EXCLUDED
	Interior doors						EXCLUDED
	Building foundation(s)						EXCLUDED
	Concrete floor slabs (interior)						EXCLUDED
	Wall, floor, and roof structure						EXCLUDED
	Common element electrical services						EXCLUDED
	Electrical wiring						EXCLUDED
	Water piping at common facilities						EXCLUDED
	Waste piping at common facilities						EXCLUDED
	Gas services at common facilities						EXCLUDED
	Swimming pool facility						EXCLUDED
	Shopping center facility						EXCLUDED

LONG-LIFE EXCLUSIONS	
Comments	
<ul style="list-style-type: none"> Long Life Exclusions. Components that when properly maintained, can be assumed to have a life equal to the property as a whole, are normally excluded from the Replacement Reserve Inventory. Examples of items excluded from funding by Replacement Reserves by this standard are listed above. Exterior masonry is generally assumed to have an unlimited economic life, but periodic repointing is required, and we have included this for funding in the Replacement Reserve Inventory. The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive. 	

UNIT IMPROVEMENTS EXCLUSIONS							
Excluded Items							
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
	Domestic water pipes serving one unit						EXCLUDED
	Sanitary sewers serving one unit						EXCLUDED
	Electrical wiring serving one unit						EXCLUDED
	Cable TV service serving one unit						EXCLUDED
	Telephone service serving one unit						EXCLUDED
	Gas service serving one unit						EXCLUDED
	Driveway on an individual lot						EXCLUDED
	Apron on an individual lot						EXCLUDED
	Sidewalk on an individual lot						EXCLUDED
	Stairs on an individual lot						EXCLUDED
	Curb and gutter on an individual lot						EXCLUDED
	Retaining wall on an individual lot						EXCLUDED
	Fence on an individual lot						EXCLUDED
	Lot owner private piers						EXCLUDED
	Seawal/bulkhead on an individual lot						EXCLUDED
	Unit exterior						EXCLUDED
	Unit windows						EXCLUDED
	Unit doors						EXCLUDED
	Unit deck, patio, and/or balcony						EXCLUDED
	Unit mailbox						EXCLUDED
	Unit interior						EXCLUDED
	Unit HVAC system						EXCLUDED

UNIT IMPROVEMENTS EXCLUSIONS	
Comments	
<ul style="list-style-type: none"> Unit improvement Exclusions. We understand that the elements of the project that relate to a single unit are the responsibility of that unit owner. Examples of items excluded from funding by Replacement Reserves by this standard are listed above. The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive. 	

UTILITY EXCLUSIONS							
Excluded Items							
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
	Primary electric feeds						EXCLUDED
	Electric transformers						EXCLUDED
	Cable TV systems and structures						EXCLUDED
	Telephone cables and structures						EXCLUDED
	Site lighting						EXCLUDED
	Gas mains and meters						EXCLUDED
	Water mains and meters						EXCLUDED
	Sanitary sewers						EXCLUDED
	Stormwater management system						EXCLUDED

UTILITY EXCLUSIONS	
Comments	
<ul style="list-style-type: none">Utility Exclusions. Many improvements owned by utility companies are on property owned by the Association. We have assumed that repair, maintenance, and replacements of these components will be done at the expense of the appropriate utility company. Examples of items excluded from funding Replacement Reserves by this standard are listed above.The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.	

MAINTENANCE AND REPAIR EXCLUSIONS							
Excluded Items							
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
	Cleaning of asphalt pavement						EXCLUDED
	Striping of parking spaces						EXCLUDED
	Numbering of parking spaces						EXCLUDED
	Landscaping and site grading						EXCLUDED
	Exterior painting						EXCLUDED
	Interior painting						EXCLUDED
	Janitorial service						EXCLUDED
	Repair services						EXCLUDED
	Partial replacements						EXCLUDED
	Capital improvements						EXCLUDED

MAINTENANCE AND REPAIR EXCLUSIONS	
Comments	
<ul style="list-style-type: none"> Maintenance activities, one-time-only repairs, and capital improvements. These activities are NOT appropriately funded from Replacement Reserves. The inclusion of such component in the Replacement Reserve Inventory could jeopardize the special tax status of ALL Replacement Reserves, exposing the Association to significant tax liabilities. We recommend that the Board of Directors discuss these exclusions and Revenue Ruling 75-370 with a Certified Public Accountant. Examples of items excluded from funding by Replacement Reserves are listed above. The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive. 	

GOVERNMENT EXCLUSIONS								
Excluded Items								
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)	
	Government, roadways and parking						EXCLUDED	
	Government, sidewalks and curbs						EXCLUDED	
	Government, lighting						EXCLUDED	
	Government, stormwater management						EXCLUDED	
	Government, ponds						EXCLUDED	
	Government, mailboxes						EXCLUDED	

GOVERNMENT EXCLUSIONS	
Comments	
<ul style="list-style-type: none">Government Exclusions. We have assumed that some of the improvements installed on property owned by the Association will be maintained by the state, county, or local government, or other association or other responsible entity. Examples of items excluded from funding by Replacement Reserves by this standard are listed above.Excluded rights-of-way, including adjacent properties and adjacent roadways.The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.	

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SECTION C - CALENDAR OF PROJECTED ANNUAL REPLACEMENTS

GENERAL STATEMENT. The 197 Projected Replacements in the Cape St. Claire Improvement Association Replacement Reserve Inventory whose replacement is scheduled to be funded from Replacement Reserves are broken down on a year-by-year basis, beginning on Page C.2.

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, Miller Dodson 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 Miller - Dodson Associates 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 is a reflection of 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 Miller - Dodson Associates 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, begins on Page C2. 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.

PROJECTED REPLACEMENTS

Item	2024 - Study Year	\$	Item	2025 - YEAR 1	\$
111	DC Playground surfacing, wood mulch (3")	\$2,000	7	Misc. asphalt, mill and overlay (allowance)	\$12,250
			8	Misc. asphalt pavement, crack sealing (allowance)	\$10,000
			9	Misc. asphalt pavement full-depth patching (allowance)	\$5,625
			10	Misc. fence, wood split, 2 rails	\$1,040
			15	CB Asphalt pavement, seal coat	\$2,094
			16	CB Concrete flatwork (6% allowance)	\$1,442
			17	CB Wood curb, 6 x 6 PTL	\$2,150
			19	CBF Fence, 6' PTL, wood board (10% Allow.)	\$1,380
			35	MB Cable guardrail with wood post	\$3,696
			45	DC Asphalt pavement, seal coat	\$9,156
			46	DC Asphalt curb	\$1,040
			47	DC Concrete steps (6% allowance)	\$1,050
			49	DC Retaining wall, PTL	\$1,800
			50	DC Retaining wall, CMU (repoint)	\$2,040
			54	DC Fence, wood split, 2 rails	\$4,160
			91	MB Playground surfacing, wood mulch (3")	\$5,500
			155	PH Pumphouse soffit, trim, and siding, wood	\$2,716
Total Scheduled Replacements		\$2,000	Total Scheduled Replacements		\$67,139
Item	2026 - YEAR 2	\$	Item	2027 - YEAR 3	\$
80	BP Asphalt pavement, overlay	\$4,200	18	CBF Fence, wood split, 2 rails (10% allowance)	\$2,600
82	BP Asphalt drainage flume	\$6,500	30	MB Retaining wall, segmental block (reset)	\$1,500
			62	LC Asphalt pavement, overlay	\$24,806
			72	LC Inverted root wad plantings (10% allowance)	\$2,000
			111	DC Playground surfacing, wood mulch (3")	\$2,000
Total Scheduled Replacements		\$10,700	Total Scheduled Replacements		\$32,906

PROJECTED REPLACEMENTS

Item	2028 - YEAR 4	\$	Item	2029 - YEAR 5	\$
19	CBF Fence, 6' PTL, wood board (10% Allow.)	\$1,380	3	Entrance monument, carved wood sign	\$4,400
44	DC Asphalt pavement, overlay	\$64,090	14	CB Asphalt pavement, overlay	\$14,656
74	LC Shoreline buoy	\$1,100	29	MB Pavers, sand set, reset (20% allowance)	\$4,800
89	BP Micro-Bioretenction rain garden allowance	\$6,000	113	DC Picnic table, ADA (PTL wood table and bench)	\$5,520
91	MB Playground surfacing, wood mulch (3")	\$5,500	116	DC Boat ramp, concrete (6% allowance)	\$1,680
119	LC Piling (8" diameter) (20% allowance)	\$14,400			
120	LC Pier structure, PTL (20% allowance)	\$16,430			
121	LC Pier decking, PTL (20% allowance)	\$11,130			
122	LC Bench, PTL wood	\$4,250			
123	LC PTL wood pole, bracket, light fixture	\$1,800			
174	CB Multifunctional copier, medium workgroup	\$1,500			
175	CB Multifunctional printer, small workgroup	\$900			
176	CB Computer station, desktop (8 gb)	\$2,775			
177	CB Network/wireless node	\$2,200			
184	CB AC split system (5 ton)	\$18,500			
Total Scheduled Replacements		\$151,955	Total Scheduled Replacements		\$31,056

Item	2030 - YEAR 6	\$	Item	2031 - YEAR 7	\$
8	Misc. asphalt pavement, crack sealing (allowance)	\$10,000	16	CB Concrete flatwork (6% allowance)	\$1,442
15	CB Asphalt pavement, seal coat	\$2,094	19	CBF Fence, 6' PTL, wood board (10% Allow.)	\$1,380
18	CBF Fence, wood split, 2 rails (10% allowance)	\$2,600	47	DC Concrete steps (6% allowance)	\$1,050
42	MB Dune restoration (10% allowance)	\$4,500	77	LM Gravel roadway, replenish 3/8" per sf	\$8,505
43	MB Shoreline buoy	\$1,100	78	LM Wood guardrail with wood post	\$1,050
45	DC Asphalt pavement, seal coat	\$9,156	81	BP Asphalt pavement, seal coat	\$600
98	MB Corn hole	\$900	83	BP Asphalt drainage flume , seal coat	\$1,125
102	MB Grill, charcoal park (pedestal 14" X 20")	\$2,550	84	BP Gravel roadway, replenish 3/8" per sf	\$4,550
103	MB Trash can, receptacle, and dog waste station	\$9,590	85	BP Fence, wood board rails (2-rails and post)	\$6,000
111	DC Playground surfacing, wood mulch (3")	\$2,000	86	BP Wood guardrail with wood post	\$1,200
124	LC Picnic table (PTL wood table and bench)	\$2,400	91	MB Playground surfacing, wood mulch (3")	\$5,500
125	LC Grill, charcoal park (pedestal 14" X 20")	\$1,700	157	CB Flooring, carpet	\$3,000
Total Scheduled Replacements		\$48,590	196	CB Security video recorder (IP 8 channel - digital)	\$2,400
			197	CB Security camera (IP)	\$3,200
Total Scheduled Replacements		\$48,590	Total Scheduled Replacements		\$41,002

PROJECTED REPLACEMENTS

Item	2032 - YEAR 8	\$	Item	2033 - YEAR 9	\$
63	LC Asphalt pavement, seal coat	\$3,544	18	CBF Fence, wood split, 2 rails (10% allowance)	\$2,600
64	LC Wood curb, 6 x 6 PTL	\$2,580	26	CB Well pump and pressure tank	\$1,000
65	LC Wood guardrail with wood post	\$5,340	48	DC Steps, PTL railing	\$1,750
66	LC Wood bollard 8"	\$7,200	51	DC Retaining wall, CMU (replace)	\$9,010
69	LC Batten board groin, cap, PTL	\$2,100	55	DC Fence, wood board rails (2-rails and post)	\$1,600
70	LC Living shoreline (10% allowance)	\$6,000	56	DC Fence, 4' galvanized chain link	\$1,100
71	LC Dune restoration (10% allowance)	\$4,500	59	DC Well pump and pressure tank	\$1,000
72	LC Inverted root wad plantings (10% allowance)	\$2,000	60	DC Water softener	\$1,500
73	LC Oyster reef structures (10% allowance)	\$9,000	89	BP Micro-Bioretenention rain garden allowance	\$6,000
75	LC Well pump and pressure tank	\$1,000	111	DC Playground surfacing, wood mulch (3")	\$2,000
76	LC Well and casing (280' allowance)	\$28,000	176	CB Computer station, desktop (8 gb)	\$2,775
			178	CB Conference room chairs	\$52,500
			179	CB Folding table	\$11,750
			180	CB Restroom, renovate (based on 60 sf)	\$6,000
			181	CB Sink, fixture and mirror	\$2,400
			182	CB Toilet and stall	\$2,400
			183	CB Urinal and partition	\$750
			186	CB AC split system (5 ton)	\$18,500
Total Scheduled Replacements		\$71,264	Total Scheduled Replacements		\$124,635

Item	2034 - YEAR 10	\$	Item	2035 - YEAR 11	\$
4	Community announcement board, wood	\$7,680	8	Misc. asphalt pavement, crack sealing (allowance)	\$10,000
11	Misc. stormwater management (10% allowance)	\$5,000	12	Dog waste station	\$2,250
19	CBF Fence, 6' PTL, wood board (10% Allow.)	\$1,380	15	CB Asphalt pavement, seal coat	\$2,094
29	MB Pavers, sand set, reset (20% allowance)	\$4,800	23	Pickup truck replacement	\$50,500
91	MB Playground surfacing, wood mulch (3")	\$5,500	24	Kubota Tractor B2601 w/loader bucket	\$27,500
130	BP Grill, charcoal park (pedestal 14" X 20") (min.)	\$1,000	40	MB Cobble bar	\$3,200
185	CB AC split system (2 ton)	\$10,500	41	MB Living shoreline (10% allowance)	\$3,000
			45	DC Asphalt pavement, seal coat	\$9,156
			50	DC Retaining wall, CMU (repoint)	\$2,040
			90	MB Playground, border PTL	\$3,250
			92	MB Playground, ADA MP structure, 4 platforms (large)	\$55,000
			93	MB Playground, A-frame swing, 2 seat	\$11,200
			94	MB Playground, dome climber large	\$3,800
			95	MB Playground, horizontal ladder (10')	\$4,000
			96	MB Playground, 2 seat teeter totter (6')	\$2,800
			97	MB Playground, spring ride (small)	\$3,300
			99	MB Picnic table (average of metal and wood)	\$15,000
			100	MB Bench, coated metal	\$6,850
			101	MB Bench, PTL wood	\$2,550
			116	DC Boat ramp, concrete (6% allowance)	\$1,680
			121	LC Pier decking, PTL (20% allowance)	\$11,130
			122	LC Bench, PTL wood	\$4,250
			127	LM Picnic table, wood	\$1,300
			128	BP Picnic table, coated metal	\$5,400
			129	BP Bench, wood	\$1,350
			131	SR Bench, wood	\$1,350
			159	CB Emergency lighting and exit signs	\$1,050
			188	CB Water heater, electric (50 gal.)	\$2,600
Total Scheduled Replacements		\$35,860	Total Scheduled Replacements		\$247,600

PROJECTED REPLACEMENTS

2036 - YEAR 12			2037 - YEAR 13		
Item		\$	Item		\$
18	CBF Fence, wood split, 2 rails (10% allowance)	\$2,600	16	CB Concrete flatwork (6% allowance)	\$1,442
81	BP Asphalt pavement, seal coat	\$600	19	CBF Fence, 6' PTL, wood board (10% Allow.)	\$1,380
83	BP Asphalt drainage flume , seal coat	\$1,125	30	MB Retaining wall, segmental block (reset)	\$1,500
111	DC Playground surfacing, wood mulch (3")	\$2,000	34	MB Fence, wood board rails (2-rails and post)	\$10,400
169	CB Office, desk wood	\$6,600	47	DC Concrete steps (6% allowance)	\$1,050
170	CB Office, desk chair	\$2,250	63	LC Asphalt pavement, seal coat	\$3,544
171	CB Office, side chair	\$625	72	LC Inverted root wad plantings (10% allowance)	\$2,000
			91	MB Playground surfacing, wood mulch (3")	\$5,500
			110	DC Playground, border PTL	\$1,950
			112	DC Playground, MP structure, 3 platforms (small)	\$30,000
			114	DC Bench, metal	\$4,110
			115	DC Grill, charcoal park (pedestal 14" X 20")	\$1,700
Total Scheduled Replacements		\$15,800	Total Scheduled Replacements		\$64,576

2038 - YEAR 14			2039 - YEAR 15		
Item		\$	Item		\$
74	LC Shoreline buoy	\$1,100	5	Entrance monument cut post, PTL wood	\$3,300
89	BP Micro-Bioretenion rain garden allowance	\$6,000	18	CBF Fence, wood split, 2 rails (10% allowance)	\$2,600
156	PH Pumphouse doors, wood (3' X 4')	\$6,600	21	CB Fence, 6' vinyl board gate, trash corral	\$1,800
174	CB Multifunctional copier, medium workgroup	\$1,500	22	CB Fence, 6' vinyl board, trash corral	\$1,800
175	CB Multifunctional printer, small workgroup	\$900	29	MB Pavers, sand set, reset (20% allowance)	\$4,800
176	CB Computer station, desktop (8 gb)	\$2,775	33	MB fence, 8' vinyl coated chain link gate	\$1,200
177	CB Network/wireless node	\$2,200	57	DC Site light, standard double head	\$4,200
			111	DC Playground surfacing, wood mulch (3")	\$2,000
			132	CB Roofing, asphalt shingles	\$21,900
			133	CB Gutter and downspouts, 5" aluminum	\$2,400
			134	CB Chimney cap, metal	\$1,050
			135	CB Gable vent, wood	\$1,250
			136	CB Soffit and trim, aluminum/vinyl	\$5,400
			140	CB Door, steel, flush (3' X 6'8")	\$1,600
			141	CB Door, steel and glass (3' X 6'8")	\$4,400
			144	G Garage roofing, asphalt shingles	\$2,500
			145	G Garage Gable vent, wood	\$1,250
			146	G Garage soffit and trim, aluminum	\$3,600
			149	G Garage steel OH door with chain	\$3,000
			154	PH Pumphouse roofing, asphalt shingles	\$1,975
			187	CB AC split system (2 ton)	\$10,500
Total Scheduled Replacements		\$21,075	Total Scheduled Replacements		\$82,525

