Independent Reserve Study

Level 1

Indigo On The Ashley RV1

For 30-Year Projection Period Beginning January 1, 2025



PREPARED BY: Carolina Reserve Studies, Inc. 43 Aberdeen Way Pawleys Island, SC 29585 843-421-1718 https://carolinareservestudies.com/

> <u>Reserve Consultants</u>: Emerson Treffer, RS Andrew Treffer, Analyst

etreffercrs@gmail.com

(c) 843-421-1718(o) 843-314-0153

CAROLINA RESERVE STUDIES, INC.



"Preserving Community Values via Strategic Planning"

43 Aberdeen Way Pawleys Island, South Carolina 29585 843-421-1718

> May 8, 2025 Revised May 9, 2025

Board of Directors Indigo On The Ashley 8311 Tyrian Path North Charleston, South Carolina 29418

> Re: Level 1 Reserve Study RV1 Indigo On The Ashley North Charleston, SC 29418

To The Board of Directors:

In accordance with your request, this firm has prepared a Level One Reserve Study for the property referenced above. The purpose of this assignment is to provide an opinion of the current and proposed funding for the reserves of the Association starting with the Fiscal Year 2025. Thus, the study date ranges from January 1, 2025 through December 31, 2055 (30 years).

Date of Inspection: The subject development was inspected on March 18, 2025.

Description of the Subject. Indigo On The Ashley consists of 81 single family homes which is located in Summerville, South Carolina.

Carolina Reserve Studies, Inc. | 843-421-1718 | https://carolinareservestudies.com/

Requested Level of Service. This study has been developed as a Level 1 Study. This study has been prepared to comply with the CAI (Community Associations Institute) guidelines and standards. The quantities that are utilized in this study were developed from field measurements by the analysts. No construction drawings were provided. The condition of each component was based on the visual inspection by the analysts. The results of this study are based on our inspection and the level of funding by the HOA.

Scope of Assignment: The scope of this assignment was clearly defined in the Reserve Study Agreement between this firm and the Association.

Components of Reserve Study: Your Reserve Study is made up of two parts: 1) the information about the physical status and repair/replacement cost of the major common area components that the Association or cooperative is obligated to maintain (Physical Analysis), and 2) the evaluation and analysis of the Association's reserve balance, income, and expenses (Financial Analysis). Physical Analysis is comprised of the Component Inventory, Condition Assessment, and Life and Valuation Estimates.

The Component Inventory should be relatively "stable" from year to year, while the Condition Assessment and Life Expectancy and Valuation Estimates will necessarily change from year to year. The Financial Analysis is made up of a finding of the client's current Reserve Fund Status (measured in cash or as percent funded) and a recommendation for an appropriate reserve contribution rate (Funding Plan).

Inspected Common Elements: The scope of this reserve study included such items as: monument and sign, stormwater and management pond. Please review the component list for more detailed information.

Exclusions: A complete list of items excluded are listed in the addenda of this study.

Pond and Dredging: It is noted that one of the largest expense of any HOA is the cost of dredging and this subdivision is no exception. We have assumed normal dredging practice with removal of the sediment and the transporation to a spoil site. The cost of dredging will vary from project to project and we have used an estimate provided by the on-site management.

Another method for dredging is the use of a de-watering tubes and geobags. The geobags are placed in a nearby staging area to allow water to escape while holding dredged sediment inside to dry. Using long, narrow de-watering tubes allows a large volume of sediment to be pumped into a small area with little disturbance or damage to trees in the area. The problem with this process is that

the geobags are not attractive. Thus, the HOA has to weigh the cost of normal dredging versus a reduce cost using geobags.

Another consideration for the HOA is to have Bathymetric studies completed every three years and then the Board will have a tool to determine the rate of sediment buildup. In some cases, spot dreding may solve the issues for the ponds.

Keeping the areas around the pond from eroding is important to extend the life of the pond and the regular inspection of the storm drain system(s) is also encouraged.

Important Note to the Client: This community was developed circa 1988 which means the pond for this HOA is 37 years old. Most ponds need dredging in 15 to 20 years. Since this pond is 17 years past the normal date for dredging, we have forecast that dredging should be completed in the next five years. However, if the pond is topped (water overflowing the banks) then dredging should be commenced as soon as possible. The Bathymetric study indicates areas to be dredged and we recommend that all of the areas indicated be dredged given the age of the pond. We have utilized \$60,000 as the cost of dredging and disposal. The High Water Report provides an estimate ranging from \$39,500 to \$65,250 for dredging and \$6,000 to \$8,500 for disposal of material. The HOA may want to consult with a civil engineering firm to review the current pond design and follow their recommendations to enhance the ponds capability, etc.

Notice To Client: The information provided to your analysts regarding the inservice life/date were limited to some extent; therefore, certain assumptions were made by the analysts and the in-service dates can be changed as needed. Some data was obtained from the on-site management. We have estimated the date(s) in service based on the condition of the component on the date of inspection and in conjunction with the on-site management.

Excluded Items: See Addenda.

Current Level of Funding: The current funding and the level of reserves was provided by the management company. We have not conducted an audit. The current reserves as of December 31, 2024 was \$12,000 and the anticipated total annual reserve contributions for 2025 is forecast is zero (\$12,000.00). The HOA may need to obtain bank financing to complete the dredging.

At present, the HOA is 27.7% funded. In order to attain the 70% funding level, the annual reserve contribution needs to be increased significantly each year.

Notice To Client: Based on your cash flow, this Association will remain below the Carolina Reserve Studies, Inc. | 843-421-1718 | https://carolinareservestudies.com/ Page 4 of 64 70% funding for some time.

Critical Year: Based on the cash flow your reserves will approach zero in year 2030. The HOA should plan to significantly plan to increase their reserves and/or their annual contributions.