PROJECTED REPLACEMENTS

Item	2040 - YEAR 16	\$	Item	2041 - YEAR 17	\$
8	Misc. asphalt pavement, crack sealing (allowance)	\$10,000	77	LM Gravel roadway, replenish 3/8" per sf	\$8,505
10	Misc. fence, wood split, 2 rails	\$1,040	81	BP Asphalt pavement, seal coat	\$600
15	CB Asphalt pavement, seal coat	\$2,094	83	BP Asphalt drainage flume , seal coat	\$1,125
17	CB Wood curb, 6 x 6 PTL	\$2,150	84	BP Gravel roadway, replenish 3/8" per sf	\$4,550
19	CBF Fence, 6' PTL, wood board (10% Allow.)	\$1,380	116	DC Boat ramp, concrete (6% allowance)	\$1,680
42	MB Dune restoration (10% allowance)	\$4,500	157	CB Flooring, carpet	\$3,000
43	MB Shoreline buoy	\$1,100	160	CB Ceiling, suspended	\$20,000
45	DC Asphalt pavement, seal coat	\$9,156	161	CB Interior lighting, general	\$7,500
54	DC Fence, wood split, 2 rails	\$4,160	162	CB Kitchen, residential, electric range	\$1,200
91	MB Playground surfacing, wood mulch (3")	\$5,500	163	CB Kitchen, residential, microwave/hood	\$570
98	MB Corn hole	\$900	164	CB Kitchen, commercial, ice-maker	\$3,800
102	MB Grill, charcoal park (pedestal 14" X 20")	\$2,550	165	CB Kitchen, commercial, refrigerator (52")	\$6,500
103	MB Trash can, receptacle, and dog waste station	\$9,590	166	CB Kitchen, commercial, freezer (52", 46 cu. Ft)	\$7,000
125	LC Grill, charcoal park (pedestal 14" X 20")	\$1,700	189	CB Building piping, allowance (CPVC)	\$4,800
158	CB Flooring, wood laminate, replace	\$68,400	195	CB Fire annunciator system, basic	\$10,500
			197	CB Security camera (IP)	\$3,200
Total Scheduled Replacements		\$124,220	Total Scheduled Replacements		\$84,530

Item	2042 - YEAR 18	\$	Item	2043 - YEAR 19	\$
13	CB monument, plastic sign	\$2,100	16	CB Concrete flatwork (6% allowance)	\$1,442
18	CBF Fence, wood split, 2 rails (10% allowance)	\$2,600	19	CBF Fence, 6' PTL, wood board (10% Allow.)	\$1,380
63	LC Asphalt pavement, seal coat	\$3,544	47	DC Concrete steps (6% allowance)	\$1,050
71	LC Dune restoration (10% allowance)	\$4,500	89	BP Micro-Bioretenention rain garden allowance	\$6,000
72	LC Inverted root wad plantings (10% allowance)	\$2,000	91	MB Playground surfacing, wood mulch (3")	\$5,500
73	LC Oyster reef structures (10% allowance)	\$9,000	176	CB Computer station, desktop (8 gb)	\$2,775
111	DC Playground surfacing, wood mulch (3")	\$2,000	181	CB Sink, fixture and mirror	\$2,400
119	LC Piling (8" diameter) (20% allowance)	\$14,400	184	CB AC split system (5 ton)	\$18,500
120	LC Pier structure, PTL (20% allowance)	\$16,430			
121	LC Pier decking, PTL (20% allowance)	\$11,130			
122	LC Bench, PTL wood	\$4,250			
172	CB Office, two drawer lateral file cabinet	\$1,800			
173	CB Office, four drawer file cabinet	\$1,680			
Total Scheduled Replacements		\$75,434	Total Scheduled Replacements		\$39,047

PROJECTED REPLACEMENTS

2044 - YEAR 20			2045 - YEAR 21		
Item		\$	Item		\$
3	Entrance monument, carved wood sign	\$4,400	7	Misc. asphalt, mill and overlay (allowance)	\$12,250
11	Misc. stormwater management (10% allowance)	\$5,000	8	Misc. asphalt pavement, crack sealing (allowance)	\$10,000
29	MB Pavers, sand set, reset (20% allowance)	\$4,800	9	Misc. asphalt pavement full-depth patching (allowance)	\$5,625
36	MB Site light, head and telephone pole, wood (30')	\$2,500	15	CB Asphalt pavement, seal coat	\$2,094
58	DC Site light, telephone pole, wood (30')	\$5,400	18	CBF Fence, wood split, 2 rails (10% allowance)	\$2,600
79	LM Site light, head and pole, wood (30')	\$2,500	45	DC Asphalt pavement, seal coat	\$9,156
87	BP Site light, standard double head	\$1,400	49	DC Retaining wall, PTL	\$1,800
88	BP Site light, telephone pole, wood (30')	\$1,800	50	DC Retaining wall, CMU (repoint)	\$2,040
108	MB Wood steps, composite closed riser	\$4,500	111	DC Playground surfacing, wood mulch (3")	\$2,000
109	MB Bench, recycled plastic	\$2,060	118	DC Boat ramp bulkhead/cap, refurbish (10% of repl)	\$1,820
113	DC Picnic table, ADA (PTL wood table and bench)	\$5,520	124	LC Picnic table (PTL wood table and bench)	\$2,400
126	LC Bike rack, 9 bikes	\$1,900	168	CB Kitchen, residential, cabinets	\$12,650
130	BP Grill, charcoal park (pedestal 14" X 20") (min.)	\$1,000			
138	CB Column, 8", PVC and wood fiber	\$1,120			
139	CB Window, operating	\$21,420			
148	G Garage door, steel, flush (3' X 6'8")	\$1,600			
151	GH Gatehouse door, wood (3' X 6'8")	\$2,400			
152	GH Gatehouse window and door, historical refurbish	\$2,047			
Total Scheduled Replacements		\$71,367	Total Scheduled Replacements		\$64,435

2046 - YEAR 22			2047 - YEAR 23		
Item		\$	Item		\$
19	CBF Fence, 6' PTL, wood board (10% Allow.)	\$1,380	2	Entrance monument, foamboard sign (HDU)	\$4,500
80	BP Asphalt pavement, overlay	\$4,200	30	MB Retaining wall, segmental block (reset)	\$1,500
81	BP Asphalt pavement, seal coat	\$600	62	LC Asphalt pavement, overlay	\$24,806
82	BP Asphalt drainage flume	\$6,500	63	LC Asphalt pavement, seal coat	\$3,544
83	BP Asphalt drainage flume , seal coat	\$1,125	64	LC Wood curb, 6 x 6 PTL	\$2,580
91	MB Playground surfacing, wood mulch (3")	\$5,500	69	LC Batten board groin, cap, PTL	\$2,100
196	CB Security video recorder (IP 8 channel - digital)	\$2,400	70	LC Living shoreline (10% allowance)	\$6,000
			72	LC Inverted root wad plantings (10% allowance)	\$2,000
			75	LC Well pump and pressure tank	\$1,000
			115	DC Grill, charcoal park (pedestal 14" X 20")	\$1,700
			116	DC Boat ramp, concrete (6% allowance)	\$1,680
			178	CB Conference room chairs	\$52,500
			179	CB Folding table	\$11,750
Total Scheduled Replacements		\$21,705	Total Scheduled Replacements		\$115,660

PROJECTED REPLACEMENTS

Item	2048 - YEAR 24	\$	Item	2049 - YEAR 25	\$
18	CBF Fence, wood split, 2 rails (10% allowance)	\$2,600	4	Community announcement board, wood	\$7,680
26	CB Well pump and pressure tank	\$1,000	6	Sign and post, other	\$6,400
44	DC Asphalt pavement, overlay	\$64,090	14	CB Asphalt pavement, overlay	\$14,656
48	DC Steps, PTL railing	\$1,750	16	CB Concrete flatwork (6% allowance)	\$1,442
59	DC Well pump and pressure tank	\$1,000	19	CBF Fence, 6' PTL, wood board (10% Allow.)	\$1,380
74	LC Shoreline buoy	\$1,100	20	CBF Steel farm gate 10', dog park	\$8,750
89	BP Micro-Bioretenion rain garden allowance	\$6,000	27	MB Flag pole with yardarm, 16'	\$600
111	DC Playground surfacing, wood mulch (3")	\$2,000	29	MB Pavers, sand set, reset (20% allowance)	\$4,800
123	LC PTL wood pole, bracket, light fixture	\$1,800	47	DC Concrete steps (6% allowance)	\$1,050
174	CB Multifunctional copier, medium workgroup	\$1,500	52	DC Wood curb, 10" round pole	\$2,580
175	CB Multifunctional printer, small workgroup	\$900	53	DC Cable guardrail with wood post	\$1,980
176	CB Computer station, desktop (8 gb)	\$2,775	91	MB Playground surfacing, wood mulch (3")	\$5,500
177	CB Network/wireless node	\$2,200	104	MB Bike rack, 9 bikes	\$1,900
186	CB AC split system (5 ton)	\$18,500	121	LC Pier decking, PTL (20% allowance)	\$11,130
			122	LC Bench, PTL wood	\$4,250
			142	CB Door, steel and glass (6'X7')	\$5,590
			143	CB Door sidelights	\$2,800
			159	CB Emergency lighting and exit signs	\$1,050
			185	CB AC split system (2 ton)	\$10,500
Total Scheduled Replacements		\$107,215	Total Scheduled Replacements		\$94,038

Item	2050 - YEAR 26	\$	Item	2051 - YEAR 27	\$
8	Misc. asphalt pavement, crack sealing (allowance)	\$10,000	18	CBF Fence, wood split, 2 rails (10% allowance)	\$2,600
15	CB Asphalt pavement, seal coat	\$2,094	68	LC Batten board groin, refurbish (10% of repl)	\$7,000
40	MB Cobble bar	\$3,200	77	LM Gravel roadway, replenish 3/8" per sf	\$8,505
41	MB Living shoreline (10% allowance)	\$3,000	81	BP Asphalt pavement, seal coat	\$600
42	MB Dune restoration (10% allowance)	\$4,500	83	BP Asphalt drainage flume , seal coat	\$1,125
43	MB Shoreline buoy	\$1,100	84	BP Gravel roadway, replenish 3/8" per sf	\$4,550
45	DC Asphalt pavement, seal coat	\$9,156	85	BP Fence, wood board rails (2-rails and post)	\$6,000
46	DC Asphalt curb	\$1,040	111	DC Playground surfacing, wood mulch (3")	\$2,000
90	MB Playground, border PTL	\$3,250	157	CB Flooring, carpet	\$3,000
92	MB Playground, ADA MP structure, 4 platforms (large)	\$55,000	190	CB Sanitary piping, allowance (PVC)	\$4,800
93	MB Playground, A-frame swing, 2 seat	\$11,200	197	CB Security camera (IP)	\$3,200
94	MB Playground, dome climber large	\$3,800			
95	MB Playground, horizontal ladder (10')	\$4,000			
96	MB Playground, 2 seat teeter totter (6')	\$2,800			
97	MB Playground, spring ride (small)	\$3,300			
98	MB Corn hole	\$900			
99	MB Picnic table (average of metal and wood)	\$15,000			
100	MB Bench, coated metal	\$6,850			
101	MB Bench, PTL wood	\$2,550			
102	MB Grill, charcoal park (pedestal 14" X 20")	\$2,550			
103	MB Trash can, receptacle, and dog waste station	\$9,590			
125	LC Grill, charcoal park (pedestal 14" X 20")	\$1,700			
127	LM Picnic table, wood	\$1,300			
128	BP Picnic table, coated metal	\$5,400			
129	BP Bench, wood	\$1,350			
131	SR Bench, wood	\$1,350			
170	CB Office, desk chair	\$2,250			
171	CB Office, side chair	\$625			
188	CB Water heater, electric (50 gal.)	\$2,600			
Total Scheduled Replacements		\$171,455	Total Scheduled Replacements		\$43,380

PROJECTED REPLACEMENTS

Item	2052 - YEAR 28	\$	Item	2053 - YEAR 29	\$
19	CBF Fence, 6' PTL, wood board (10% Allow.)	\$1,380	55	DC Fence, wood board rails (2-rails and post)	\$1,600
63	LC Asphalt pavement, seal coat	\$3,544	60	DC Water softener	\$1,500
71	LC Dune restoration (10% allowance)	\$4,500	89	BP Micro-Bioretenation rain garden allowance	\$6,000
72	LC Inverted root wad plantings (10% allowance)	\$2,000	116	DC Boat ramp, concrete (6% allowance)	\$1,680
73	LC Oyster reef structures (10% allowance)	\$9,000	176	CB Computer station, desktop (8 gb)	\$2,775
91	MB Playground surfacing, wood mulch (3")	\$5,500	180	CB Restroom, renovate (based on 60 sf)	\$6,000
110	DC Playground, border PTL	\$1,950	181	CB Sink, fixture and mirror	\$2,400
112	DC Playground, MP structure, 3 platforms (small)	\$30,000	182	CB Toilet and stall	\$2,400
114	DC Bench, metal	\$4,110	183	CB Urinal and partition	\$750
Total Scheduled Replacements		\$61,984	Total Scheduled Replacements		\$25,105

Item	2054 (beyond study period)	\$	Item	2055 (beyond study period)	\$
1	Gatehouse/entrance monument, repoint masonry	\$2,200	8	Misc. asphalt pavement, crack sealing (allowance)	\$10,000
11	Misc. stormwater management (10% allowance)	\$5,000	10	Misc. fence, wood split, 2 rails	\$1,040
18	CBF Fence, wood split, 2 rails (10% allowance)	\$2,600	12	Dog waste station	\$2,250
25	CB Well and casing (280' allowance)	\$28,000	15	CB Asphalt pavement, seal coat	\$2,094
29	MB Pavers, sand set, reset (20% allowance)	\$4,800	16	CB Concrete flatwork (6% allowance)	\$1,442
32	MB Fence, 8' vinyl coated chain link	\$24,000	17	CB Wood curb, 6 x 6 PTL	\$2,150
61	DC Well and casing (280' allowance)	\$28,000	19	CBF Fence, 6' PTL, wood board (10% Allow.)	\$1,380
105	MB Deck/Balcony, composite railing	\$3,920	23	Pickup truck replacement	\$50,500
107	MB Deck, composite decking	\$10,440	24	Kubota Tractor B2601 w/loader bucket	\$27,500
111	DC Playground surfacing, wood mulch (3")	\$2,000	35	MB Cable guardrail with wood post	\$3,696
130	BP Grill, charcoal park (pedestal 14" X 20") (min.)	\$1,000	45	DC Asphalt pavement, seal coat	\$9,156
137	CB Siding and trim, composite PVC	\$40,600	47	DC Concrete steps (6% allowance)	\$1,050
187	CB AC split system (2 ton)	\$10,500	50	DC Retaining wall, CMU (repoint)	\$2,040
Total Scheduled Replacements		\$163,060	54	DC Fence, wood split, 2 rails	\$4,160
			91	MB Playground surfacing, wood mulch (3")	\$5,500
Total Scheduled Replacements		\$163,060	Total Scheduled Replacements		\$123,958

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SECTION D - CONDITION ASSESSMENT

General Comments. Miller+Dodson Associates conducted a Reserve Study at Cape St. Claire Improvement Association in July 2023. Cape St. Claire Improvement Association is in generally good condition for a township. Reviewing the Replacement Reserve Inventory will show that we anticipate most components achieving their normal economic lives.

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 how they have been treated in the Replacement Reserve Analysis or Inventory.

IMPORTANT NOTE: This Condition Assessment is based upon visual and apparent conditions of the common elements of the community which were observed by the Reserve Analyst at the time of the site visit. This Condition Assessment does not constitute, nor is it a substitute for, a professional Structural Evaluation of the buildings, amenities, or systems. Miller Dodson 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.

OVERVIEW

Cape St. Clair Improvement Association (CSCIA). Cape St. Claire is a waterfront community located on the Chesapeake Bay at the mouth of the Magothy River and bordered by Deep Creek and the Little Magothy River in Anne Arundel County, Maryland. Cape St. Claire's development began around 1948. [09/30/2023] revised per board



The community comprises 2300 single-family homes, piers, clubhouse, outbuildings, parks, and beaches. The 2300 single-family homes are excluded from the study.

The community also includes the shopping center and pool property but has no economic responsibility for their improvements, and they are also excluded from this study.

We have divided the study into two sub-studies: the HOA (General) and the Pier Committee (Bulkheads and Piers). The Pier Committee study follows the HOA study.

The inventory Condition Statements are grouped by category instead of their related area as they were in the inventory section.



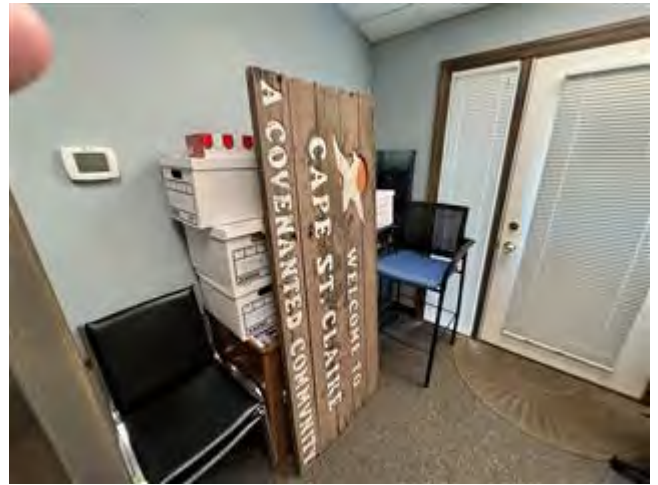
SITE ITEMS

Entry Monument and Signage. The Association maintains entry monuments and monument piers. The Cape Saint Claire Road monument is made of a high-density urethane sign carved to appear like wood and brick piers with pier caps and appears to be in good condition.



We recommend repointing and replacement of defective areas of the masonry as needed. The Association may consider applying a coating of Siloxane or other appropriate breathable sealants to mitigate water penetration and further degradation of the masonry work. The Association may consider applying a sealer to the carved wood sign to mitigate water penetration and further degradation of the wood.

The entrance monument on Green Holly Drive is made of carved wood with pressure-treated bollard piers and appears to be in fair condition, with damaged areas and weathering. We recommend replacement every 10 to 15 years to keep the monument fresh and appealing. We also noted a wood monument sign inside the HOA office, which is not included in this study.



The monument at the clubhouse is made of plastic with pressure-treated bollard piers and appears in good condition.

In addition to monuments, the Association is responsible for community signage, including the community announcement board and informational placards. This study provides an allowance for 16 signs but does not consider other small miscellaneous signs that should be replaced using other funds.



Gatehouse. The Association maintains a historic brick gatehouse. The Gatehouse's roof and structure appear in good condition, the door and windows appear in good condition, and the wood trim showed signs of deterioration and rot (see the Section on Building Exteriors). The interior was not observed. The masonry joints were found to be open in some areas, indicating water penetration into the masonry work, and graffiti is evident in some areas.

The Gatehouse includes the following components:

- Concrete floor (presumed)
- Asphalt shingle roof
- Brick construction
- Wood board trim

- Windows and Doors
- Electric Light Fixture (presumed)
- Electric Service and Meter

Brick masonry is used as the main exterior cladding of the building. As masonry weathers, the mortar joints will become damaged by water penetration. As additional water gains access to the joints, repeated freeze-thaw cycles gradually increase the damage to the mortar joints. If allowed to progress, even the masonry units, such as brick, can have their surfaces affected, and masonry units can become loose.



In general, masonry is considered a long-life item and is therefore excluded from reserve funding. However, because weather and other conditions result in the slow deterioration of the mortar in masonry joints, we have included funding in this study for repointing. Repointing is the process of raking and cutting out damaged sections of mortar and replacing them with new mortar.

Periodic repointing and local replacement of damaged masonry units will limit the damage done by moisture penetration. For this study, we assume that 10% of the masonry will require repointing every ten years after approximately 30 years.

The deterioration rate of the Gatehouse's wood board components will vary with the level of maintenance performed on those components and the exposure to the elements. Gatehouses of this type can be expected to have a service life of 40 years.

We have separated the Gatehouse into individual components in the Reserve Analysis to reflect their different service lives: the roof, the windows and doors, and the trim. The floor and structure of the Gatehouse itself are long-life items and not included in this study.

Asphalt Pavement. The Association is responsible for parking areas and access roadways within the community. Vegetated alleyways are the responsibility of the Association, are predominantly not paved, and several residents have built into and fenced over the alleyways. The City, County, or other municipality maintains other roadways. The Association's asphalt pavements and curbs appear to be in poor condition. We have modeled for curb replacement when the asphalt pavement is overlaid.

The Association maintains an inventory of asphalt pavement along the following streets and areas:

Parking Area and Street Name	sf
Deep Creek Pier, Gateway Drive	36,623
Lake Claire, Lake Claire Drive	14,175
Clubhouse, St. Catherine Drive	8,375
Little Magothy Beach Park, Magothy Park Lane	2,400



The Defects noted include the following:

- **Open Cracks.** There are multiple locations where open cracks allow water to penetrate the asphalt base and the bearing soils beneath. Over time, water will erode the base and accelerate the deterioration of the asphalt pavement. Remove the damaged areas and replace defective materials if cracks extend to the base and bearing materials. As a part of normal maintenance, clean and fill all other cracks.
- **Alligatoring.** There are multiple locations where the asphalt has developed a cracking pattern known as alligatoring. The primary cause of alligatoring is an unstable base. Once these cracks extend through the asphalt, they will allow water to penetrate the base, accelerating the rate of deterioration and eventually leading to

potholes. The only solution is to remove the defective asphalt, compact the base, and install new base materials and asphalt.

- **Improper Grading.** The asphalt pavement is not properly graded, resulting in water ponding. Proper grading of the asphalt pavement will require replacing portions of the asphalt. It may also require resetting improperly sloped curb and gutter segments that are not conveying water to the stormwater management system. If ponding is left unattended, it can result in unsafe travel areas by creating conditions for hydroplaning and pockets of ice to form.
- **Potholes.** Potholes have formed due to full-depth pavement failure, including base materials. The repair will require the removal of the asphalt and base materials, installation and compaction of new base materials, and asphalt resurfacing.
- **Depressions.** There are areas where the asphalt surface is depressed due to deformation in the surface or underlying layers. These depressions may continue to grow with exposure to traffic. Water ponding is evident in several of these areas. Repair of these areas will require the removal of the asphalt and base material and reinstallation by compacting the new base material and resurfacing with asphalt.
- **Edge Cracking.** Asphalt pavement sections have cracks along the edges due to improper confinement. Installation of curbs or installation of a compacted gravel shoulder at the time of an overlay project can address this defect.

A more detailed summary of pavement distress can be found at <http://www.asphaltinstitute.org/engineering/maintenance-and-rehabilitation/pavement-distress-summary/>.



As a rule of thumb, asphalt should be overlaid when approximately 5% of the surface area is cracked or otherwise deteriorated. The normal service life of asphalt pavement is typically 18 to 20 years. Research has shown if installed correctly and with proper maintenance and seal coating the first year and every five years thereafter, asphalt pavement can have a service life of up to 40 years or more.

To maintain the condition of the pavement throughout the community and ensure the longest life of the asphalt, we recommend the Association adopts a systematic and comprehensive maintenance program that includes:

- **Cleaning.** Long-term exposure to oil or gas breaks down asphalt. Because this asphalt pavement is generally not used for long-term parking, it is unlikely that frequent cleaning will be necessary. When necessary, spill areas should be cleaned or patched if deterioration has penetrated the asphalt. This is a maintenance activity, and we have assumed that Reserves will not fund it.
- **Crack Repair.** All cracks should be repaired with an appropriate compound to prevent water infiltration through the asphalt into the base. This repair should be done annually. Crack repair is normally considered a maintenance activity and is not funded by Reserves. Areas of extensive cracking or deterioration that cannot be made watertight should be cut out and patched.
- **Seal Coating.** The asphalt should be seal-coated every five to seven years. For this maintenance activity to be effective in extending the life of the asphalt, cleaning and crack repair should be performed first.

The pricing is based on recent contracts for a two-inch overlay, which reflects the current local market for this work.

For seal coating, several different products are available. The older, more traditional seal coating product is paint. They coat the surface of the asphalt, and they are minimally effective. However, the newer coating materials, such as those from Total Asphalt Management and Asphalt Restoration Technologies, Inc., are penetrating. They are engineered, so to speak, to 're-moisturize' the pavement. Asphalt pavement is intended to be flexible. Over time, the volatile chemicals in the pavement dry, the pavement becomes brittle, and degradation follows as cracking and potholes. Re-moisturizing the pavement can return its flexibility and extend pavement life.

Concrete Work. The concrete work includes the community sidewalks, leadwalks, stairs, stoops, and other flatwork. The concrete work's overall condition appears to be fair, with areas of minor defects, including cracks and damage consistent with its age, that can usually be repaired by replacing the damaged sections. We have excluded the concrete stoops from valuation (below \$1,000). The concrete sidewalks at the clubhouse have a few cracked sections, and the stairs at Deep Creek have scaling. Scaling is the loss of surface cement, exposing the coarse aggregate.



The standards we use for recommending replacement are as follows:

- Trip hazard, ¼ inch height difference.
- Severe cracking.
- Severe spalling and scale.
- Uneven riser heights on steps.
- Steps with risers over 8¼ inches.

Because it is highly unlikely that all of the concrete components will fail and require replacement in the study period, we have programmed funds to replace these inventories and spread the funds over an extended timeframe to reflect the incremental nature of this work.

Brick Pavers. Brick pavers provide a solid, decorative, and renewable surface in the community's Main Beach Park. The overall condition of the brick pavers appears to be in good condition, with areas of defects noted.



The defects noted include the following:

- **Missing aggregate.** In areas where aggregate is missing from the joints between paver units, adding fine aggregate effectively reduces the amount of base soil removed due to water penetration.

To correct defects and provide the longest service life of the unit paver system, periodic re-setting is required. Re-setting allows replacing broken unit pavers, filling in voids in the foundation material, and leveling the surface areas. We have included an allowance for periodic re-setting of those portions of the system.

Brick pavers have a long service life of 30 years or more, provided they are periodically maintained. Eventually, pavers will require large-scale replacement, particularly when identical bricks are no longer available.

Retaining Walls. The Association maintains several wooden and masonry garden retaining walls. At Deep Creek, the wood retaining walls appear to be in mixed fair to marginal condition with light leaning, bowing, deterioration, or rot; the concrete masonry block garden retaining walls appear to be in poor condition with open masonry joints, and at the Main Beach, the segmental block masonry garden walls appear to be in good condition. There is also a large segmental block retaining wall at the shopping center, which is not included in the study.



[09/30/2023] revised per board

Retaining walls, in general, are designed to provide slope stabilization and soil retention using a structural system. Typically, walls that are three feet high or more require some level of design.

The movement and displacement of retaining walls signify general settlement or failure. This typically is in the form of leaning and bowing and can involve the entire wall or localized sections of the wall. Typically, these types of movements

are gradual and may require the replacement of the wall. The movement of retaining walls near other buildings or structures may negatively affect the stability of the adjacent structure. These conditions can become extremely costly if not properly identified, monitored, and addressed.

Wood. Wood retaining walls will experience rot and decay over time, and partial replacement of defective wooden members is often possible in the early stages of decay. Eventually, however, these walls will require replacement. Wood retaining walls can have a useful life of 25 to 35 years. The Association may consider applying a sealer to the wood retaining walls to mitigate water penetration and further degradation of the wood.

Concrete Block. Concrete block masonry walls can have an extended useful life of 40 years or more and, if stable, may only require periodic re-pointing and localized repair. Repoint is raking out defective masonry joints and tooling new mortar into the joints. Properly mortared and tooled joints will repel the weather and keep water from penetrating the wall. Siloxane or other breathable sealants should be considered to protect the wall from water penetration. This study assumes that re-pointing will be performed incrementally as needed to maintain the life of the wall.

Segmental Block Retaining Walls. The Association maintains one segmental block retaining wall at the Main Beach. The retaining wall appears to be in excellent condition. The Association reports that one or two tiers of steps have been buried in the sand from the beach.



Segmental block retaining walls can have an extended useful life and, if stable, are likely to only require localized resetting of displaced blocks, typically near the top of the wall. This study assumes that resetting will be performed incrementally as needed. Segmental block retaining walls can have a service life of 80 years or more.

When and if it becomes necessary to replace these walls, we recommend the Association consider one of the segmental block retaining wall systems. These systems are very low maintenance. If, over time, the wall experiences movement, sections of the walls can be re-stacked at a very small portion of the cost of a new wall. Segmental block retaining walls can have a service life of 80 years or more.

Retaining wall replacement can be costly, and early planning on the Association's part can help reduce the impact of this work on the community's budget in the future. We, therefore, recommend having a Professional Engineer inspect the walls and develop preliminary replacement alternatives and recommendations based on the site conditions, replacement costs, and recommended replacement wall types. This information can then be incorporated into future updates to the Reserve Study.

Fencing. Fencing systems have many configurations and finishes that can usually be repaired as a maintenance activity by replacing individual components as they become damaged or weathered. The pier steel gates are funded under the Pier Committee sub-study.

The Association maintains the following fencing types:

- Wood railing, which appears to be in marginal condition.
- Wood split rail and steel farm gate appear to be in fair to marginal condition at the Dog Park and poor condition at Deep Creek. There seems to be a program for replacing damaged areas.
- Wood rail, which appears to be in marginal condition.

- Wood board appears to be in marginal to poor condition with areas of damaged fence boards or sections.
- Cable and chain bollard guardrail, which appears to be in poor condition.
- Vinyl-coated and galvanized chain links and gates appear to be in good to fair condition.
- Vinyl trash corrals and gates appear to be in good condition.
- Steel fence and gates at the piers appear to be in good condition.





Protection from string machine damage during lawn maintenance can extend the useful life of some fence types. Protection from this type of damage is typically provided by applying herbicides around post bases or installing protective sheathing.

Pressure-treated wood fencing should be cleaned and sealed every year or two. Typically the least-cost fencing option, this type of fence can last 15 to 20 years if maintained properly.

Cedar fencing should be cleaned and sealed every year or two. This type of fence can last 20 to 25 years if properly maintained.

Vinyl fencing made of 100% virgin material can last 30 to 35 years, and periodic cleaning will keep the fence looking attractive. Vinyl components with thicker walls can provide a longer useful life.

Aluminum fencing can have a useful life of 40 years or more. Periodic cleaning and touch-up painting may be required to keep the fence attractive.

Steel fencing can have a useful life of 40 years or more. Periodic cleaning and touch-up painting may be required to keep the fence attractive.

Chain link fencing can have a useful life of 40 years or more. Periodic weed control may be required to protect and maintain the fence.

The Association maintains steel fence posts and fasteners embedded in concrete or masonry.

As part of normal maintenance, we recommend the following:

- Lift or remove ornamental base covers, if applicable.
- Remove the existing caulk completely.
- Clean, prime, and paint all posts.
- Apply an appropriate caulk around each post base.
- Tool and shape caulking to shed water from the post.
- Reinstall base covers, and seal and paint all joints.

Fence posts can have an extended useful life if these simple maintenance activities are performed. If left unattended, the pressure from expansive post rust can crack and damage the supporting material.

Site Lighting. The Association is responsible for operating the community's light poles, including the fishing pier plus the boat pier light poles funded under the Pier Committee sub-study, and ground-mounted floodlights at the entrance monument, all of which appear to be in fair condition. The lights were not on during our site visit, but we understand they remain in good operating condition. Ground-mounted site lights are excluded from valuation in the study.



This study assumes the replacement of the light fixtures every 15 to 20 years and pole replacement every 30 to 40 years. When the light poles are replaced, we presume the underground wiring will also be replaced.

When a whole-scale lighting replacement project is called for, we recommend consulting a lighting design expert. Many municipalities have design codes, guidelines, and restrictions regarding exterior illumination.

Additionally, new technology, such as LED and LIFI, among others, is considered. The Association should consider factors such as environmental sustainability, longevity, and cost when they look at the replacement of their lighting.



Electric Disconnect Stations. Electrical disconnect stations consist of simple circuit breaker boxes and meters to control and monitor site power and lights. The stations are exposed to weather elements and must eventually be replaced. Funding for future replacement has been programmed in the analysis.



[09/30/2023] revised per board

Coastal Erosion Management: Bulkheads, Stone Revetments, Living Shoreline, and Other Erosion Controls. The Association is responsible for shoreline erosion controls in the community. The erosion controls include the following:

- Stone revetment along the common waterfront in several areas of the community (Deep Creek); some appear to be in good condition (installed recently), and some appear to be in poor condition with gaps (older).
- About 200 linear feet of hooked groins and approximately 60 linear feet of straight groin at the Main Beach to control beach erosion sand deposition; some were installed in 2021-2022, and all appear to be in good condition.
- There are about 1,000 linear feet of wooden bulkhead at Deep Creek Pier; some were replaced in 2021-2022 and appear to be in good condition, and some are older and appear in marginal to poor condition with discoloration and rot.
- About 100 linear feet of vinyl baffle bulkhead at Lake Claire boat pier was installed in 2021-2022 and appears in excellent condition.
- There are about 200 linear feet of cobble bar at Main Beach, which appears to have some areas dispersed by waves/storms and appears to be in fair condition.
- About 1,000 linear feet of living shoreline at the Main Beach and Lake Claire. Lake Claire's living shoreline appears to be in good condition. The Main Beach living shoreline appears to be in fair to marginal condition.
- About 32 oyster reef balls submerged at Lake Claire were installed in 2021-2022 and are unobserved.
- About 38 inverted root wads at Lake Claire were installed in 2021-2022 and appear in good condition.



The Pier Committee of the community is responsible for the shoreline erosion controls at the Deep Creek Piers. Still, the Association is responsible for the community boat ramp, which includes a concrete ramp and wooden bulkhead.

- **Bulkheads.** The Association is responsible for a concrete boat ramp with a wooden bulkhead at the Deep Creek piers that is funded in his study. The boat ramp, pier section, and bulkhead appear in fair condition. The vinyl baffle bulkhead at the Lake Clair boat pier is included in this study and appears to be in good condition, and it was installed around 2019. We have included funding in the Reserve Analysis for the periodic replacement of the boat ramp and these bulkheads. We could not observe the bulkheads below the waterline. The remaining boat pier sections and most of the wooden bulkhead are funded under the Pier Committee portion of the study. The Deep Creek pier bulkhead appears to be in mixed good to fair condition.



We recommend that the bulkheads be inspected at least once yearly and immediately following a storm that exposes the walls to significant wave action.

Bulkheads have a rated service life of 50 years.

- **Shoreline Revetments.** The community's Main Beach Park recreation area has a shoreline permeable stone revetment called a cobble bar installed in 2021-2022, and the Association is responsible for its management and maintenance. The revetment consists of cobblestones designed to reduce beach erosion and absorb wave action. We noted some disbursement of the stones, which apparently is by design. The Deep Creek pier has several areas of permeable armor stone revetment with geotextile and core riprap that appear in good condition, with other areas in poor condition with noted gaps.



Stone revetments require a level of engineering design and permitting. Armor and Riprap stone revetments are designed to be durable and long-lasting. Permeable stone revetments, if properly maintained, can have a useful life of 30-50 years; however, proper upkeep of a stone revetment's annual maintenance will help it last decades and possibly a lifetime. The primary cause of shoreline revetment failure is hurricane storm surge, which can undermine the revetment.

Maintenance activities include:

'Periodic maintenance may be necessary to fill holes and maintain the height and width of a revetment. Maintenance activities are required because individual stones comprising revetments may be subject to movement and settling.

Toe protection should be monitored regularly. The steeper a revetment, the more frequently it should be inspected because the toe will likely erode more quickly. Other types of erosion control should be considered in areas where the movement of the structure may occur because of unstable slopes.' dnr.maryland.gov

Because it is highly unlikely that all of the stone revetment components will fail and require replacement in the study period, we have programmed funds to replace 10% of these inventories every 20 years to spread the funds over an extended timeframe to reflect the incremental nature of this work. Based on the Association's experience, future reserve studies should adjust these allowances.

Following are some links to information about Chesapeake Bay coastal erosion, Maryland erosion control guidelines, and a detailed study by the US Army Corps of Engineers about the design of Bulkheads and Revetments.

Coastal Erosion www.mgs.md.gov

Shoreline Erosion Control Guidelines dnr.maryland.gov

US Army Corps of Engineers Design of Sea Walls, Bulkheads, and Revetments www.publications.usace.army.mil

- **Living Shoreline.** 'Living shorelines are the result of applying erosion control measures that include a suite of techniques that can be used to minimize coastal erosion and maintain the coastal process. Techniques may include using fiber coir logs, sills, groins, breakwaters, or other natural components combined with sand, other natural materials, and/or marsh plantings. These techniques protect, restore, enhance, or create natural shoreline habitats.' - Maryland DNR <https://dnr.maryland.gov/ccs/pages/livingshorelines.aspx>



The Association maintains three groins at the Main Beach Park recreation area, which occurs at the shoreline facing the Chesapeake Bay. The groins appear to be in good condition.