Goal of Study: The generally excepted level of funding for an HOA to be rated as good is 70%. In other words, their reserves will cover 70% of their capital expenditures. The **70%** funded reserve is generally seen as ideal, as it allows HOAs to weather unexpected expenses without imposing significant financial burdens on homeowners or resorting to special assessments.

Condition Assessment: The condition of each item included in the inventory component list was established by using data provided by the client and/or the Community Manager and our overall experience. Our analysis of each component includes a visual inspection, prior invoices, and supplemental information. The overall condition is reported in the study along with the cost for replacement. If an item has what is considered to have a long-term economic life (beyond 30 years), we note this and provide an explanation of either an allowance being used or replacement cost. Some items are excluded, and these are listed in the addenda.

Results of the Study: As can be seen by pages 31 through 33, the Association is currently underfunded. This will provide you with a quick overview of the financial condition of your reserves. Your analysts recognize that this is an older HOA and that funding of the reserves has not kept up with inflation. However, given the rate of inflation and the low reserves, the HOA should consider increasing their HOA dues immediately.

Recommendations to Board Members and the Community Manager: All reserve studies contain an itemized list of components which are to be replaced via the reserve funds. Reviewing the list of components included is important and items can be included or excluded as deemed necessary. This firm is always available to discuss our findings and complete changes as needed to meet the goals for your Association.

Respectfully submitted,

Emerson Treffer, RS, CPI, ICA Andrew Treffer, Analyst

Acknowledgment. Carolina Reserve Studies, Inc. would like to acknowledge the assistance of the Board of Directors who provided very helpful insight into the current operations of the property.

Credentials of the Analyst's. Emerson Treffer holds a Bachelor's of Science Degree in Business Administration from the University of Maryland. Mr. Treffer has completed Reserve Studies throughout South Carolina and the Wilmington market of North Carolina. He has over 40 years of experience in evaluating Planned Unit Developments (PUDs), High-Rise and Mid-Rise Developments, and various types of large and small scale HOAs. He has evaluated other types of special purpose properties ranging from religious facilities, sports complexes, fire stations, day care centers, and schools. For the Department of the Interior, Mr. Treffer has evaluated The Tower at The Gettysburg National Battlefield as well as the evaluation of the buildings occupied by NSA and Production Studios used by HBO. He qualified as an expert witness in various Federal, State, and County Courts. Mr. Treffer is a Reserve Analyst for Carolina Reserve Studies, Inc.

PROPERTY SUMMARY:

Association Name:	Indigo On The Ashley
Location:	P. O. Box 50100
	Summerville, South Carolina 29418
Year Constructed Started:	1988
Financial Year:	2025
Report Level:	Level 1 Full Study with Site Visit
RESERVE FUND :	
Projected Starting Balance ¹ :	\$12,000.00
Projected Starting Balance ¹ : Current Funding:	\$12,000.00 \$12,000.00
Current Funding:	\$12,000.00
Current Funding: Percent Funded ² :	\$12,000.00 27.7%

¹ Information in relation to the Association's finances were based on the Association's annual statements from 2020 to 2024. This firm has not conducted an audit.

² The ratio, at a particular point of time (the beginning of the Fiscal Year), of the actual (or projected) Reserve Balance to the Fully Funded Balance, expressed as a percentage (<u>www.caionline.org</u>). Used to highlight the strength of the Association's reserve fund.

³ Inflation rate is based upon the average annual increase of the Producer Price Index (PPI) over the last 30-years and the current rate, as published by the US Bureau of Labor ^{Carolina Reserve Studies, Inc.} | 843-421-1718 | https://carolinareservestudies.com/ Page 7 of 64

Statistics (www.labor.gov). In addition this firm also does consider the Labor Department's Consumer Price Index (CPI) as well as the Commerce Department's measurement called the core Personal-Consumption Expenditures or PCE. The PCE is watched by the Federal Reserve and used as a trending analysis. The PCE tends to run below the CPI, however, it is considered to better uunderstand inflation's underlying trend. The biggest differnce between the CPI and the PCE is their composition. The Fed's focus has been a target rate of 2% inflation. With interest rates still tending higher than the prior two years we would expect that inflation will be trending downward in the future. However, we do not see a 2% inflation rate at this time as realistic when forecasting future replacement costs for Associations.

Limiting Conditions

This reserve study is subject to the following assumptions and limiting conditions:

This firm has no present, prospective, or future financial interest in this development.

This report has been prepared using the Standards set forth by CAI. Some deviation may be required given specific conditions or requirements from the client.

The content, analyses, and opinions set forth in this report are the sole product of Carolina Reserve Studies, Inc.

This firm has examined this development described herein exclusively for the purposes of identification and description of real property/components. The objective of our data collection is to develop an opinion of the condition of the components at the time of the inspection.

This firm's observations and reporting for any of the components should not be considered as a guarantee or warranty of any component of the subject development. Our opinion of the remaining econominc life of the components is an estimate. It is noted that some components can either wear out or fail prior to our estimated remaining life span. Factors such as weather, acts of God, quality of manufacturing, and lack of repairs and/or proper repairs can impact the life span of any component.

This reserve study is based on the assumption (unless otherwise specifically stated or reported to us) that the components are structually sound and all components are in working condition.

We are not required to give testimony or appear in court unless specific arrangements to do so have been made in advance, or as otherwise required by law, and that we are paid as an expert witness.

It is noted in this study that any significant adverse conditions that are discovered during the data collection and inspection of the project will be provided to the Board of Directors. This firm does not complete environmental inspections. The client may require other experts in other fields, and we may recommend these additional experts as needed.

Unless otherwise stated in this study, we have no knowledge of any hidden or unapparent physical deficiencies or adverse conditions of the property (such as, but not limited to, needed repairs, deterioration, the presence of hazardous wastes, toxic substances, adverse environmental condition, etc.) that would make this development less valuable.

We have assumed that there are no such conditions and make no guarantees or warranties, express or implied. This firm will not be responsible for any such conditions that do exist or for any engineering or testing that might be required to discover whether such conditions exist.