- **Groins.** 'Groins generally run perpendicular to the shore, extending into the water from the upper foreshore or beach. All of a groin may be underwater, in which case it is a *submerged groin*. Groins, however, may cause a shoreline to be perceived as unnatural. Groins are generally straight but could be of various plan view shapes, permeable or impermeable, built from wood, sand, stone rubble, gabion, etc.' [Wikipedia](https://en.wikipedia.org/wiki/Groin) 'By design, these structures are meant to capture sand transported by the longshore current; this depletes the sand supply to the beach area immediately down-drift of the structure.' [nps.gov](https://www.nps.gov)



Following is a link to a study of groins and breakwaters:

US Army Corps of Engineers Design of Coastal Groins and Nearshore Breakwaters <https://apps.dtic.mil/sti/pdfs/ADA402518.pdf>

- **Breakwaters.** The Association maintains an oyster reef ball and inverted root wad field at Lake Claire to reduce wave action and beach erosion of the beach barrier at Lake Claire. These controls act more like natural barriers and are less damaging than armor barriers such as bulkheads. The oyster reef balls are submerged and unobserved, and the inverted root wads appear in good condition.



Following is a link to an article about these controls:

ChesapeakeBay.net

(Continued on next page)

RECREATION ITEMS

Playgrounds. The community maintains two playgrounds, one at Deep Creek and the other at the Main Beach. These playgrounds include play structures, miscellaneous play equipment, wood borders, and a wood chip surface. The facilities appear to be in generally good condition with minor wear. The wood chip surface is displaced, missing, and does not appear to be adequate. [09/30/2023] revised per board



The safety of each piece of playground equipment and the layout of the entire play area should be considered when evaluating a playground for safety. The installation and maintenance of the protective surfacing under and around all equipment are crucial. Please note that the evaluation of the equipment and these facilities for safety is beyond the scope of this work.

Information for playground design and safety can be found in the "Public Playground Safety Handbook," U.S. Consumer Product Safety Commission (Pub Number 325). For a link to this handbook, please see our website at www.mdareserves.com/resources/links/recreation.

Our estimates for playground equipment are based on comparing photos of the existing equipment with equipment of a similar size in manufacturers' catalogs. We used the pricing quoted by manufacturers for comparable equipment and added 30% for the disposal of the old equipment and installation of new equipment.

Recreation Items. The community maintains several wooden, metal, and recycled plastic recreation items, such as picnic tables and benches at Deep Creek, Lake Claire, The Main Beach, Little Magothy Pier, and Little Magothy Beach Park.

The recreation items include the following:

- Picnic tables: The picnic tables appear to be in mixed condition.
- Benches: The benches appear in fair condition, with some noted weathering.
- Park grills: The park grills appear to be in fair condition.
- Trash and recycling receptacles: The coated metal trash receptacles appear in good to fair condition, and the wooden recycling corrals appear in good condition.
- Plastic dog waste stations: The dog waste stations appear to be in fair condition, although it is noted that none have trash receptacles.
- Bike racks: The bike racks appear to be in good condition.



Wood Maintenance: A garden hose can clean off surface stains, spills, or mud. Tougher messes on plastic, metal, and wooden outdoor furniture are best tackled with a wet scrub brush and some soap. It's important to take into consideration the materials when cleaning outdoor furniture. For example, it is not recommended to power wash wooden outdoor furniture, as this will put unnecessary wear and tear on the softer wood finish. A better option would be to use an oil-based soap designed specifically for wood, which will clean and protect wooden parts.

Metal Maintenance: Another material commonly used in outdoor furniture that can require special care is metal. Metal furniture often comes pre-coated to protect against rust, but this finish can eventually wear off. It's best to buff away rust with steel wool and refresh the anti-rust coating for future protection. In-ground mounted metal bases should have mounting pockets caulked flush if in concrete or masonry to prevent the rusting of the posts.

Recycled Plastic. Plastic products are made of recycled plastic from waste materials. This type of furniture is not painted, does not rust, and is very durable. The material is stronger than the regular plastic material, is resistant to the effects of the weather, and does not fade in color. Recycled plastic furniture, unlike wood, is also resistant to mold, fungus, insects, termites, and rotting. When it comes time to replace the outdoor furniture, the community may wish to consider recycled plastic. **Maintenance:** Recycled plastic is easy to clean, is smooth, does not hold water to its surface, and dries quickly.



Trash Cans. The community maintains perforated metal trash cans that appear in good to fair condition.



Maintenance: No matter how much trash your community generates, it will periodically need to clean the trash cans. **Trash can maintenance tips:** Place Bins out of Harm's Way. One of the quickest ways to prematurely damage trash bins is to place them where they are at risk of being struck by or backed into by a vehicle. Take care to position trash cans where they will not be battered by mobile riding lawn mowing equipment.

Cleaning: For easy cleaning, always place a batch of extra garbage bags at the bottom of trash cans. This will make cleaning the trash can easier as no liquid will be left on the trash can when the garbage is emptied. After emptying the trash cans, rinse out the trash cans with water outside with a garden hose. Different cleaning solutions, odor-absorbent powder, and fragrant bags can help remove traces of odor. After that, thoroughly rinse the trash can and tip it upside down to drip dry. Before putting new trash into the trash can, make sure another batch of extra garbage bags is in the bottom. Bins will require a frequent cleaning schedule.

Emptying Schedule: Trash generation and when bins need to be emptied vary by location. Low frequency can result in recyclable material or trash entering overflowing bins or onto the ground. Properly selecting and maintaining trash cans are important considerations for managing waste in the community.

Dog Waste Stations. The community has dog waste stations on the property. They must receive regular professional maintenance. Stations will need dog waste bag replacements and the trash liner renewed to meet the demands of the residents.

Bike Racks. The community has two bike racks that appear to be in good condition.



Decks. The Association maintains the wooden and composite deck of the community Main Beach area. The wooden deck structures appear to be in good condition, with the composite decking and the composite railings appearing to be in excellent condition.



We recommend that the Association implement an annual inspection program. We also recommend power washing every two to three years. Installation of carpet or other water-trapping coverings should be prohibited, and potted plants should be placed on raised feet to allow for proper air circulation and drying of wooden components.

When installing new decking, 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.

This study assumes that the entire decking system will be replaced at one time.

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.

Wood Piers. The Association operates one wood fishing pier. The pier is constructed from pressure-treated lumber supported by wood pilings. The pier is over 30 years old. We presume new pier surfaces and railings were installed approximately ten years ago for the study. The other piers are funded under the Pier Committee study that follows this study.



Wood Pier Decking. The wood decking on the piers and the wood walk are exposed to harsh sun and weather extremes. It will typically require replacement before the heavier members of the underlying structure. This decking will also be removed and replaced when the underlying structure is replaced. To model this replacement pattern, we have provided a 20% allowance for replacement incident to replacement of the structure at a time, and we have included an additional replacement interval for the wood pier decking at the midpoint of the service life of the underlying structure.

The wood pier decking appears to be in good condition.

Pier Structure. The structure consists of pressure-treated woodpiles on 10-foot centers with stringers spanning the distance between piles. We have assumed that when the 20% allowance of the pier structure requires replacement, all those pilings will also be replaced; however, we are modeling it that way based on replacing the sections of pilings, structure, and decking on an as-needed basis.

The pier structure appears to be in good condition.

Pier Utility Systems. The pier includes lighting. We have assumed that the lighting systems will be removed and replaced when the pier structure is replaced. We have also assumed that the systems will be replaced at the midpoint of the service life of the pier structure.

The pier utility systems are reported to be in good operating condition. The lights were not on during the survey. This study does not include testing and inspection of pier utility systems.

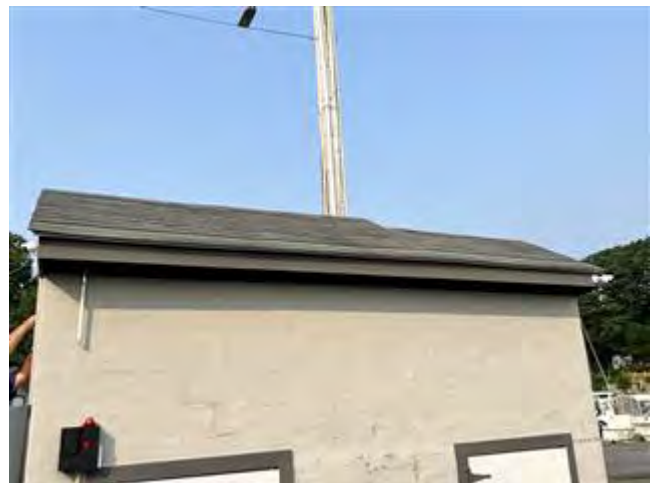
It is recommended that all piers be inspected at least once each year to identify damage to pilings, structural members, surface boards, and railings.

Boat Ramp. The Association maintains approximately 700 square feet of concrete boat ramp at the Deep Creek pier area. The Boat Ramp is constructed of poured concrete. The Boat Ramp's age is unknown and it appears in fair condition.



EXTERIOR ITEMS

Building Roofing. The buildings have asphalt shingle roofs that appear in good condition. We noted some shingles curling.



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 indicate they may be nearing the end of their useful life.

Access to the roof was not provided at the time of inspection.

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



Gutters and Downspouts. The clubhouse has aluminum gutters and downspouts. The gutters and downspouts appear to be in good condition.



A gutter and downspout system will remove rainwater from the area of the building's roof, siding, and foundation and protect the exterior surfaces from water damage. Gutters should run the entire length of all drip edges of the building's roof. Even with full gutters, it is important to inspect the function of the gutters during heavy rain to identify any deficiencies. It may be necessary to periodically adjust the slope of sections, repair connections, replace hangers, and install shrouds to the gutter system. Downspouts should be securely attached to the side of the structure. Any broken straps should be replaced. The area of the outlet should be inspected to promote run-off in the desired direction. Long straight runs should have an elbow at the bottom. Splash blocks should be installed to fray the water outletting from the downspout.

It is recommended that all gutters be cleaned at least twice each year. If many trees are located close to a building, consider installing a gutter debris shield to let water into the gutters but filter out leaves, twigs, and other debris.

It is recommended that gutters and downspouts be installed on all buildings. It is also recommended that the discharge from the downspouts be extended at least ten feet away from the foundations.

Siding and Trim. The exterior of the clubhouse building is clad in vinyl or PVC siding and trim. The siding and trim materials generally appear in good condition. Replace damaged siding sections as discovered and replace caulk when it cracks or separates from the substrates.

Vinyl Siding. Vinyl siding is an effective and durable weather barrier typically installed over a dampproof wall or house wrap in overlapping and interlocking sheets. Vinyl siding has a high coefficient of expansion and contraction when the

ambient temperature changes. The installer should accommodate movement at the time of installation. Vinyl will get dull over the years; however, the color goes through the product. Periodic cleaning can improve the appearance. We do not recommend painting.

Vinyl siding and trim can have an extended useful life if not damaged by impact, heat, or other physical reasons. The coatings and finishes typically have a useful life and begin to weather, discolor, and show their age over time. For these reasons, we have modeled replacing the siding and trim every 35 years. See <http://mdareserves.com/resources/links/building-exterior> for additional information.



Siding materials need proper clearances between the finish grade and the siding, a minimum of 2 inches, regardless of the type of siding. This requirement is not just to prevent damage to the siding; it also serves a couple of other functions.

- Maintaining proper clearances reduces access to wood structures behind the siding by wood destroying insects or damage from water that might find its way behind the siding.
- Clearances allow for a visual inspection of the area to determine the type of foundation, flashings, and whether insects are moving into the structure behind the siding.

Vinyl Soffit. The Association maintains vinyl clubhouse roof eave soffits. The vinyl soffits appear to be in good condition.



(Continued on next page)

Wood Materials. Wooden exterior materials are typically repaired as needed during normal painting cycles. Painting cycles for wooden exteriors vary between five and ten years depending on the wood grade, the materials' quality, and the finished work. We have programmed the funds to replace deteriorated and damaged sections of wood trim as they were discovered during the painting and caulking activities. The Association gatehouse has rotted sections of wood trim at the fascia. The wood gable vents need to be maintained and painted.



The Association maintains the exterior wood trim incorporated into the garage, gatehouse, and pumphouses. The Association may consider replacing failed trim sections with composite or capped PVC materials.

Following are some available composite, cement, and synthetic alternatives to wood trim:

Synthetic products are commonly used in decorative architectural details. Today, these are predominantly made of Polyvinyl-chloride or (PVC). In the past, PVC was known to have degradation problems with sunlight, particularly ultraviolet (UV) radiation. Now, most PVC trim products have UV stabilizers in them.

Composites. 'Capped Composite material has an inner core of recycled wood and plastics. As its name suggests, the core of the composite is then "capped" by a PVC shell that helps protect it from the elements. Capped Composite material is generally made from 75-95% recycled material. The top Capped Composite brands are Trex, TimberTech, and Fiberon.

PVC. Capped Polymer – made with 100% PVC (Polyvinyl Chloride) – contains no wood fibers. The synthetic material is incredibly durable. Installation requires more skill than Capped Composite, but it's more resistant to staining, fading, and scratching over time. Since Capped Polymer material is 100% plastic, it expands and contracts during temperature changes slightly more than Capped Composite material. Trusted Capped Polymer brands include Azek and Zuri.'

Source [Timbertown.com](https://www.timbertown.com)

FRP Structural Fiberglass and Composite Columns. Load-bearing decorative columns are often made from Fiberglass-Reinforced Polymer (FRP). In addition to being load-bearing, most FRP columns are weather-resistant and insect-proof. Structural FRP columns are hollow and are usually a composite of dust, sometimes marble dust, fiberglass, and several other materials that give the column strength and rigidity. The walls are approximately 3/8" -5/8" thick, typically have a limited lifetime warranty, and are less expensive than most exterior-grade wood columns. Some FRP columns can also meet building code flame and smoke spread requirements. FRP Columns are available in various shapes and sizes, including custom designs to match existing architecture.

PVC Structural Columns. Round, boxed, and tapered square columns are also available in PVC. Structural PVC columns have aluminum inserts and are rated up to 18,000 pounds.

Windows and Doors. The Association is responsible for the common windows and exterior doors of the clubhouse, gatehouse, and pumphouses.

The windows and doors appear to be generally in good condition.



Window and door units are integral to a facility's 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. These units can have a useful life of 20 to 35 years or more, depending on their use and other factors mentioned above.

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. Warranties and advantages in 'economy of scale' can often result in lower overall replacement costs and more reliable results. Lastly, coordinated replacements offer the opportunity to correct initial construction defects and improve the effectiveness of details with improved construction techniques and materials.

Pumphouses and Wells. The Association maintains two pumphouses with wells located at Deep Creek and Lake Claire, which appear to be in good condition and serve wells, submersible jet pumps, pressure tanks, and at Deep Creek, a water softener, which are all reportedly in good operating condition. The pumphouses are concrete block construction with asphalt shingle roofs and wood entrance doors. The pumphouse at Lake Claire has cement parging on the exterior of the concrete block structure.

The life expectancy of wells is highly variable. It depends on several factors, including the general geographic location of the well, the local groundwater conditions, seasonal fluctuations in the local water table, the mineral level and type of minerals in the water supply, and the type of well. For this study, we have assumed a 50-year life for the well structure, and the service life for most well pumps is 15 years.



Compressor Building. The Association maintains a utility building at Deep Creek that houses an air compressor, electrical service, panels, security cameras, and a recorder. The building is constructed of cement block with an asphalt shingle roof and wood siding, trim, and doors that appear to be in fair condition.



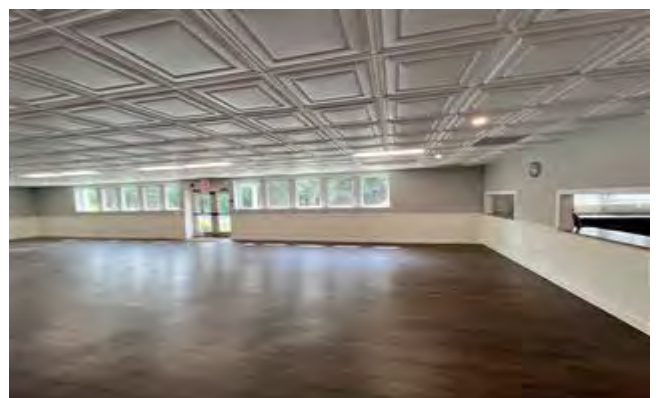
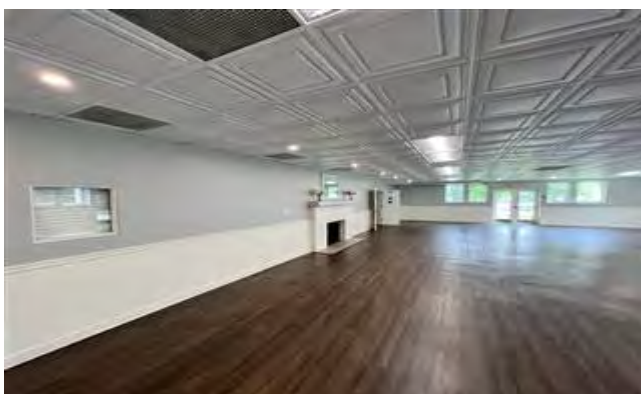
INTERIOR ITEMS

Common Interiors. The Association maintains the Clubhouse interiors, including the main hall, lobby, kitchen, offices, restrooms, corridors, and other common interior spaces, all of which appear to be in excellent condition.



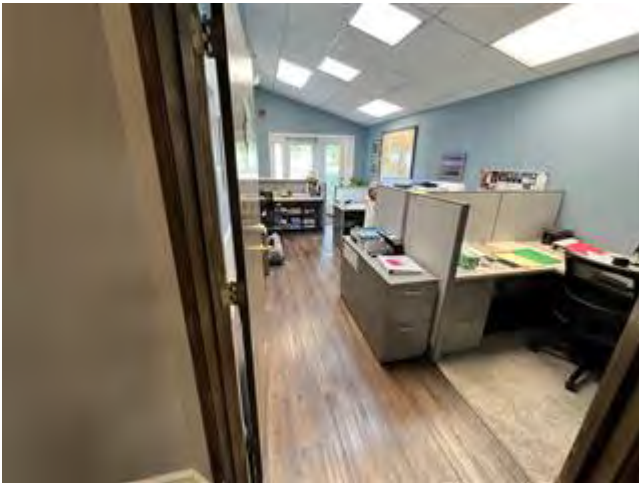
We have assumed that the Association will want to maintain these areas in a commercially acceptable condition. Typically, replacement cycles for common interior spaces vary between 5 to 10 years, depending on the aesthetic tastes of the community, usage, and construction. Material selection and the community's preferences are the major factors in setting the reserve components for items such as refurnishing and interior refurbishment. The Association will need to establish these cycles as these facilities age. Maintaining historical records and incorporating these trends and preferences into a future Reserve Study update is the best way to adjust for these cycles.