Because this firm is not an expert in the field of environmental hazards or engineering, this reserve study must not be considered as an environmental assessment of the property.

This firm has obtained cost information, cost estimates, and opinions as needed by other third parties such our data base, national cost data services, and contractors, etc. Some of our replacement costs are based on public information, contracts and developers that we believe to be true and correct.

We will not disclose the contents of this reserve study to any third party unless duly authorized in wiriting. We will discuss the findings of our reserve study only with the Board Members.

The Client is the party or parties who engage this firm (by a written contract) for a specific assignment. A party receiving a copy of the reserve study from the client does not, as a consequence, become a party to the analyst/firm-client relationship.

Any person who receives a copy of this reserve study as a consequence of disclosure requirements that apply to this firm's client does not become an intended user of this report unless the client specificially indentified them at the time of the assignment.

This firm's written consent and approval must be obtained before this reserve study can be conveyed by anyone to the public through advertising, public relations, news, sales, or other media.

CAI Reserve Funding Standards

The goal of our reserve study is to guide the Association toward becoming fully funded over the 30-year period listed in the study. The different ranges in levels of funding are listed below:

70 - 100 % Funded – Good

The reserve account at this level of funding is considered to have a good or high level of funding. The risk for a special assessments or loans, and deferred maintenance are low.

30 – 70 % Funded – Fair

A reserve account that is funded at the fair level is on the right track to be adequately funded. However, if large expenses arise such as unexpected component failures or rapidly rising costs then the funding level may decline.

0 – 30 % Funded – Poor

A poor funding level can lead an Association to use loans and/or a special assessment to cover the required level of reserves. The Association may not be able to meet their capital improvements as needed. Poor funding of reserves can lead to a community losing market appeal which then leads to longer marketing time, reduced sales, and lower home resale prices.

Table of Contents

Report Information	2
Executive Summary	7
Limiting Conditions	9
CAI Reserve Funding Standards	11
Important Information	13
Notice To Client	29
Financial Summary	30
Copy of Cash Flow	32
Expenditures	35
Component Detail	38
Exclusions	55
Additional Terms and Definitions	59
Qualification of the Reserve Specialist	64

Important Information

This document has been provided pursuant to an agreement containing restrictions on its use. No part of this document may be copied or distributed, in any form or by any means, nor disclosed to third parties without the expressed written permission of Carolina Reserve Studies, Inc. The client shall have the right to reproduce and distribute copies of this report, or the information contained within, as may be required for compliance with all applicable regulations.

This reserve analysis study and the parameters under which it has been completed are based upon information provided to us in part by representatives of the Association, its contractors, assorted vendors, specialists and independent contractors, the Community Association Institute, and various construction pricing and scheduling manuals including, but not limited to: Marshall & Swift Valuation Service, RS Means Facilities Maintenance & Repair Cost Data, RS Means Repair & Remodeling Cost Data, National Construction Estimator, National Repair & Remodel Estimator, Dodge Cost Manual and McGraw-Hill Professional. Additionally, costs are obtained from numerous vendor catalogues, actual quotations or historical costs, and our own experience in the field of property management and reserve study preparation.

It has been assumed, unless otherwise noted in this report, that all assets have been designed and constructed properly and that each estimated useful life will approximate that of the norm per industry standards and/or manufacturer's specifications. In some cases, estimates may have been used on assets, which have an indeterminable but potential liability to the Association. The decision for the inclusion of these as well as all assets considered is left to the client. We have not conducted any engineering inspections as this is beyond the scope of our assignment and we have not been provided any such studies. We recommend that the Association consult with Professional Civil Engineers (PE) regarding structural issues and we will not conduct any such service as this beyond the scope of our training and this assignment.

Report Updating

We recommend that your reserve analysis study be updated on an annual basis due to fluctuating interest rates, inflationary changes, and the unpredictable nature of the lives of many of the assets under consideration. All of the information collected during our inspection of the Association and computations made subsequently in preparing this reserve analysis study are retained in our computer files. Therefore, annual updates may be completed quickly and inexpensively each year.

Carolina Reserve Studies, Inc. would like to thank you for using our services. We invite you to call us at any time, should you have questions, comments or need assistance. In addition, any of the parameters and estimates used in this study may be changed at your request, after which we will provide a revised study.

This reserve analysis study is provided as an aid for planning purposes and not as an accounting tool. Since it deals with events yet to take place, there is no assurance that the results enumerated within it will, in fact, occur as described.

Introduction

Preparing the annual budget and overseeing the Association's finances are perhaps the most important responsibilities of Board members. The annual operating and reserve budgets reflect the planning and goals of the Association and set the level and quality of service for all of the Association's activities.

Funding Options

When a major repair or replacement is required in a community, an Association has essentially four options available to address the expenditure:

First Option

The first, and only logical means that the Board of Directors has to ensure its ability to maintain the assets for which it is obligated, is by assessing an adequate level of reserves as part of the regular membership assessment, thereby distributing the cost of the replacements uniformly over the entire membership. The community is not only comprised of present members, but also future members. Any decision by the Board of Directors to adopt a calculation method or funding plan which would disproportionately burden future members in order to make up for past reserve deficits, would be a breach of its fiduciary responsibility to those future members. Unlike individuals determining their own course of action, the Board is responsible to the "community" as a whole. Whereas, if the Association was setting aside reserves for this purpose, using the vehicle of the regularly assessed membership dues, it would have had the full term of the life of the roof, for example, to accumulate the necessary moneys. Additionally, those contributions would have been evenly distributed over the entire membership and would have earned interest as part of that contribution.

Second Option

The second option is for the Association to acquire a loan from a lending institution in order to affect the required repairs. In many cases, banks will lend to an Association using "future homeowner assessments" as collateral for the loan. With this method, the current Board is pledging the future assets of an Association. They are also incurring the additional expense of interest fees along with the original principal amount. In the case of a \$150,000 roofing replacement, the Association may be required to pay back the loan over a three-to-five-year period, with interest.