Main Hall. We have included the following items in the analysis: furnishings, laminate wood flooring, ceiling tile, light fixtures, and exit lights, which all appear in excellent condition.





Offices. The Association maintains the offices. We have included the following items in the analysis: furnishings, office equipment, carpet, and light fixtures, which all appear to be in excellent condition.



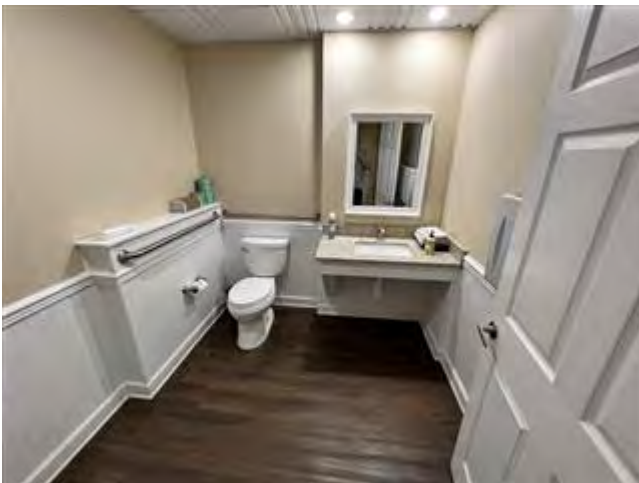
Kitchen. We have included the following items in the analysis: furnishings, appliances, sink and faucet, base and wall cabinets, solid surface countertops, exit lights, and laminate or engineered wood flooring, which all appear in excellent condition.



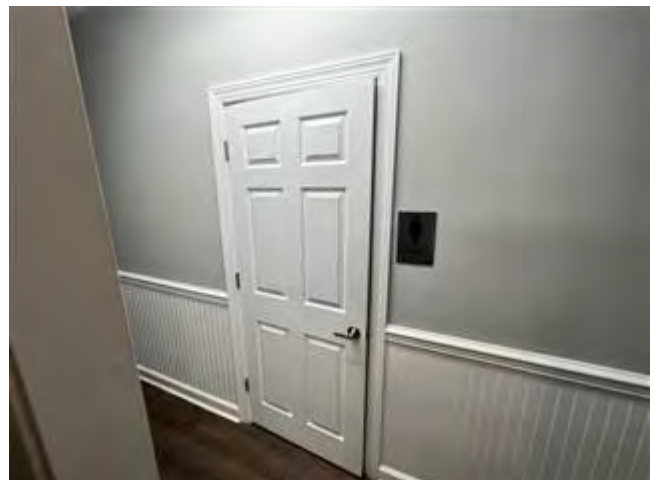
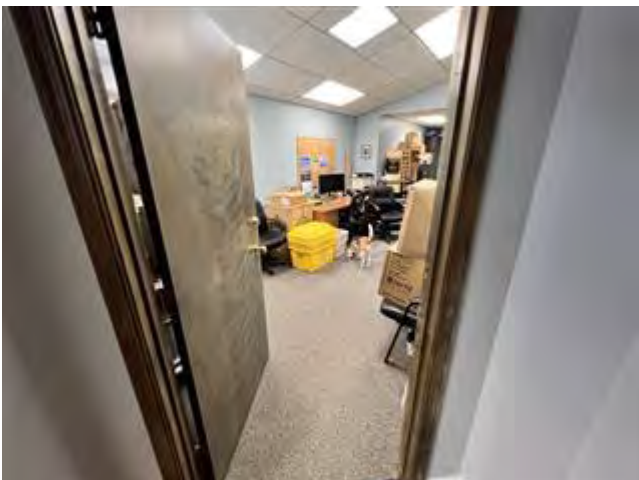
Corridors. We have included the following items in the analysis: laminate wood flooring, lighting fixtures, and emergency and exit lights, which all appear to be in excellent condition.



Restrooms. We have included the following items in the analysis: fixtures, laminate wood flooring, mirrors, lighting fixtures, and exit lights, which all appear to be in excellent condition.



Interior Doors. The doors and frames are currently in good condition. Recommended maintenance includes inspecting all six sides of the door at least once a year and recoating the doors every five years or as needed to keep these doors in good shape for the lifetime of a building. We have not included interior doors in this study.



The items included in the analysis are listed below:

Furnishings. We have included the furnishings in the Reserve Analysis. We have assumed that the service life for the furniture is between 10 and 21 years and that it will be replaced with similar items.

Appliances. We have included the appliances in the Reserve Analysis. We have assumed that the service life for the appliances is 21 years and that they will be replaced with similar items.

Office Equipment. We have included the office equipment in the Reserve Analysis. We have assumed that the service life for the furniture is between 5 and 21 years and that it will be replaced with similar items.

Carpet. We have included the carpet in the Reserve Analysis. The commercial carpet of this construction in this type of application has a typical service life of 7 years, and sections are replaced as needed.

To extend the carpet's life, the Association must continue with a comprehensive maintenance program that includes regular vacuuming, spot and spill removal, interim cleaning of high-traffic areas, and regularly scheduled cleanings. It is also recommended that all entrances be fitted with walk-off mats to trap soil.

Engineered Hardwood Flooring. Engineered hardwood flooring consists of multi-layered plywood or fiberboard core glued together and covered with a hardwood veneer top layer. This type of flooring is more resistant to moisture than hardwood flooring. Depending on the application and the level of traffic the floor is exposed to, hardwood floors can be expected to have a service life of 20 to 30 years.

Laminate Wood Flooring. Laminate wood flooring offers the advantage of a resilient, durable floor surface that requires little maintenance. The top layer of the flooring is a photographic layer designed to mimic the appearance of wood flooring. While this layer is resistant to scratches and wear, it will eventually become damaged due to surface scratches. Since laminate wood floors cannot be sanded or refinished, the only option is replacement once the wear layer has been damaged. Depending on the application and the level of traffic that the floor is exposed to, laminate wood floors can be expected to have a service life of 15 to 20 years.

Lighting: The Main Clubhouse lighting includes exterior wall sconce general entry, fluorescent, wall-mounted emergency, and exit lighting, all of which appear to be in good condition.

Emergency Light Fixtures. The building uses battery-powered light fixtures for emergency lighting during a power outage. The fixtures are equipped with LED light sources. The fixtures appear to be in good condition. Fixtures of this type have a typical service life of 20 years.

Emergency light fixtures are required on an irregular and infrequent basis. Frequently, fixtures fail to operate when needed due to failed components that have gone unnoticed. Therefore, we recommend that the Association have all emergency light fixtures tested regularly every 3 to 6 months.

Exit Lights. The building uses illuminated exit lights at each of the exits. The exit lights appear to use LED light sources. The general condition of the building's exit lights appears good.



BUILDING SYSTEMS

Building Systems. The Association maintains the Clubhouse building systems.

Listed below are the major components of the building:

- HVAC
- Plumbing
- Electrical
- Fire Alarm
- Security system, with security cameras and recorder.

Split and Package HVAC Systems. The facility's heating, ventilation, and air conditioning (HVAC) systems are reported to be in good operating condition. Detailed inspection and testing of these systems are beyond the scope of this study.



The Association maintains several HVAC systems that use one of the new-generation refrigerants. Unlike the old R22 refrigerant, the new refrigerants are expected to be available throughout this study. However, the operating pressure for new refrigerant systems is approximately twice as high as for older systems. Many standard components have not been redesigned for these higher pressures, including the coils, which generally fail due to metal fatigue.

Even though manufacturers continue to predict 15 to 20-year life cycles for HVAC equipment that use these new refrigerants, historical data does not prove this. We, therefore, recommend anticipating a normal economic life of 15 years for all HVAC equipment that uses pressurized refrigerants of these types.

In addition, the Association maintains air handlers/furnaces throughout the facility (presumably in the attic), and these components can have a useful life of 20 to 40 years. With fan, motor, and coil replacements performed as needed, the casings of these systems can last significantly longer.

Building Piping. CPVC supply piping is presumed to be used in the clubhouse building's main service piping. A well, pump, and pressure tank serve the building. These lines should be replaced as needed, and we included an allowance in this study. We also included the water heater in the study, which appears to be in good condition.





- CPVC (Chlorinated Polyvinyl Chloride). CPVC is generally light brown or beige. CPVC is a rigid plastic pipe made from modified PVC resin that is similar to the plastic piping commonly used for pressure, irrigation, and DWV applications, but it is engineered for use with higher temperatures. It doesn't corrode or develop pinhole leaks, is chlorine-resistant, and assembles easily using solvent-cemented fittings.

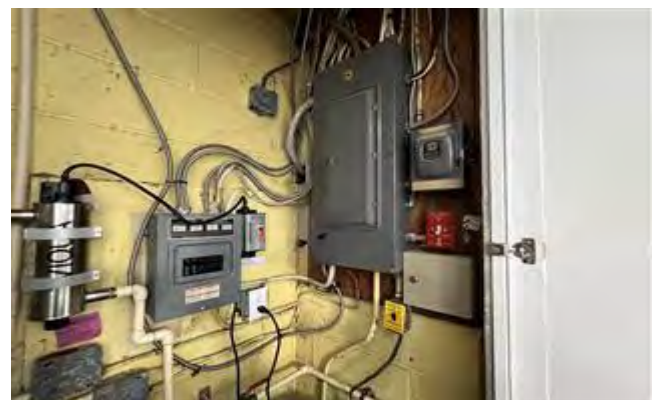
CPVC has superior high-temperature and long-term pressure capabilities and is approved for potable hot and cold water plumbing systems in all plumbing and mechanical codes across the U.S. For the plastic water and sanitary lines, it is unlikely that these will fail during the period of this study. We have provided an allowance for replacement cost for approximately .05% of the plumbing laterals. The allowance is based on our experience with other communities of similar size, on our inspection of the visible components while on site, and on the industry-rated life expectancy of the piping

- Copper Piping. As a result of differences in water chemistry, well water piping has been developing pin-hole leaks, which lead to high maintenance costs and a significantly shorter normal service life.
- PVC (DWV) Drain lines. Polyvinyl chloride, commonly abbreviated PVC plumbing, is utilized as DWV piping. DWV stands for the drain-waste-vent system and is designed to carry household wastes to a public sewer system and to vent the system above the roof. PVC is widely used for DWV piping due to its long, dependable life expectancy.

Please note that the timeframe for repiping a facility can vary widely, and the estimation of the remaining economic life is highly speculative. Given the facility's age, the Association should know the various technologies available for pipe replacement and pipelining, including traditional pipe replacement, replacement with CPVC and other synthetic pipes, and linings from companies such as Ace Duraflo and Curaflo. However, Miller+Dodson does not endorse any specific process or company.

To better understand the condition of this facility's pipes and water supply lines, we recommend performing an expert evaluation of the piping. This evaluation should estimate the piping systems' remaining useful life, the water supply's condition, and recommendations for replacement to maximize the remaining useful life of this facility's piping systems.

Building Primary Electrical Service and Switchgear. The building's primary electrical service and switchgear include the facility's incoming service equipment, meters, transformers, and distribution equipment panelboards, disconnects, relays, fuses, and circuit breakers. Electrical switchgear has a rated service life of 50 years or more. The electrical systems of the building are reported to be operating normally, and the overall condition of the switchgear appears to be good. We have included funding in the Reserve Analysis for distribution panel replacement.





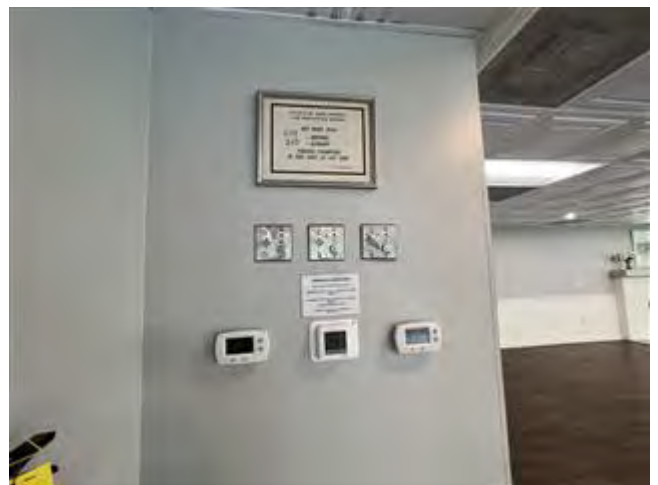
Other than transformers and meters and if protected from water damage or overloading, interior electrical systems within a building, including cabinets, troughs, conduit, junction boxes, feed lines, cable, and wire, are considered long-life components and, unless otherwise noted, are excluded from this study.

Electrical switchgear requires ongoing maintenance for proper operation and reliability. To maintain this equipment properly, periodic tightening of all connections is recommended every three to five years. Insurance policies may sometimes have specific requirements regarding tightening electrical connections.

The primary electrical service and switchgear date to the original construction of the building, and we understand that replacement parts are still available for the equipment. As the switchgear continues to age, obtaining replacement parts can be expected to become more difficult. When parts are no longer available or when the condition of the switchgear deteriorates sufficiently, the Association will have to replace or upgrade the existing equipment.

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

Fire Safety Systems. The building has a fire safety system with a fire alarm control panel, duct detectors, pull stations, and alarms, which are reported to operate normally. Testing and inspection of fire safety systems are not included in this study.



Building fire alarm systems have a service life of 15 to 25 years. While the panels may continue to operate past this point, changes in fire safety technology and building fire safety codes tend to render them obsolete. In addition, manufacturers only support their systems for a limited period, typically about 15 years. After this time, it may be increasingly difficult to obtain replacement parts and services. When upgrading the fire alarm system, changes in the technologies and new code requirements will likely require upgrades in lighting, sensors, alarms, and other systems and sub-components.

We recommend having your entire fire safety system inspected and evaluated by a professional in this field who is familiar with your area of the country. In addition, a comprehensive preventative maintenance program will ensure the maximum possible useful life from these components, and a qualified professional can help set up and implement such a program.

Your local CAI chapter may have a service provider list on their website that may refer you to a local fire and life safety consultant. As an alternative, please get in touch with our office, and we will provide recommendations.

As a preliminary estimate, we have provided an allowance every 15 years for the major repair and upgrade of the fire safety systems. A detailed evaluation of the facility's fire safety system should include an estimate of reserve funding for these components, and this funding estimate should be incorporated in the next reserve study update. Inspections and annual maintenance work are not accounted for or included in this study.

Security System. The Association maintains a security surveillance system to monitor access to the Clubhouse building. The building has a video-based security system with cameras installed at various locations in and around the building. The system records images on a hard drive. Electronic security represents a proactive approach to safeguarding occupants and property.



The service life for systems of this type is 15 years. While many of the system's components may function well beyond that point, the community will experience difficulty obtaining replacement parts and services for the system. Most manufacturers do not support hardware or software beyond this timeframe. We have provided an estimate of the approximate replacement cost based on our experience with other communities of similar size and our inspection of the visible components while on site.

The current system is very modern. The circuitry and technology are part of a hi-tech industry that will improve over time and make these systems obsolete. Even if the system still functions adequately, replacement is inevitable. At the time of replacement, a 360-degree assessment of vulnerabilities, threats, and needs should be performed to design a new system that matches the operating needs of the facility.

For the system to function as designed, the following should be practiced:

- Manage inventory and issuance of access keys.
- Maintain electronically actuated door hardware and associated door hardware so that all doors release when activated and fully close thereafter.
- Perform operational testing of cameras and recorders.
- Establish and maintain a relationship with a 24-hour monitoring service.
- Establish a call list for security emergencies and test them periodically.

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

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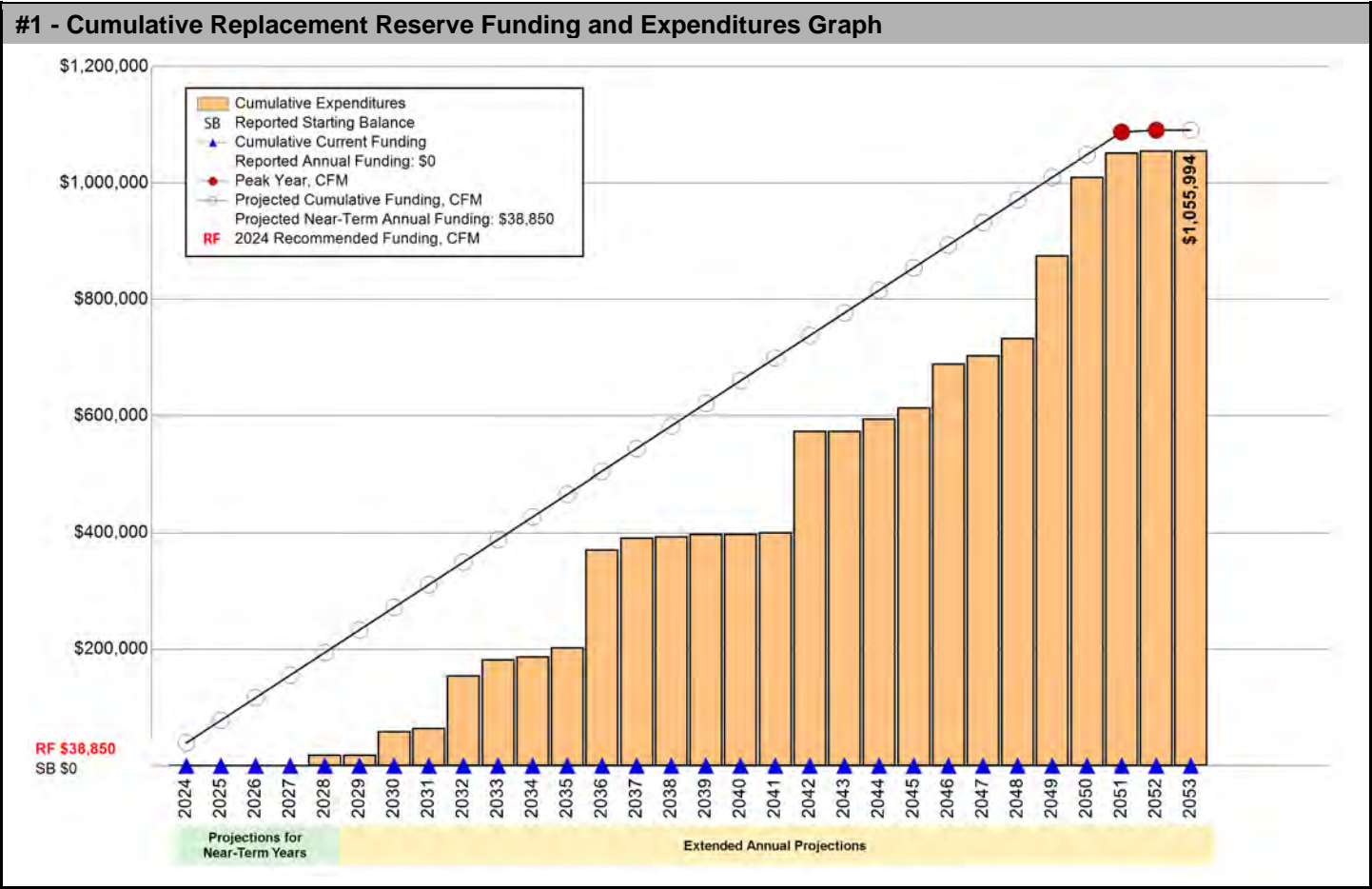
SECTION A - FINANCIAL ANALYSIS

The Cape St. Claire - Pier Committee at Deep Creek, Lake Claire, and Little Magothy Pier (DC, LC, & LM) Replacement Reserve Analysis uses the Cash Flow Method (CFM) to calculate Replacement Reserve funding for the periodic replacement of the 43 Projected Replacements identified in the Replacement Reserve Inventory.