Third Option

The third option, too often used, is simply to defer the required repair or replacement. This option, which is not recommended, can create an environment of declining property values due to expanding lists of deferred maintenance items and the Association's financial inability to keep pace with the normal aging process of the common area components. This, in turn, can have a seriously negative impact on sellers in the Association by making it difficult, or even impossible, for potential buyers to obtain financing from lenders. Increasingly, lending institutions are requesting copies of the Association's most recent reserve study before granting loans, either for the Association itself, a prospective purchaser, or for an individual within such an Association.

Fourth Option

The fourth option is to pass a "special assessment" to the membership in an amount required to cover the expenditure. When a special assessment is passed, the Association has the authority and responsibility to collect the assessments, even by means of foreclosure, if necessary. However, an Association considering a special assessment cannot guarantee that an assessment, when needed, will be passed. Consequently, the Association cannot guarantee its ability to perform the required repairs or replacements to those major components for which it is obligated when the need arises. Additionally,

while relatively new communities require very little in the way of major "reserve" expenditures, Associations reaching 12 to 15 years of age and older, find many components reaching the end of their effective useful lives. These required expenditures, all accruing at the same time, could be devastating to an Association's overall budget.

Types of Reserve Studies

Most reserve studies fit into one of three categories:

Full Reserve Study;

Update with site inspection; and

Update without site inspection.

In a **Full Reserve Study**, the reserve provider conducts a component inventory, a condition assessment (based upon on-site visual observations), and life and valuation estimates to determine both a "fund status" and "funding plan".

In an Update with site inspection, the reserve provider conducts a component inventory (verification only, not quantification unless new components have been added to the inventory), a condition assessment (based upon on-site visual observations), and life and valuation estimates to determine both the "fund status and "funding plan."

In an **Update** <u>without</u> site inspection, the reserve provider conducts life and valuation estimates to determine the "fund status" and "funding plan."

The Reserve Study: A Physical and a Financial Analysis

There are two components of a reserve study: a physical analysis and a financial analysis.

Physical Analysis

During the physical analysis, a reserve study provider evaluates information regarding the physical status and repair/replacement cost of the association's major common area components. To do so, the provider conducts a component inventory, a condition assessment, and life and valuation estimates.

Developing a Component List

The budget process begins with full inventory of all the major components for

which the Association is responsible. The determination of whether an expense should be labeled as operational, reserve, or excluded altogether is sometimes subjective. Since this labeling may have a major impact on the financial plans of the Association, subjective determinations should be minimized. We suggest the following considerations when labeling an expense.

Operational Expenses

Occur at least annually, no matter how large the expense, and can be budgeted for effectively each year. They are characterized as being reasonably predictable, both in terms of frequency and cost. Operational expenses include all minor expenses, which would not otherwise adversely affect an operational budget from one year to the next. Examples of operational expenses include:

Utilities: Bank Service Charges, Accounting, Electricity, Dues & Publications, Reserve Study, Gas, Licenses, Permits and Fees

Repair Expenses: Water, Insurance(s), Tile Roof Repairs, Telephone

Services: Equipment Repairs, Cable TV, Landscaping, Minor Concrete Repairs

Administrative: Pool Maintenance, Operating Contingency, Supplies, Street Sweeping

Reserve Expenses

These are major expenses that occur other than annually, and which must be budgeted for in advance in order to ensure the availability of the necessary funds in time for their use. Reserve expenses are reasonably predictable both in terms of frequency and cost. However, they may include significant assets that have an indeterminable but potential liability that may be demonstrated as a likely occurrence. They are expenses that, when incurred, would have a significant effect on the smooth operation of the budgetary process from one year to the next, if they were not reserved for in advance.

Examples of reserve expenses include:

Roof Replacements

Park/Play Equipment

Carolina Reserve Studies, Inc. | 843-421-1718 | https://carolinareservestudies.com/

Painting Deck Resurfacing Fencing Replacement Asphalt Seal Coating Asphalt Repairs Asphalt Overlays Equipment Replacement Interior Furnishings Pool/Spa Re-plastering Pool Equipment Replacement Pool Furniture Replacement Tennis Court Resurfacing Lighting Replacement Insurance(s) Reserve Study

Budgeting is Normally Excluded for:

Repairs or replacements of assets which are deemed to have an estimated useful life equal to or exceeding the estimated useful life of the facility or community itself, or exceeding the legal life of the community as defined in an Association's governing documents. Examples include the complete replacement of elevators, tile roofs, wiring and plumbing. Also excluded are insignificant expenses that may be covered either by an operating or reserve contingency, or otherwise in a general maintenance fund. Expenses that are necessitated by acts of nature, accidents or other occurrences that are more properly insured for, rather than reserved for, are also excluded.

Financial Analysis

The financial analysis assesses the Association's reserve balance or "fund status" (measured in cash or as percent fully funded) to determine a recommendation for the appropriate reserve contribution rate in the future, known as the "funding plan".

Preparing the Reserve Study

Once the reserve assets have been identified and quantified, their respective replacement costs, useful lives and remaining lives must be assigned so that a funding schedule can be constructed. Replacement costs and useful lives can be found in published manuals such as construction estimators, appraisal handbooks, and valuation guides. Remaining lives are calculated from the useful lives and ages of assets and adjusted according to conditions such as design, manufactured quality, usage, exposure to the elements and maintenance history.

By following the recommendations of an effective reserve study, the Association Carolina Reserve Studies, Inc. | 843-421-1718 | https://carolinareservestudies.com/ Page 18 of 64 should avoid any major shortfalls. However, to remain accurate, the report should be updated on an annual basis to reflect such changes as shifts in economic parameters, additions of phases or assets, or expenditures of reserve funds. The Association can assist in simplifying the reserve analysis update process by keeping accurate records of these changes throughout the year.

Funding Methods

From the simplest to the most complex, reserve analysis providers use many different computational processes to calculate reserve requirements. However, there are two basic processes identified as industry standards: the Cash Flow Method and the Component Method.

Cash Flow Method

The cash flow method develops a reserve-funding plan where contributions to the reserve fund are designed to offset the variable annual expenditures from the reserve fund. Different reserve funding plans are tested against the actual anticipated schedule of reserve expenses until the desired funding goal is achieved. This method sets up a "window" in which all future anticipated replacement costs are computed, based upon the individual lives of the components under consideration. The Threshold and the Current Assment Funding models are based upon the cash flow method.

Component Method

The component method develops a reserve-funding plan where the total contribution is based upon the sum of contributions for individual components. The component method is the more conservative of the two funding options, and assures that the Association will achieve and maintain an ideal level of reserve over time. This method also allows for computations on individual components in the analysis. The Carolina Reserve Studies, Inc. Component Funding model is based upon the component methodology.

Funding Strategies

Once an Association has established its funding goals, the Association can select an appropriate funding plan. There are four basic strategies from which most Associations select. It is recommended that Associations consult professionals to determine the best strategy or combination of plans that best suit the Association's need. Additionally, Associations should consult with their financial advisor to determine the tax implications of selecting a particular plan. Further, consultation with the American Institute of Certified Public Accountants (AICPA) for their reporting requirements is advisable. The four funding plans and descriptions of each are detailed below. Associations will have to update their reserve studies more or less frequently depending on the funding strategy they select.

Full Funding

Given that the basis of funding for reserves is to distribute the costs of the replacements over the lives of the components in question, it follows that the ideal level of reserves would be proportionately related to those lives and costs. If an Association has a component with an expected estimated useful life of ten years, it would set aside approximately one-tenth of the replacement cost each year. At the end of three years, one would expect three-tenths of the replacement cost to have accumulated, and if so, that component would be "fully-funded." This model is important in that it is a measure of the adequacy of an Association's reserves at any one point of time, and is independent of any particular method which may have been used for past funding or may be under consideration for future funding. This formula represents a snapshot in time and is based upon current replacement cost, independent of future inflationary or investment factors:

Fully Funded Reserves = Age <u>divided by</u> Useful Life <u>the results multiplied by</u> Current Replacement Cost

When an Association's total accumulated reserves for all components meet this criterion, its reserves are considered "fully-funded."

Threshold Funding Model (Minimum Funding). The goal of this funding method is to keep the reserve cash balance above zero. This means that while each individual component may not be fully funded, the reserve balance overall does not drop below zero during the projected period. An Association using this funding method must understand that even a minor reduction in a component's remaining useful life can result in a deficit in the reserve cash balance.

Current Assessment Funding Model. This method is also based upon the cash flow funding concept. The initial reserve assessment is set at the Association's current fiscal year funding level and a 30-year projection is calculated to illustrate the adequacy of the current funding over time.

Component Funding Model. This is a straight-line funding model. It distributes the cash reserves to individual reserve components and then calculates what the reserve assessment and interest contribution (minus taxes) should be, again by each reserve component. The current annual assessment is then determined by summing all the individual component assessments, hence the name "Component Funding Model". This is the most conservative funding model. It leads to or maintains the fully funded reserve position. The following details this calculation process.

Component Funding Model Distribution of Accumulated Reserves The "Distribution of Accumulated Reserves Report" is a "Component Funding Model" calculation. This distribution <u>does not</u> apply to the cash flow funding models.

When calculating reserves based upon the component methodology, a beginning reserve balance must be allocated for each of the individual components considered in the analysis, before the individual calculations can be completed. When this distribution is not available, or of sufficient detail, the following method is suggested for allocating reserves:

The first step the program performs in this process is subtracting, from the total accumulated reserves, any amounts for assets that have predetermined (fixed) reserve balances. The user can "fix" the accumulated reserve balance within the program on the individual asset's detail page. If, by error, these amounts total more than the amount of funds available, then the remaining assets are adjusted accordingly. A provision for a contingency reserve is then deducted by the determined percentage used, and if there are sufficient remaining funds available.

The second step is to identify the ideal level of reserves for each asset. As indicated in the prior section, this is accomplished by evaluating the component's age proportionate to its estimated useful life and current replacement cost.

Again, the equation used is as follows:

Fully Funded Reserves = (Age/Useful Life) x Current Replacement Cost

The Carolina Reserve Studies, Inc. software program performs the above calculations to the actual month the component was placed-in-service. The program projects that the accumulation of necessary reserves for repairs or

replacements will be available on the first day of the fiscal year in which they are scheduled to occur.

The next step the program performs is to arrange all of the assets used in the study in ascending order by remaining life, and alphabetically within each grouping of remaining life items. These assets are then assigned their respective ideal level of reserves until the amount of funds available is depleted, or until all assets are appropriately funded. If any assets are assigned a zero remaining life (scheduled for replacement in the current fiscal year), then the amount assigned equals the current replacement cost and funding begins for the next cycle of replacement. If there are insufficient funds available to accomplish this, then the software automatically adjusts the zero remaining life items to one year, and that asset assumes its new grouping position alphabetically in the final printed report.

If, at the completion of this task, there are additional moneys that have not been distributed, the remaining reserves are then assigned, in ascending order, to a level equal to, but not exceeding, the current replacement cost for each component. If there are sufficient moneys available to fund all assets at their current replacement cost levels, then any excess funds are designated as such and are not factored into any of the report computations. If, at the end of this assignment process there are designated excess funds, they can be used to offset the monthly contribution requirements recommended, or used in any other manner the client may desire.

Assigning the reserves in this manner defers the make-up period for any underfunding over the longest remaining life of all assets under consideration, thereby minimizing the impact of any deficiency. For example, if the report indicates an under funding of \$50,000, this under-funding will be assigned to components with the longest remaining lives in order to give more time to "replenish" the account. If the \$50,000 under-funding were to be assigned to short remaining life items, the impact would be felt immediately.