\$38,850 **RECOMMENDED REPLACEMENT RESERVE FUNDING FOR THE STUDY YEAR, 2024**
\$13.84 Per unit (average), minimum monthly funding of Replacement Reserves

We recommend the Association adopt a Replacement Reserve Funding Plan based on the annual funding recommendation above. Inflation adjusted funding for subsequent years is shown on Page A1.5.

Cape St. Claire - Pier Committee at Deep Creek, Lake Claire, and Little Magothy Pier (DC, LC, & LM) reports a Starting Balance of \$0 and Annual Funding totaling \$0, which is inadequate to fund projected replacements starting in 2024. See Page A1.3 for a more detailed evaluation.



The significant increase in the Recommended Annual Reserve Funding shown above is not unusual for community associations for whom this is their first professional Replacement Reserve Study. We recommend that the Association increase its Reserve Funding level as soon as possible. Given the high rates of inflation in today's construction industry, the longer that the Association delays in adequately funding its Reserves, the harder it will become to make up for the underfunding. Furthermore, delaying this increase will place an unfair financial burden on long-term and future owners, and may adversely affect property values. (See Supplemental Notes on Maryland Law HB-107 on Page A.6.)

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

Cape St. Claire - Pier Committee at Deep Creek, Lake Claire, and Little Magothy Pier (DC, LC, & LM)

October 04, 2023

REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION

The Cape St. Claire - Pier Committee at Deep Creek, Lake Claire, and Little Magothy Pier (DC, LC, & LM) Replacement Reserve Analysis calculations of recommended funding of Replacement Reserves by the Cash Flow Method (CFM) and the evaluation of the Current Funding are based upon the same Study Year, Study Period, Beginning Balance, Replacement Reserve Inventory and Level of Service.

2024 STUDY YEAR

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

30 Years STUDY PERIOD

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

\$0 STARTING BALANCE

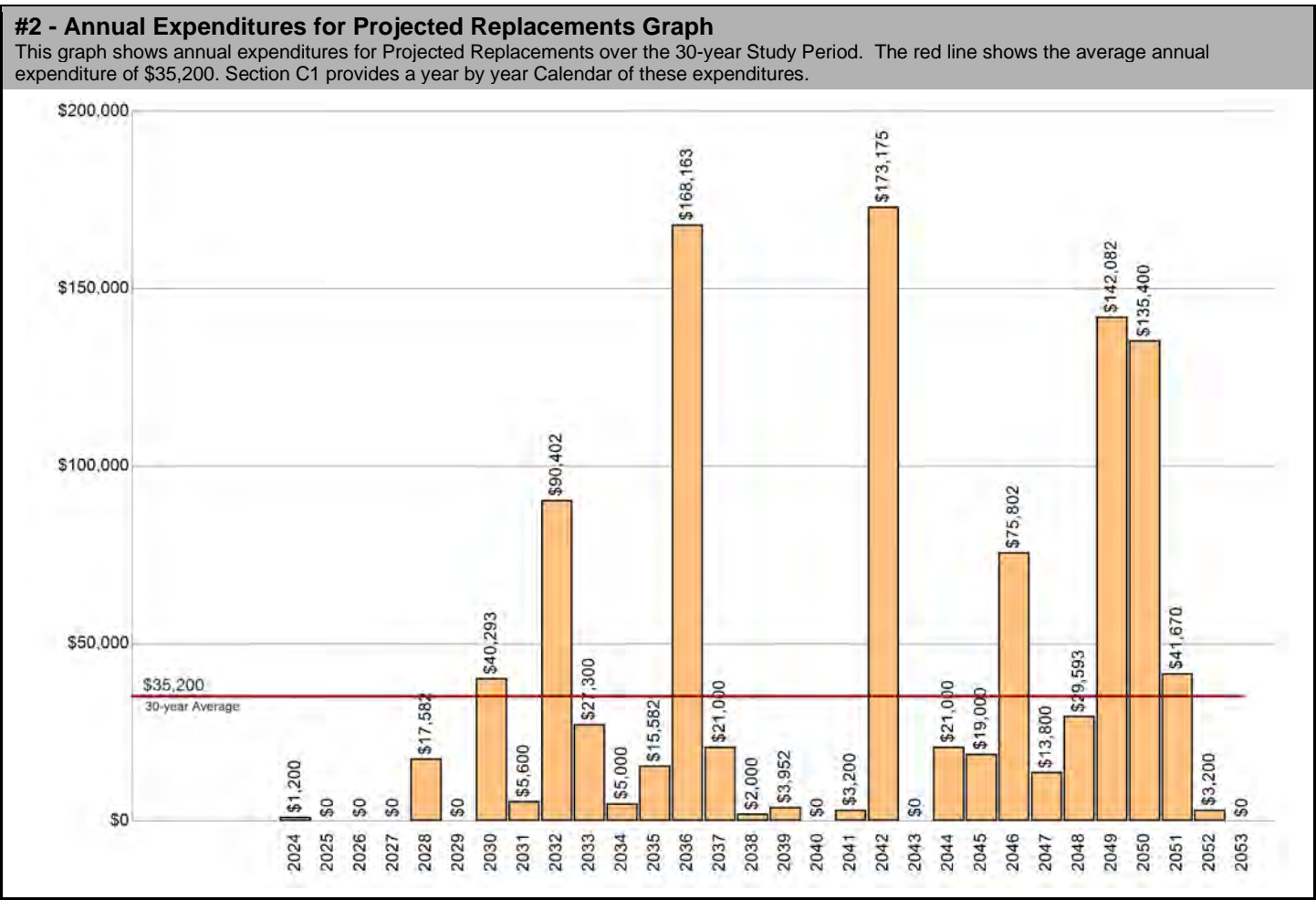
The Association reports Replacement Reserves on Deposit totaling \$0 at the start of the Study Year.

Level One LEVEL OF SERVICE

The Replacement Reserve Inventory has been developed in compliance with the National Reserve Study Standards for a Level One Study, as defined by the Community Associations Institute (CAI).

\$1,055,994 REPLACEMENT RESERVE INVENTORY - PROJECTED REPLACEMENTS

The Cape St. Claire - Pier Committee at Deep Creek, Lake Claire, and Little Magothy Pier (DC, LC, & LM) Replacement Reserve Inventory identifies 43 items that will require periodic replacement, that are to be funded from Replacement Reserves. We estimate the cost of these replacements will be \$1,055,994 over the 30-year Study Period. The Projected Replacements are divided into 1 major categories starting on Page B1.3. Pages B1.1-B1.2 provide detailed information on the Replacement Reserve Inventory.



Cape St. Claire - Pier Committee at Deep Creek, Lake Claire, and Little Magothy
Pier (DC, LC, & LM)

October 04, 2023

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 on Page A1.4 and A1.5. The Projected Replacements listed on Page C1.2 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. Inflation Adjusted Funding is discussed on Page A1.5.

UPDATING OF THE REPLACEMENT RESERVE STUDY

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 the Inflation Adjusted Funding of Replacement Reserves on Page A1.5.

ANNUAL EXPENDITURES AND CURRENT FUNDING

The annual expenditures that comprise the \$1,055,994 of Projected Expenditures over the 30-year Study Period and the impact of the Association continuing to fund Replacement Reserves at the current level are detailed in Table 3.

#3 - Table of Annual Expenditures and Current Funding Data - Years 1 through 30										
Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Starting Balance										
Projected Replacements	(\$1,200)				(\$17,582)		(\$40,293)	(\$5,600)	(\$90,402)	(\$27,300)
Annual Deposit										
End of Year Balance	(\$1,200)	(\$1,200)	(\$1,200)	(\$1,200)	(\$18,782)	(\$18,782)	(\$59,075)	(\$64,675)	(\$155,077)	(\$182,377)
Cumulative Expenditures	(\$1,200)	(\$1,200)	(\$1,200)	(\$1,200)	(\$18,782)	(\$18,782)	(\$59,075)	(\$64,675)	(\$155,077)	(\$182,377)
Cumulative Receipts										
Year	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Projected Replacements	(\$5,000)	(\$15,582)	(\$168,163)	(\$21,000)	(\$2,000)	(\$3,952)		(\$3,200)	(\$173,175)	
Annual Deposit										
End of Year Balance	(\$187,377)	(\$202,959)	(\$371,121)	(\$392,121)	(\$394,121)	(\$398,073)	(\$398,073)	(\$401,273)	(\$574,448)	(\$574,448)
Cumulative Expenditures	(\$187,377)	(\$202,959)	(\$371,121)	(\$392,121)	(\$394,121)	(\$398,073)	(\$398,073)	(\$401,273)	(\$574,448)	(\$574,448)
Cumulative Receipts										
Year	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Projected Replacements	(\$21,000)	(\$19,000)	(\$75,802)	(\$13,800)	(\$29,593)	(\$142,082)	(\$135,400)	(\$41,670)	(\$3,200)	
Annual Deposit										
End of Year Balance	(\$595,448)	(\$614,448)	(\$690,250)	(\$704,050)	(\$733,642)	(\$875,724)	(\$1,011,124)	(\$1,052,794)	(\$1,055,994)	(\$1,055,994)
Cumulative Expenditures	(\$595,448)	(\$614,448)	(\$690,250)	(\$704,050)	(\$733,642)	(\$875,724)	(\$1,011,124)	(\$1,052,794)	(\$1,055,994)	(\$1,055,994)
Cumulative Receipts										

EVALUATION OF CURRENT FUNDING

The evaluation of Current Funding (Starting Balance of \$0 & annual funding of \$0), is done in today's dollars with no adjustments for inflation or interest earned on Replacement Reserves. The evaluation assumes Replacement Reserves will only be used for the 43 Projected Replacements identified in the Replacement Reserve Inventory and that the Association will continue Annual Funding of \$0 throughout the 30-year Study Period.

Annual Funding of \$0 is approximately percent of the \$38,850 recommended Annual Funding calculated by the Cash Flow Method for 2024, the Study Year.

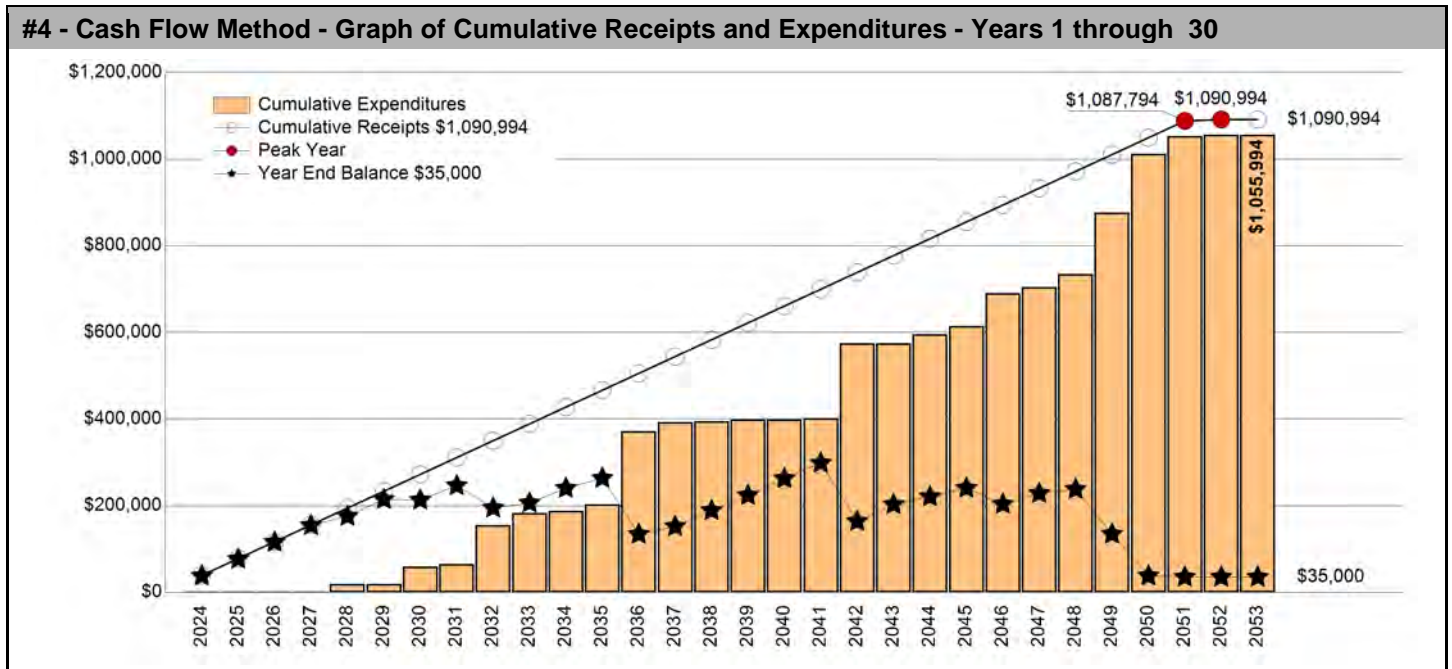
See the Executive Summary for the Current Funding Statement.

CASH FLOW METHOD FUNDING**\$38,850****RECOMMENDED REPLACEMENT RESERVE FUNDING FOR 2024**

\$13.84 Per unit (average), minimum monthly funding of Replacement Reserves

Recommended Replacement Reserve Funding has been calculated using the Cash Flow Method (also called the Straight Line or Threshold Method). This method calculates a constant annual funding between peaks in cumulative expenditures, while maintaining a Minimum Balance (threshold) in the Peak Years.

- **Peak Years.** The First Peak Year occurs in 2051 with Replacement Reserves on Deposit dropping to the Minimum Balance after the completion of \$1,052,794 of replacements from 2024 to 2051. Recommended funding is anticipated to decline in 2052. Peak Years are identified in Chart 4 and Table 5.
- **Threshold (Minimum Balance).** The calculations assume a Minimum Balance of \$35,000 will always be held in reserve, which is calculated by rounding the 12-month 30-year average annual expenditure of \$35,200 as shown on Graph #2.
- **Cash Flow Method Study Period.** Cash Flow Method calculates funding for \$1,055,994 of expenditures over the 30-year Study Period. It does not include funding for any projects beyond 2053 and in 2053, the end of year balance will always be the Minimum Balance.



#5 - Cash Flow Method - Table of Receipts & Expenditures - Years 1 through 30

Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Starting Balance										
Projected Replacements	(\$1,200)				(\$17,582)		(\$40,293)	(\$5,600)	(\$90,402)	(\$27,300)
Annual Deposit	\$38,850	\$38,850	\$38,850	\$38,850	\$38,850	\$38,850	\$38,850	\$38,850	\$38,850	\$38,850
End of Year Balance	\$37,650	\$76,500	\$115,349	\$154,199	\$175,467	\$214,317	\$212,874	\$246,124	\$194,572	\$206,121
Cumulative Expenditures	(\$1,200)	(\$1,200)	(\$1,200)	(\$1,200)	(\$18,782)	(\$18,782)	(\$59,075)	(\$64,675)	(\$155,077)	(\$182,377)
Cumulative Receipts	\$38,850	\$77,700	\$116,549	\$155,399	\$194,249	\$233,099	\$271,948	\$310,798	\$349,648	\$388,498
Year	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Projected Replacements	(\$5,000)	(\$15,582)	(\$168,163)	(\$21,000)	(\$2,000)	(\$3,952)		(\$3,200)	(\$173,175)	
Annual Deposit	\$38,850	\$38,850	\$38,850	\$38,850	\$38,850	\$38,850	\$38,850	\$38,850	\$38,850	\$38,850
End of Year Balance	\$239,971	\$263,239	\$133,926	\$151,776	\$188,626	\$223,524	\$262,373	\$298,023	\$163,698	\$202,548
Cumulative Expenditures	(\$187,377)	(\$202,959)	(\$371,121)	(\$392,121)	(\$394,121)	(\$398,073)	(\$398,073)	(\$401,273)	(\$574,448)	(\$574,448)
Cumulative Receipts	\$427,348	\$466,197	\$505,047	\$543,897	\$582,747	\$621,597	\$660,446	\$699,296	\$738,146	\$776,996
Year	2044	2045	2046	2047	2048	2049	2050	1st Peak - 2051	2nd Peak - 2052	2053
Projected Replacements	(\$21,000)	(\$19,000)	(\$75,802)	(\$13,800)	(\$29,593)	(\$142,082)	(\$135,400)	(\$41,670)	(\$3,200)	
Annual Deposit	\$38,850	\$38,850	\$38,850	\$38,850	\$38,850	\$38,850	\$38,850	\$38,850	\$3,200	
End of Year Balance	\$220,398	\$240,248	\$203,296	\$228,345	\$237,603	\$134,370	\$37,820	\$35,000	\$35,000	\$35,000
Cumulative Expenditures	(\$595,448)	(\$614,448)	(\$690,250)	(\$704,050)	(\$733,642)	(\$875,724)	(\$1,011,124)	(\$1,052,794)	(\$1,055,994)	(\$1,055,994)
Cumulative Receipts	\$815,845	\$854,695	\$893,545	\$932,395	\$971,245	\$1,010,094	\$1,048,944	\$1,087,794	\$1,090,994	\$1,090,994

INFLATION ADJUSTED FUNDING

The Cash Flow Method calculations on Page A4 have been done in today's dollars with no adjustment for inflation. At Miller+Dodson, we believe that long-term inflation forecasting is effective at demonstrating the power of compounding, not at calculating appropriate funding levels for Replacement Reserves. We have developed this proprietary model to estimate the short-term impact of inflation on Replacement Reserve funding.