If the reserves are under-funded, the monthly contribution requirements, as outlined in this report, can be expected to be higher than normal. In future years, as individual assets are replaced, the funding requirements will return to their normal levels. In the case of a large deficiency, a special assessment may be considered. The program can easily generate revised reports outlining how the monthly contributions would be affected by such an adjustment, or by any other changes that may be under consideration.

Funding Reserves

Three assessment and contribution figures are provided in the report, the "Monthly Reserve Assessment Required", the "Average Net Monthly Interest Earned" contribution and the "Total Monthly Allocation to Reserves."

Monthly Reserve Assessment Required. The Association should allocate the "Monthly Reserve Assessment Required" amount to reserves each month when the interest earned on the reserves is left in the reserve accounts as part of the contribution. Any interest earned on reserve deposits, must be left in reserves and only amounts set aside for taxes should be removed.

Total Monthly Allocation. The second alternative is to allocate the "Total Monthly Allocation" to reserves (this is the owner's assessment plus the anticipated interest earned for the fiscal year). This method assumes that all interest earned will be assigned directly as operating income. This allocation takes into consideration the anticipated interest earned on accumulated reserves regardless of whether or not it is actually earned. When taxes are paid, the amount due will be taken directly from the Association's operating accounts as the reserve accounts are allocated only those moneys net of taxes.

Users' Guide to your Reserve Analysis Study

Part II. Report contains the reserve analysis study for your Association. There are seven types of reports in the study as described below.

Report Summaries

The Report Summary for all funding models lists all of the parameters that were used in calculating the report as well as the summary of your reserve analysis study.

Index Reports

The Distribution of Accumulated Reserves report lists all assets in remaining life order. It also identifies the ideal level of reserves that should have accumulated for the Association as well as the actual reserves available. This information is valid only for the "Component Funding Model" calculation.

The **Component Listing/Summary** lists all assets by category (i.e., roofing, painting, lighting, etc.) together with their remaining life, current cost, monthly reserve contribution, and net monthly allocation.

Detail Reports

The Detail Report itemizes each asset and lists all measurements, current and

future costs, and calculations for that asset. Provisions for percentage replacements, salvage values, and one-time replacements can also be utilized. These reports can be sorted by category or group.

The numerical listings for each asset are enhanced by extensive narrative detailing factors such as design, manufactured quality, usage, exposure to elements and maintenance history.

The Detail Index is an alphabetical listing of all assets, together with the page number of the asset's detail report, the projected replacement year, and the asset number.

Projections

Thirty-year projections add to the usefulness of your reserve analysis study.

Definitions

Report I.D.

Includes the Report ID #: CRS032511AT. Please use this information (displayed on the summary page) when referencing your report.

Budget Year Beginning/Ending

The budgetary year for which the report is prepared. For Associations with fiscal years ending December 31st, the monthly contribution figures indicated are for the 12-month period beginning 1/1/20xx and ending 12/31/20xx.

Number of Units and/or Phases

If applicable, the number of units and/or phases included in this version of the report.

Inflation

This figure is used to approximate the future cost to repair or replace each component in the report. The current cost for each component is compounded on an annual basis by the number of remaining years to replacement, and the total is used in calculating the monthly reserve contribution that will be necessary to accumulate the required funds in time for replacement.

Annual Assessment Increase

This represents the percentage rate at which the Association will increase its

assessment to reserves at the end of each year. For example, in order to accumulate \$10,000 in 10 years, you could set aside \$1,000 per year. As an alternative, you could set aside \$795 the first year and increase that amount by 5% each year until the year of replacement. In either case you arrive at the same amount. The idea is that you start setting aside a lower amount and increase that number each year in accordance with the planned percentage. Ideally this figure should be equal to the rate of inflation. It can, however, be used to aide those associations that have not set aside appropriate reserves in the past, by making the initial year's allocation less formidable.

Investment Yield Before Taxes

The average interest rate anticipated by the Association based upon its current investment practices.

Taxes on Interest Yield

The estimated percentage of interest income that will be set aside to pay income taxes on the interest earned.

Projected Reserve Balance

The anticipated reserve balance on the first day of the fiscal year for which this report has been prepared. This is based upon information provided and not audited.

Percent Fully Funded

The ratio, at the beginning of the fiscal year, of the actual (or projected) reserve balance to the calculated fully funded balance, expressed as a percentage.

Phase Increment Detail and/or Age

Comments regarding aging of the components on the basis of construction date or date of acceptance by the Association.

Monthly Assessment

The assessment to reserves required by the Association each month.

Interest Contribution (After Taxes)

The interest that should be earned on the reserves, net of taxes, based upon their beginning reserve balance and monthly contributions for one year. This figure is averaged for budgeting purposes.

Total Monthly Allocation

The sum of the monthly assessment and interest contribution figures.

Carolina Reserve Studies, Inc. | 843-421-1718 | https://carolinareservestudies.com/

Group and Category

The report may be prepared and sorted either by group (location, building, phase, etc.) or by category (roofing, painting, etc.). The standard report printing format is by category.

Percentage of Replacement or Repairs

In some cases, an asset may not be replaced in its entirety or the cost may be shared with a second party. Examples are budgeting for a percentage of replacement of streets over a period of time, or sharing the expense to replace a common wall with a neighboring party.

Placed-In-Service Date

The month and year that the asset was placed-in-service. This may be the construction date, the first escrow closure date in a given phase, or the date of the last servicing or replacement.

Estimated Useful Life

The estimated useful life of an asset based upon industry standards, manufacturer specifications, visual inspection, location, usage, Association standards and prior history. All of these factors are taken into consideration when tailoring the estimated useful life to the particular asset. For example, the carpeting in a hallway or elevator (a heavy traffic area) will not have the same life as the identical carpeting in a seldom-used meeting room or office.

Adjustment to Useful Life

Once the useful life is determined, it may be adjusted, up or down, by this separate figure for the current cycle of replacement. This will allow for a current period adjustment without affecting the estimated replacement cycles for future replacements.

Estimated Remaining Life

This calculation is completed internally based upon the report's fiscal year date and the date the asset was placed-in-service.

Replacement Year

The year that the asset is scheduled to be replaced. The appropriate funds will be available by the first day of the fiscal year for which replacement is anticipated.

Annual Fixed Reserves

An optional figure which, if used, will override the normal process of allocating reserves to each asset.

Fixed Assessment

An optional figure which, if used, will override all calculations and set the assessment at this amount. This assessment can be set for monthly, quarterly or annually as necessary.

Salvage Value

The salvage value of the asset at the time of replacement, if applicable.

One-Time Replacement

Notation if the asset is to be replaced on a one-time basis.

Current Replacement Cost

The estimated replacement cost effective at the beginning of the fiscal year for which the report is being prepared.

Future Replacement Cost

The estimated cost to repair or replace the asset at the end of its estimated useful life based upon the current replacement cost and inflation.

Component Inventory

The task of selecting and qualifying reserve components. This task can be accomplished through on-site visual, review of association design and organizational documents, a review of established association precedents, and discussion with appropriate association representative(s).

A Multi-Purpose Tool

Your Carolina Reserve Studies, Inc. Report is an important part of your Association's budgetary process. Following its recommendations should ensure the association's smooth budgetary transitions from one fiscal year to the next, and either decrease or eliminate the need for "special assessments".

In addition, your Carolina Reserve Studies, Inc. reserve study serves a variety of useful purpose.

Following the recommendations of a reserve study performed by a professional consultant can protect the Board of Directors in a community from personal liability concerning reserve components and reserve funding.

• A reserve analysis study is required by your accountant during the Carolina Reserve Studies, Inc. | 843-421-1718 | https://carolinareservestudies.com/

preparation of the Association's annual audit.

- The reserve study is often requested by lending institutions during the process of loan applications, both for the community and, in many cases, the individual owners.
- Your report is also a detailed inventory of the Association's major assets and serves as a management tool for scheduling, coordinating and planning future repairs and replacements.
- Your study is a tool that can assist the Board in fulfilling its legal and fiduciary obligations for maintaining the community in a state of good repair. If a community is operating on a special assessment basis, it cannot guarantee that an assessment, when needed, will be passed. Therefore, it cannot guarantee its ability to perform the required repairs or replacements to those major components for which the Association is obligated.
- The reserve analysis study includes measurements and cost estimates of the client's assets, the detail reports may be used to evaluate the accuracy and price of contractor bids when assets are due to be repaired or replaced.
- The reserve study is an annual disclosure to the membership concerning the financial condition of the Association, and may be used as a "consumers' guide" by prospective purchasers.
- The Owners' Summary meets the disclosure requirements of the California Civil Code and also the recently adopted ECHO standards.
- Your study provides a record of the time, cost, and quantities of past reserve replacements. At times the Association's management company and Board of Directors are transitory which may result in the loss of these important records.

Notice to Client

- Management Review: Your study should be reviewed by the Community Manager and the Board of Directors and your accounting firm as needed.
- **Use of Study**: Your study has been prepared for the sole use of by the HOA and is not for the purpose of performing an audit and is not intended to be used by third parties.
- Study Changes: This firm will be glad to revise your study as needed at no charge. We are always available to discuss the study with you.
- Client Information: In some situations we have relied on data and/or information provided by HOA. Thus, we have assumed that the data/ information is correct.
- Unites States Tax Code: Funds for normal maintenance items and capital replacement should be in separate accounts. We further recommend that the CID consult with their Accountant and consider creating separate and independent accounts and reserves for large reserve items.
- Component Estimated Lifes and Remaining Economic Lifes: It has been our experience that components will either fail or wear out based on the skill of the management, the Board, and the overall maintenance program of the HOA. Our estimate of the life of a component and its expected remaining economic life is an estimate based on what we have observed and the current standards assigned to components via national cost services.
- Implied or Suggested Conflict of Interest: Carolina Reserve Studies, Inc. nor any of their Reserve Analysts or staff have no personal interest in this development and we have no relationship with this HOA other than to provide an independent study.
- Component Replacements and Associated Costs: We have assumed that all cost data and general information is correct.
- Study Issues: This study is not proposed or intended to be quality/forensic analysese, or investigation of prior historical data and related records.

Financial Summary

Projection Period:	January 1, 202	5 - December 31, 2054	Report Type	: Level I	
First Year Percent Contributions Change:		N/A	Association	: Single Family Homes	
Avg Annual Percent Contributions Change:		2.75%	Buildings:	1	
Interest:		0.00%	Total Units:	81	
Inflation:		2.75%	Year Built:	1988	
Inflation Compounded:	Yearly	Rounding Metho	d:	Bankers	
Contributions Method:	Future Cost	Percent Funded	Method:	Inflation-Adjusted Cost	
Total Current Cost of Components:		Total Future (Total Future Cost of All Expenditures:		
\$125,895.00		\$188,907.8	0		

First Five Years

PROPE	RTY							OWNER (PER UNIT)	
YEAR	STARTING BALANCE	CONTRIBUTIONS	SPECIAL ASSMNT	ADDT'L CAPITAL	INTEREST	RESERVE EXPENSES	ENDING BALANCE	MONTHLY CONTRIB	SPECIAL ASSMNT
2025	\$12,000.00	\$12,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$24,000.00	\$12.35	\$0.00
2026	\$24,000.00	\$12,330.00	\$0.00	\$0.00	\$0.00	\$0.00	\$36,330.00	\$12.69	\$0.00
2027	\$36,330.00	\$12,669.08	\$0.00	\$0.00	\$0.00	\$0.00	\$48,999.08	\$13.03	\$0.00
2028	\$48,999.08	\$13,017.48	\$0.00	\$0.00	\$0.00	\$0.00	\$62,016.56	\$13.39	\$0.00
2029	\$62,016.56	\$13,375.46	\$0.00	\$0.00	\$0.00	\$0.00	\$75,392.02	\$13.76	\$0.00