\$38,850 2024 - CASH FLOW METHOD RECOMMENDED FUNDING

The 2024 Study Year calculations have been made using current replacement costs (see Page B1.2), modified by the Analyst for any project specific conditions.

\$41,181 2025 - INFLATION ADJUSTED FUNDING

A new analysis calculates the 2025 funding based on three assumptions:

- Replacement Reserves on Deposit totaling \$37,650 on July 1, 2025.
- All 2024 Projected Replacements listed on Page C1.2 accomplished at a cost to Replacement Reserves less than \$1,200.
- Construction Cost Inflation of 6.00 percent in 2024.

The \$41,181 inflation adjusted funding in 2025 is a 5.99 percent increase over the non-inflation adjusted funding of \$38,850.

\$43,652 2026 - INFLATION ADJUSTED FUNDING

A new analysis calculates the 2026 funding based on three assumptions:

- Replacement Reserves on Deposit totaling \$40,464 on July 1, 2026.
- No Expenditures from Replacement Reserves in 2025.
- Construction Cost Inflation of 6.00 percent in 2025.

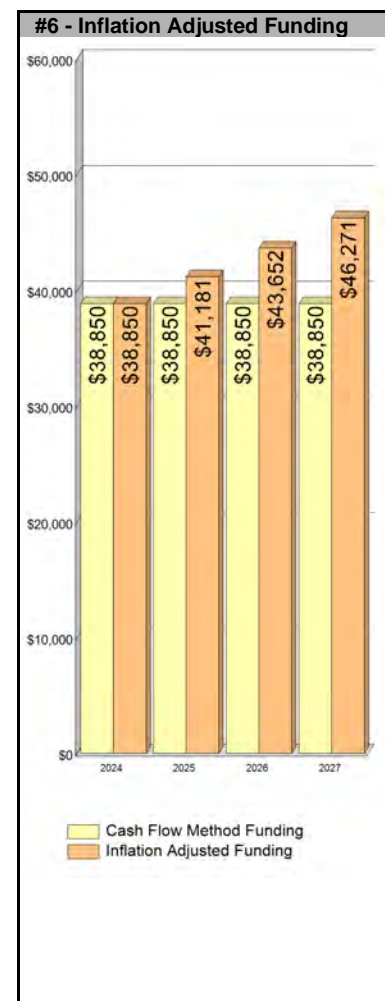
The \$43,652 inflation adjusted funding in 2026 is a 12.35 percent increase over the non-inflation adjusted funding of \$38,850.

\$46,271 2027 - INFLATION ADJUSTED FUNDING

A new analysis calculates the 2027 funding based on three assumptions:

- Replacement Reserves on Deposit totaling \$44,460 on July 1, 2027.
- No Expenditures from Replacement Reserves in 2026.
- Construction Cost Inflation of 6.00 percent in 2026.

The \$46,271 inflation adjusted funding in 2027 is a 19.10 percent increase over the non-inflation adjusted funding of \$38,850.



Year Four and Beyond

The inflation-adjusted funding calculations outlined above are not intended to be a substitute for periodic evaluation of common elements by an experienced Reserve Analyst. Industry Standards, lender requirements, and many state and local statutes require a Replacement Reserve Study to be professionally updated every 3 to 5 years.

Inflation Adjustment

Prior to approving a budget based upon the 2025, 2026 and 2027 inflation-adjusted funding calculations above, the 6.00 percent base rate of inflation used in our calculations should be compared to rates published by the Bureau of Labor Statistics. If there is a significant discrepancy (over 1 percentage point), contact Miller+Dodson Associates prior to using the Inflation Adjusted Funding.

Interest on Reserves

The recommended funding calculations do not account for interest earned on Replacement Reserves. In 2024, based on a 1.00 percent interest rate, we estimate the Association may earn \$188 on an average balance of \$18,825, \$391 on an average balance of \$39,057 in 2025, and \$425 on \$42,462 in 2026. The Association may elect to attribute 100 percent of the earned interest to Reserves, resulting in a reduction in the 2024 funding from \$38,850 to \$38,662 (a 0.48 percent reduction), \$41,181 to \$40,790 in 2025 (a 0.94 percent reduction), and \$43,652 to \$43,227 in 2026 (a 0.97 percent reduction).

REPLACEMENT RESERVE STUDY - SUPPLEMENTAL COMMENTS

Maryland's new Reserves and Reserve Study Law, HB-107, is intended to ensure that adequate Reserve Funding is available for capital repair and replacement projects when it is needed. This is done by funding the Reserve Fund annually. The law requires that the Recommended Annual Reserve Funding amount in the most recent Reserve Study be included in the Association's annual budgets. If this is an Association's "initial" (first) professionally conducted Reserve Study, HB-107 gives the Association up to three (3) fiscal years following the fiscal year in which the Reserve Study was completed, to attain the Annual Reserve Funding level recommended in the initial Reserve Study.

[09/30/2023] revised per board

[10/02/2023] revised per board

SECTION B - REPLACEMENT RESERVE INVENTORY

- **PROJECTED REPLACEMENTS.** Cape St. Claire - Pier Committee at Deep Creek, Lake Claire, and Little Magothy Pier (DC, LC, & LM) - Replacement Reserve Inventory identifies 43 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 \$648,299. Cumulative Replacements totaling \$1,055,994 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.

- **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 \$1000 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 - General Comments on Page B1.2.

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.

- **CATEGORIES.** The 43 items included in the Cape St. Claire - Pier Committee at Deep Creek, Lake Claire, and Little Magothy Pier (DC, LC, & LM) Replacement Reserve Inventory are divided into 1 major categories. Each category is printed on a separate page, beginning on page B1.3.
- **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.

REPLACEMENT RESERVE INVENTORY - GENERAL INFORMATION (CONT'D)

- **INVENTORY DATA.** Each of the 43 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 four 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 a cost database we have developed based upon our detailed interviews with contractors and service providers who are specialists in their respective lines of work.

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 43 Projected Replacements specifically listed in the Replacement Reserve Inventory. The inclusion/exclusion of items from the Replacement Reserve Inventory is discussed on Page B1.1.

Cape St. Claire - Pier Committee at Deep Creek, Lake Claire, and Little Magothy
Pier (DC, LC, & LM)

October 04, 2023

RECREATION ITEMS - DEEP CREEK PIERS (DC) [10/02/2023] REVISED						NEL- Normal Economic Life (yrs)	
PROJECTED REPLACEMENTS						REL- Remaining Economic Life (yrs)	
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
1	DC Pier Piling (8" diameter) (20% allowance)	ea	59	\$1,200.00	14	12	\$70,800
2	DC Mooring Piling (10" diameter) (20% allowance)	ea	24	\$1,400.00	14	12	\$33,600
3	DC Pier structure, PTL (20% allowance)	sf	1,000	\$31.00	14	12	\$31,000
4	DC Pier decking, PTL (20% allowance)	sf	1,000	\$21.00	7	6	\$21,000
	DC Floating pier, wood frame and deck (PTL)						EXCLUDED
	DC Floating pier, float chambers						EXCLUDED
5	DC Pier, water service (PVC) (20% allowance)	ft	200	\$38.00	15	12	\$7,600
6	DC Pier, fire system (standpipes)	ls	1	\$2,500.00	15	12	\$2,500
7	DC Pier, electric service and switch-gear	ls	2	\$7,500.00	30	12	\$15,000
8	DC Pier lighting, pole fixtures	ea	19	\$1,000.00	15	6	\$19,000
9	DC Armor stone revetment, replace, PTL (33%)	ft	66	\$600.00	25	25	\$39,600
10	DC Bulkhead, replace, PTL (20% allowance)	ft	160	\$350.00	25	25	\$56,000
11	DC Bulkhead, refurbish (10% of repl)	ls	1	\$6,650.00	15	12	\$6,650
12	DC Security camera (IP)	ea	8	\$400.00	10	7	\$3,200
13	DC Security video recorder (IP 8 channel - digital)	ea	1	\$2,400.00	15	7	\$2,400
14	DC Fence, 4' wood picket gate	ft	2	\$600.00	50	none	\$1,200
15	DC Gravel path, replenish 3/8" per sf (6%)	sf	65	\$4.50	6	6	\$293
16	DC Maintenance shed, wood frame and siding	sf	220	\$75.00	30	25	\$16,500
17	DC Marquee flexible letter sign face	sf	60	\$12.00	15	12	\$720
	DC Air compressor (5 HP), base mounted						EXCLUDED
18	DC Boat pump-out unit	ls	1	\$2,000.00	10	4	\$2,000
19	DC Meter socket and service, 100 amp	ea	1	\$4,500.00	50	30	\$4,500
20	DC Meter socket and service, 100 amp	ea	1	\$4,500.00	50	30	\$4,500
Replacement Costs - Page Subtotal							\$338,063

COMMENTS

- DC Floating pier, wood frame and deck (PTL) - [09/30/2023] excluded per board [10/02/2023] revised description per board
- DC Floating pier, float chambers - [09/30/2023] excluded per board [10/02/2023] revised description per board
- DC Air compressor (5 HP), base mounted - [09/30/2023] excluded per board
- Item #18: DC Boat pump-out unit - [09/30/2023] revised per board
- Item #19: DC Meter socket and service, 100 amp - [09/30/2023] revised per board
- Item #20: DC Meter socket and service, 100 amp - [09/30/2023] revised per board

Cape St. Claire - Pier Committee at Deep Creek, Lake Claire, and Little Magothy
Pier (DC, LC, & LM)

October 04, 2023

RECREATION ITEMS - LAKE CLAIRE BOAT PIER (LC)					NEL- Normal Economic Life (yrs)		
PROJECTED REPLACEMENTS					REL- Remaining Economic Life (yrs)		
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
21	LC Piling (10" diameter) (20% allowance)	ea	21	\$1,400.00	14	8	\$29,400
22	LC Mooring piling (10" diameter) (20% allowance)	ea	15	\$1,400.00	14	8	\$21,000
23	LC Pier structure, PTL (20% allowance)	sf	742	\$31.00	14	8	\$23,002
24	LC Pier decking, PTL (20% allowance)	sf	742	\$21.00	7	4	\$15,582
25	LC Pier, water service (PVC) (20% allowance)	ft	104	\$38.00	30	15	\$3,952
26	LC Pier, fire system (standpipes)	ls	1	\$2,500.00	15	10	\$2,500
27	LC Pier, electric service and switch-gear	ls	1	\$7,500.00	30	25	\$7,500
	LC Bulkhead, refurbish (10% of repl)						EXCLUDED
	LC Bulkhead, replace, PTL						EXCLUDED
28	LC Pier lighting, pole fixtures	ea	8	\$1,000.00	15	8	\$8,000
29	LC Fence, 6' decorative steel or iron gate	ft	1	\$1,900.00	50	25	\$1,900
30	LC Security camera (IP)	ea	4	\$400.00	10	8	\$1,600
31	LC Security video recorder (IP 8 channel - digital)	ea	1	\$2,400.00	15	8	\$2,400
Replacement Costs - Page Subtotal							\$116,836

COMMENTS

- Item #26: LC Pier, fire system (standpipes) - [09/30/2023] revised per board
- Item #27: LC Pier, electric service and switch-gear - [09/30/2023] revised per board
- LC Bulkhead, refurbish (10% of repl) - [09/14/2023] included in the CSCIA general study
- LC Bulkhead, replace, PTL - [09/14/2023] included in the CSCIA general study

Cape St. Claire - Pier Committee at Deep Creek, Lake Claire, and Little Magothy
Pier (DC, LC, & LM)

October 04, 2023

RECREATION ITEMS - LITTLE MAGOTHY PIER (LM)					NEL- Normal Economic Life (yrs)		
PROJECTED REPLACEMENTS					REL- Remaining Economic Life (yrs)		
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
32	LM Piling (8" diameter)	ea	48	\$1,200.00	30	18	\$57,600
33	LM Mooring piling (10" diameter)	ea	28	\$1,400.00	30	18	\$39,200
34	LM Pier structure, PTL	sf	1,300	\$31.00	30	18	\$40,300
35	LM Pier decking, PTL	sf	1,300	\$21.00	15	9	\$27,300
36	LM Pier, water service (PVC)	ft	200	\$38.00	30	18	\$7,600
37	Pier, fire system (standpipes)	ls	1	\$2,500.00	15	10	\$2,500
38	LM Pier, electric service and switch-gear	ls	1	\$7,500.00	30	18	\$7,500
39	LM Pier lighting, pole fixtures	ea	1	\$1,000.00	15	8	\$1,000
40	LM Fence, 6' decorative steel or iron gate	ft	1	\$1,900.00	50	18	\$1,900
41	LM Security camera (IP)	ea	4	\$400.00	10	8	\$1,600
42	LM Security video recorder (IP 8 channel - digital)	ea	1	\$2,400.00	15	8	\$2,400
43	LM Meter socket and service, 100 amp	ea	1	\$4,500.00	50	45	\$4,500
Replacement Costs - Page Subtotal							\$193,400

COMMENTS

- Item #43: LM Meter socket and service, 100 amp - [09/30/2023] added per board

VALUATION EXCLUSIONS								
Excluded Items								
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)	
	Ground mounted site lighting fixtures						EXCLUDED	
	Miscellaneous signage						EXCLUDED	
	Bollard/access control devices						EXCLUDED	
	Bench						EXCLUDED	
	Picnic table						EXCLUDED	
	BBQ						EXCLUDED	
	Pier bumpers, cleats, and ropes						EXCLUDED	
	Fire extinguisher cabinet						EXCLUDED	
	Fire extinguishers						EXCLUDED	
	Life saving buoys						EXCLUDED	
	Ladders						EXCLUDED	
	Wood shed ramps						EXCLUDED	
	Electric heaters						EXCLUDED	

VALUATION EXCLUSIONS	
Comments	
<ul style="list-style-type: none">Valuation Exclusions. For ease of administration of the Replacement Reserves and to reflect accurately how Replacement Reserves are administered, items with a dollar value less than \$1000 have not been scheduled for funding from Replacement Reserve. Examples of items excluded by Replacement Reserves by this standard are listed above.The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.	

LONG-LIFE EXCLUSIONS								
Excluded Items								
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)	
	Building foundation(s)						EXCLUDED	
	Concrete floor slabs (interior)						EXCLUDED	
	Wall, floor, and roof structure						EXCLUDED	
	Fire protection/security systems						EXCLUDED	
	Common element electrical services						EXCLUDED	
	Electrical wiring						EXCLUDED	
	Water piping at common facilities						EXCLUDED	
	Waste piping at common facilities						EXCLUDED	
	Gas services at common facilities						EXCLUDED	

LONG-LIFE EXCLUSIONS	
Comments	
<ul style="list-style-type: none">Long Life Exclusions. Components that when properly maintained, can be assumed to have a life equal to the property as a whole, are normally excluded from the Replacement Reserve Inventory. Examples of items excluded from funding by Replacement Reserves by this standard are listed above.Exterior masonry is generally assumed to have an unlimited economic life, but periodic repointing is required, and we have included this for funding in the Replacement Reserve Inventory.The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.	

UTILITY EXCLUSIONS								
Excluded Items								
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)	
	Primary electric feeds						EXCLUDED	
	Electric transformers						EXCLUDED	
	Cable TV systems and structures						EXCLUDED	
	Telephone cables and structures						EXCLUDED	
	Site lighting						EXCLUDED	
	Gas mains and meters						EXCLUDED	
	Water mains and meters						EXCLUDED	
	Sanitary sewers						EXCLUDED	
	Stormwater management system						EXCLUDED	

UTILITY EXCLUSIONS	
Comments	
<ul style="list-style-type: none">Utility Exclusions. Many improvements owned by utility companies are on property owned by the Association. We have assumed that repair, maintenance, and replacements of these components will be done at the expense of the appropriate utility company. Examples of items excluded from funding Replacement Reserves by this standard are listed above.The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.	

MAINTENANCE AND REPAIR EXCLUSIONS								
Excluded Items								
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)	
	Striping of parking spaces						EXCLUDED	
	Numbering of parking spaces						EXCLUDED	
	Landscaping and site grading						EXCLUDED	
	Exterior painting						EXCLUDED	
	Interior painting						EXCLUDED	
	Janitorial service						EXCLUDED	
	Repair services						EXCLUDED	
	Partial replacements						EXCLUDED	
	Capital improvements						EXCLUDED	

MAINTENANCE AND REPAIR EXCLUSIONS	
Comments	
<ul style="list-style-type: none">Maintenance activities, one-time-only repairs, and capital improvements. These activities are NOT appropriately funded from Replacement Reserves. The inclusion of such component in the Replacement Reserve Inventory could jeopardize the special tax status of ALL Replacement Reserves, exposing the Association to significant tax liabilities. We recommend that the Board of Directors discuss these exclusions and Revenue Ruling 75-370 with a Certified Public Accountant.Examples of items excluded from funding by Replacement Reserves are listed above. The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.	

GOVERNMENT EXCLUSIONS								
Excluded Items								
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)	
	Government, roadways and parking						EXCLUDED	
	Government, sidewalks and curbs						EXCLUDED	
	Government, lighting						EXCLUDED	
	Government, stormwater management						EXCLUDED	

GOVERNMENT EXCLUSIONS	
Comments	
<ul style="list-style-type: none">Government Exclusions. We have assumed that some of the improvements installed on property owned by the Association will be maintained by the state, county, or local government, or other association or other responsible entity. Examples of items excluded from funding by Replacement Reserves by this standard are listed above.Excluded rights-of-way, including adjacent properties and adjacent roadways.The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.	

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SECTION C - CALENDAR OF PROJECTED ANNUAL REPLACEMENTS

GENERAL STATEMENT. The 43 Projected Replacements in the Cape St. Claire - Pier Committee at Deep Creek, Lake Claire, and Little Magothy Pier (DC, LC, & LM) Replacement Reserve Inventory whose replacement is scheduled to be funded from Replacement Reserves are broken down on a year-by-year basis, beginning on Page C1.2.

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, Miller Dodson 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 Miller - Dodson Associates 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 is a reflection of 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 Miller - Dodson Associates 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, begins on Page C2. 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.

PROJECTED REPLACEMENTS

2024 - Study Year			2025 - YEAR 1		
Item		\$	Item		\$
14	DC Fence, 4' wood picket gate	\$1,200			
Total Scheduled Replacements		\$1,200	No Scheduled Replacements		
2026 - YEAR 2			2027 - YEAR 3		
Item		\$	Item		\$
No Scheduled Replacements			No Scheduled Replacements		
2028 - YEAR 4			2029 - YEAR 5		
Item		\$	Item		\$
18	DC Boat pump-out unit	\$2,000			
24	LC Pier decking, PTL (20% allowance)	\$15,582			
Total Scheduled Replacements		\$17,582	No Scheduled Replacements		
2030 - YEAR 6			2031 - YEAR 7		
Item		\$	Item		\$
4	DC Pier decking, PTL (20% allowance)	\$21,000	12	DC Security camera (IP)	\$3,200
8	DC Pier lighting, pole fixtures	\$19,000	13	DC Security video recorder (IP 8 channel - digital)	\$2,400
15	DC Gravel path, replenish 3/8" per sf (6% allowance)	\$293			
Total Scheduled Replacements		\$40,293	Total Scheduled Replacements		\$5,600

Cape St. Claire - Pier Committee at Deep Creek, Lake Claire, and Little Magothy
Pier (DC, LC, & LM)

October 04, 2023

PROJECTED REPLACEMENTS

2032 - YEAR 8			2033 - YEAR 9		
Item		\$	Item		\$
21	LC Piling (10" diameter) (20% allowance)	\$29,400	35	LM Pier decking, PTL	\$27,300
22	LC Mooring piling (10" diameter) (20% allowance)	\$21,000			
23	LC Pier structure, PTL (20% allowance)	\$23,002			
28	LC Pier lighting, pole fixtures	\$8,000			
30	LC Security camera (IP)	\$1,600			
31	LC Security video recorder (IP 8 channel - digital)	\$2,400			
39	LM Pier lighting, pole fixtures	\$1,000			
41	LM Security camera (IP)	\$1,600			
42	LM Security video recorder (IP 8 channel - digital)	\$2,400			
Total Scheduled Replacements		\$90,402	Total Scheduled Replacements		\$27,300

2034 - YEAR 10			2035 - YEAR 11		
Item		\$	Item		\$
26	LC Pier, fire system (standpipes)	\$2,500	24	LC Pier decking, PTL (20% allowance)	\$15,582
37	Pier, fire system (standpipes)	\$2,500			
Total Scheduled Replacements		\$5,000	Total Scheduled Replacements		\$15,582

2036 - YEAR 12			2037 - YEAR 13		
Item		\$	Item		\$
1	DC Pier Piling (8" diameter) (20% allowance)	\$70,800	4	DC Pier decking, PTL (20% allowance)	\$21,000
2	DC Mooring Piling (10" diameter) (20% allowance)	\$33,600			
3	DC Pier structure, PTL (20% allowance)	\$31,000			
5	DC Pier, water service (PVC) (20% allowance)	\$7,600			
6	DC Pier, fire system (standpipes)	\$2,500			
7	DC Pier, electric service and switch-gear	\$15,000			
11	DC Bulkhead, refurbish (10% of repl)	\$6,650			
15	DC Gravel path, replenish 3/8" per sf (6% allowance)	\$293			
17	DC Marquee flexible letter sign face	\$720			
Total Scheduled Replacements		\$168,163	Total Scheduled Replacements		\$21,000

2038 - YEAR 14			2039 - YEAR 15		
Item		\$	Item		\$
18	DC Boat pump-out unit	\$2,000	25	LC Pier, water service (PVC) (20% allowance)	\$3,952
Total Scheduled Replacements		\$2,000	Total Scheduled Replacements		\$3,952

PROJECTED REPLACEMENTS

Item	2040 - YEAR 16	\$
No Scheduled Replacements		

Item	2041 - YEAR 17	\$
12	DC Security camera (IP)	\$3,200
Total Scheduled Replacements		\$3,200

Item	2042 - YEAR 18	\$	Item	2043 - YEAR 19	\$
15	DC Gravel path, replenish 3/8" per sf (6% allowance)	\$293			
24	LC Pier decking, PTL (20% allowance)	\$15,582			
30	LC Security camera (IP)	\$1,600			
32	LM Piling (8" diameter)	\$57,600			
33	LM Mooring piling (10" diameter)	\$39,200			
34	LM Pier structure, PTL	\$40,300			
36	LM Pier, water service (PVC)	\$7,600			
38	LM Pier, electric service and switch-gear	\$7,500			
40	LM Fence, 6' decorative steel or iron gate	\$1,900			
41	LM Security camera (IP)	\$1,600			
Total Scheduled Replacements			No Scheduled Replacements		
		\$173,175			

Item	2044 - YEAR 20	\$	Item	2045 - YEAR 21	\$
4	DC Pier decking, PTL (20% allowance)	\$21,000	8	DC Pier lighting, pole fixtures	\$19,000
Total Scheduled Replacements		\$21,000	Total Scheduled Replacements		\$19,000

Item	2046 - YEAR 22	\$
13	DC Security video recorder (IP 8 channel - digital)	\$2,400
21	LC Piling (10" diameter) (20% allowance)	\$29,400
22	LC Mooring piling (10" diameter) (20% allowance)	\$21,000
23	LC Pier structure, PTL (20% allowance)	\$23,002
Total Scheduled Replacements		\$75,802

Item	2047 - YEAR 23	\$
28	LC Pier lighting, pole fixtures	\$8,000
31	LC Security video recorder (IP 8 channel - digital)	\$2,400
39	LM Pier lighting, pole fixtures	\$1,000
42	LM Security video recorder (IP 8 channel - digital)	\$2,400
Total Scheduled Replacements		\$13,800

Cape St. Claire - Pier Committee at Deep Creek, Lake Claire, and Little Magothy
Pier (DC, LC, & LM)

October 04, 2023

PROJECTED REPLACEMENTS

2048 - YEAR 24			2049 - YEAR 25		
Item		\$	Item		\$
15	DC Gravel path, replenish 3/8" per sf (6% allowance)	\$293	9	DC Armor stone revetment, replace, PTL (33% Allow.)	\$39,600
18	DC Boat pump-out unit	\$2,000	10	DC Bulkhead, replace, PTL (20% allowance)	\$56,000
35	LM Pier decking, PTL	\$27,300	16	DC Maintenance shed, wood frame and siding (painted)	\$16,500
			24	LC Pier decking, PTL (20% allowance)	\$15,582
			26	LC Pier, fire system (standpipes)	\$2,500
			27	LC Pier, electric service and switch-gear	\$7,500
			29	LC Fence, 6' decorative steel or iron gate	\$1,900
			37	Pier, fire system (standpipes)	\$2,500
Total Scheduled Replacements		\$29,593	Total Scheduled Replacements		\$142,082

2050 - YEAR 26			2051 - YEAR 27		
Item		\$	Item		\$
1	DC Pier Piling (8" diameter) (20% allowance)	\$70,800	4	DC Pier decking, PTL (20% allowance)	\$21,000
2	DC Mooring Piling (10" diameter) (20% allowance)	\$33,600	5	DC Pier, water service (PVC) (20% allowance)	\$7,600
3	DC Pier structure, PTL (20% allowance)	\$31,000	6	DC Pier, fire system (standpipes)	\$2,500
			11	DC Bulkhead, refurbish (10% of repl)	\$6,650
			12	DC Security camera (IP)	\$3,200
			17	DC Marquee flexible letter sign face	\$720
Total Scheduled Replacements		\$135,400	Total Scheduled Replacements		\$41,670

2052 - YEAR 28			2053 - YEAR 29		
Item		\$	Item		\$
30	LC Security camera (IP)	\$1,600			
41	LM Security camera (IP)	\$1,600			
Total Scheduled Replacements		\$3,200	No Scheduled Replacements		

2054 (beyond study period)			2055 (beyond study period)		
Item		\$	Item		\$
15	DC Gravel path, replenish 3/8" per sf (6% allowance)	\$293			
19	DC Meter socket and service, 100 amp	\$4,500			
20	DC Meter socket and service, 100 amp	\$4,500			
Total Scheduled Replacements		\$9,293	No Scheduled Replacements		

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SECTION D - CONDITION ASSESSMENT

General Comments. Miller+Dodson Associates conducted a Reserve Study at Cape St. Claire - Piers Committee in July 2023. Cape St. Claire - Piers Committee is in generally good condition for a Pier Committee. Reviewing the Replacement Reserve Inventory will show that we anticipate most components achieving their normal economic lives.

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

IMPORTANT NOTE: This Condition Assessment is based upon visual and apparent conditions of the common elements of the community which were observed by the Reserve Analyst at the time of the site visit. This Condition Assessment does not constitute, nor is it a substitute for, a professional Structural Evaluation of the buildings, amenities, or systems. Miller Dodson 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.

RECREATION ITEMS

Wood Piers, Bulkheads, and Boat Ramp. The Association has a Pier Committee that operates the piers at Deep Creek and two other boat piers at Lake Claire and Little Magothy Pier, totaling 234 slips.

The Deep Creek Piers are at the end of Gateway Drive and are divided into three areas: L, S, and B, totaling 146 slips; Piers and Bulkheads are at the Deep Creek Pier area; and the Association operates piers at the Lake Claire recreation area at the end of Lake Claire Drive and a pier at Little Magothy Pier at the end of Skyway Drive. The piers are constructed from pressure-treated lumber supported by wood pilings. The floating platform is constructed from pressure-treated wood framing and decking and supported on plastic floats. The floating platform is excluded from the study.

The Boat Ramp and Boat Ramp Bulkheads are located in the Deep Creek Pier area and are included in the CSCIA study's General part. The vinyl baffle bulkhead located at the Lake Claire boat pier is included in the General part of the CSCIA study.

Piers, General: For this Reserve Analysis, each structure is divided into four major components to reflect their different service lives, and we have provided a 20% allowance for their replacement as needed instead of each major pier all at once:

- **Wood Decking.** The wood decking on the piers, the finger piers, and the wood walk are exposed to harsh sun and weather extremes. It will typically require replacement before the heavier members of the underlying structure. This decking will also be removed and replaced when the underlying structure is replaced. To model this replacement pattern, we have provided a 20% allowance replacement of the decking incident to replace 20% of the structure. We

have included an additional 20% replacement allowance interval for the wood pier decking at the midpoint of the service life of the underlying structure. The wood decking appears in good condition with minor defects consistent with age. Water tends to stand on the horizontal surfaces and soak into the wood. As the sun dries and pulls the moisture out of the wood, the wood shrinks and cracks. The wood decking should be repaired, and sections should be replaced every two to three years. We have included an allowance to replace 20% of the decking every seven years, but it should be replaced as needed.

- **Pier Structure.** The structure consists of pressure-treated woodpiles on 10-foot centers with stringers spanning the distance between piles. We have assumed that a 20% allowance of pilings will be replaced when its related pier structure requires replacement. The pier structure appears in fair condition and should be replaced as needed.
- **Freestanding Pilings.** Freestanding pilings are those pilings that are installed at the outside limit of each slip. These pilings provide mooring points to secure the stern of the boat within the slip. They are not a part of the pier structure. Because these pilings can be replaced individually when required without affecting other elements of the pier structure, we have treated them separately in the analysis and spread the cost of their replacement over time. The freestanding pilings appear to be in good condition.
- **Pier Utility Systems.** The Association boat piers are fitted with utilities, including electric feed panels, electric light fixtures, domestic water, fire extinguishers, and fire standpipes. The Deep Creek pier has a portable pump-out station for sewerage. The pier utility systems are reported to be in good operating condition.
- **Ladders and Ring Buoys.** The piers do not have wood railings, but they have ladders, ring buoys, and fire extinguishers. This study does not include ladders, ring buoys, or fire extinguishers.

1. Deep Creek Pier. The Association is responsible for approximately 5,000 square feet of pressure-treated wood boat pier with 146 slips. The piers have electrical and domestic water service, a portable sewerage pump-out station, aluminum or wood ladders, ring buoys, and fire extinguishers. The piers also have security cameras and a recorder. The pier structures appear to be in overall fair condition with weathering and cracked decking.





The piers consist of the following:

- The pier pilings appear to be in good condition.
- The freestanding (mooring) pilings appear to be in good condition.
- The pier structure with stringers appears to be in good condition.
- The main wood pier decking appears in fair condition, with weathered deck boards; some are cracked or split.
- The pier's electrical and plumbing systems appear to be in good condition, with weathering and corrosion of the electrical panels.

Shoreline Erosion Controls. The Association is responsible for approximately 800 linear feet of shoreline creosote-treated wooden bulkhead and 200 linear feet of armor stone revetment along the waterfront portion of the Deep Creek pier to help control erosion. Part of the bulkhead, stone revetment, and pier along the shoreline were recently replaced.

- **Bulkheads.** The newer bulkhead appears to be in good condition. No significant defects were noted. We noted no leaning sections, sinkholes behind the wall, or exposed anchor tie rods. We could not see below the waterline. The older section of the bulkhead appears to be in fair to marginal condition with discoloration.

Bulkheads have a rated service life of 50 years. We recommend that the Association start planning to replace the bulkhead due to its age while 85% of the bulkhead is intact and permits can be acquired. Bulkheads need to be designed by a qualified professional.

We recommend that the wood bulkhead be inspected at least once yearly and immediately following a storm that exposed the wall to significant wave action.



Paths and Walkways. The Deep Creek pier area also has a pier section between bulkhead sections with armor stone revetment that was recently replaced and appears in good condition. Along the bulkhead are wood walkways and a section of gravel path. The wood walkway appears in fair to marginal condition, and the gravel path appears in good condition and does not extend the whole way along the bulkhead from the Deep Creek pier access road.



- **Shoreline Rip-Rap Revetments.** The Pier Committee manages and maintains the shoreline permeable stone revetments installed in the Deep Creek pier area. Part of the revetment and a new section of the pier was recently replaced.

The newer revetment appears to be in good condition with no noted erosion or gaps but noted gaps in the older revetment where it meets the bulkhead. Permeable armor stone revetments, if properly maintained, can have a useful life of 30-50 years.

Keeping up with a rip-rap rock revetment's annual maintenance will help it to last a lifetime. Rip-rap rocks are designed to be durable and long-lasting. With proper upkeep, the rip-rap revetment has a lifespan of decades.



Cape St. Claire - Pier Committee at Deep Creek, Lake Claire, and Little Magothy Pier (DC, LC, & LM)

October 04, 2023

Because it is highly unlikely that all of the stone revetment components will fail and require replacement in the study period, we have programmed funds to replace 33% of these inventories to spread the funds over an extended timeframe to reflect the incremental nature of this work.

2. Lake Claire Boat Pier. The Association is responsible for approximately 3,712 square feet of pressure-treated wood boat pier with 69 boat slips at Lake Claire. The pier has a main stem, branches, and finger piers. The pier also has electrical service, light fixtures, water service, aluminum ladders, ring buoys, fire extinguishers, security cameras, a recorder, and a locked metal gate. The pier appears to be in overall good condition.



Cape St. Claire - Pier Committee at Deep Creek, Lake Claire, and Little Magothy Pier (DC, LC, & LM)

October 04, 2023

The pier consists of the following:

- The pier pilings appear to be in good condition.
- The freestanding (mooring) pilings appear to be in good condition.
- The pier structure appears to be in good condition.
- The main wood pier decking appears in fair condition, with weathered deck boards; some are cracked or split.
- The pier's electrical and plumbing systems appear to be in good condition, with weathering and corrosion of the electrical panels.

3. Little Magothy Pier. The Association is responsible for approximately 1,300 square feet of pressure-treated wood boat pier with 29 boat slips at the end of Skyway Drive. The pier has a main stem and branches. The pier also has electrical service, light fixtures, water service, aluminum ladders, ring buoys, fire extinguishers, security cameras, a recorder, and a locked metal gate. The pier appears to be in overall good condition.



The pier consists of the following:

- The pier pilings appear to be in good condition.
- The freestanding (mooring) pilings appear in good condition.
- The pier structures appear to be in good condition.
- The main wood pier decking appears to be in fair condition, with weathering.
- The pier's electrical and plumbing systems appear in good condition, with weathered deck boards; some are cracked or split.

Sheds. The Association owns a shed used for maintenance/storage at the Deep Creek pier area. The shed is wood framed with vinyl siding and asphalt shingle roofing. The overall condition of the shed appears to be good.



We have assumed that components of the shed exterior will be replaced as needed and that when the shed is replaced, it will be replaced with a similar type and size shed.

[10/02/2023] revised per board

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

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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, home owners 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 home in the community. 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 community 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.

The Appendix 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 community 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 community. 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 community 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 is commenced.

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 cost 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 has to 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 CALonline.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 of the components of the common property of a Community 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 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:

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

What is a Reserve Study?
Who are we?



<https://youtu.be/m4BcOE6q3Aw>

What kind of property uses a Reserve Study?
Who are our clients?



<https://youtu.be/40SodajTW1q>

Who conducts a Reserve Study?
Reserve Specialist (RS) what does this mean?



<https://youtu.be/pYSMZ013VjQ>

When should a Reserve Study be updated?
What are the different types of Reserve Studies?



<https://youtu.be/Qx8WHB9Cgnc>

What's in a Reserve Study and what's out?
Improvement/Component, what's the difference?



<https://youtu.be/ZfBoAEhtf3E>

What is my role as a Community Manager?
Will the report help me explain Reserves?



<https://youtu.be/1J2h7FIU3qw>

What is my role as a community Board Member?
 Will a Reserve Study meet my needs?



<https://youtu.be/aARD1B1Oa3o>

Community dues, how can a Reserve Study help?
 Will a study keep my property competitive?



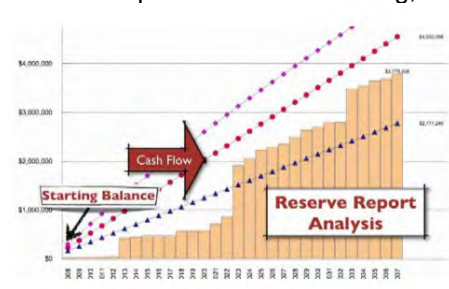
<https://youtu.be/diZfM1lyJYU>

How do I read the report?
 Will I have a say in what the report contains?



<https://youtu.be/qCeVJhFf9ag>

Where do the numbers come from?
 Cumulative expenditures and funding, what?



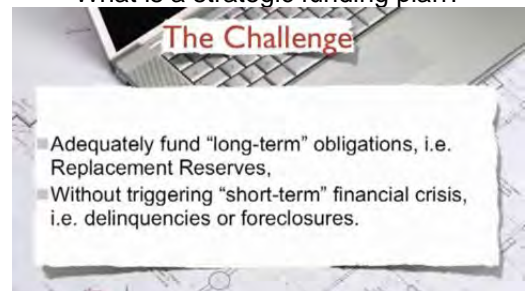
<https://youtu.be/SePdWVDvHWI>

How are interest and inflation addressed?
 Inflation, what should we consider?



<https://youtu.be/W8CDLwRlv68>

A community needs more help, where do we go?
 What is a strategic funding plan?



<https://youtu.be/hlxV9X1tlcA>