Aggregated Financial Overview

ASSOCIATION	FIRST YEAR (2025)	5 YEARS (2029)	10 YEARS (2034)	30 YEARS (2054)
Starting Balance	\$12,000.00	\$12,000.00	\$12,000.00	\$12,000.00
Contributions	\$12,000.00	\$63,392.02	\$135,993.23	\$548,336.03
Special Assessments	\$0.00	\$0.00	\$0.00	\$0.00
Additional Capital	\$0.00	\$0.00	\$0.00	\$0.00
Interest / Inv Returns	\$0.00	\$0.00	\$0.00	\$0.00
Reserve Expenses	\$0.00	\$0.00	(\$95,863.26)	(\$188,907.80)
Reserves Balance	\$24,000.00	\$75,392.02	\$52,129.97	\$371,428.23
Reserves Balance # of Special Assessments	\$24,000.00	\$75,392.02 0	\$52,129.97 0	\$371,428.23
# of Special Assessments				
# of Special Assessments Owner	0	0	0	0
# of Special Assessments Owner Avg Contributions (/unit/month)	0	0	0	0

Cash Flow



Cash Flow Comparison

YEAR	STARTING	CONTRIBUTIONS	PERCENT CHANGE	INTEREST	SPECIAL ASSMNT		EXPENDITURE FUTURE COST	ENDING BALANCE	PERCENT FUNDED	FULLY FUNDED BALANCE
2025	\$12,000.00	\$12,000.00	N/A	\$0.00	\$0.00	\$0.00	\$0.00	\$24,000.00	27.66%	\$86,774.68
2026	\$24,000.00	\$12,330.00	2.75%	\$0.00	\$0.00	\$0.00	\$0.00	\$36,330.00	38.35%	\$94,732.63
2027	\$36,330.00	\$12,669.08	2.75%	\$0.00	\$0.00	\$0.00	\$0.00	\$48,999.08	47.54%	\$103,062.62
2028	\$48,999.08	\$13,017.48	2.75%	\$0.00	\$0.00	\$0.00	\$0.00	\$62,016.56	55.48%	\$111,779.15
2029	\$62,016.56	\$13,375.46	2.75%	\$0.00	\$0.00	\$0.00	\$0.00	\$75,392.02	62.36%	\$120,897.10
2030	\$75,392.02	\$13,743.29	2.75%	\$0.00	\$0.00	\$0.00	\$85,895.50	\$3,239.81	7.68%	\$42,174.38
2031	\$3,239.81	\$14,121.23	2.75%	\$0.00	\$0.00	\$0.00	\$0.00	\$17,361.04	34.92%	\$49,715.23
2032	\$17,361.04	\$14,509.56	2.75%	\$0.00	\$0.00	\$0.00	\$6,861.81	\$25,008.79	49.44%	\$50,588.41
2033	\$25,008.79	\$14,908.57	2.75%	\$0.00	\$0.00	\$0.00	\$3,105.95	\$36,811.41	66.30%	\$55,525.04
2034	\$36,811.41	\$15,318.56	2.75%	\$0.00	\$0.00	\$0.00	\$0.00	\$52,129.97	81.49%	\$63,974.07
2035	\$52,129.97	\$15,739.82	2.75%	\$0.00	\$0.00	\$0.00	\$10,099.71	\$57,770.08	92.48%	\$62,468.33
2036	\$57,770.08	\$16,172.67	2.75%	\$0.00	\$0.00	\$0.00	\$0.00	\$73,942.75	103.42%	\$71,494.25
2037	\$73,942.75	\$16,617.42	2.75%	\$0.00	\$0.00	\$0.00	\$0.00	\$90,560.17	111.85%	\$80,969.33
2038	\$90,560.17	\$17,074.40	2.75%	\$0.00	\$0.00	\$0.00	\$0.00	\$107,634.57	118.39%	\$90,911.48
2039	\$107,634.57	\$17,543.95	2.75%	\$0.00	\$0.00	\$0.00	\$0.00	\$125,178.52	123.52%	\$101,339.24
2040	\$125,178.52	\$18,026.41	2.75%	\$0.00	\$0.00	\$0.00	\$19,107.97	\$124,096.96	133.84%	\$92,720.13
2041	\$124,096.96	\$18,522.14	2.75%	\$0.00	\$0.00	\$0.00	\$0.00	\$142,619.10	137.50%	\$103,723.67
2042	\$142,619.10	\$19,031.50	2.75%	\$0.00	\$0.00	\$0.00	\$9,000.30	\$152,650.30	143.99%	\$106,014.49
2043	\$152,650.30	\$19,554.87	2.75%	\$0.00	\$0.00	\$0.00	\$0.00	\$172,205.17	146.12%	\$117,854.97
2044	\$172,205.17	\$20,092.63	2.75%	\$0.00	\$0.00	\$0.00	\$0.00	\$192,297.80	147.62%	\$130,266.55
2045	\$192,297.80	\$20,645.18	2.75%	\$0.00	\$0.00	\$0.00	\$38,365.55	\$174,577.43	168.10%	\$103,850.98
2046	\$174,577.43	\$21,212.92	2.75%	\$0.00	\$0.00	\$0.00	\$0.00	\$195,790.35	168.22%	\$116,388.73
2047	\$195,790.35	\$21,796.28	2.75%	\$0.00	\$0.00	\$0.00	\$0.00	\$217,586.63	167.97%	\$129,537.55
2048	\$217,586.63	\$22,395.68	2.75%	\$0.00	\$0.00	\$0.00	\$4,665.76	\$235,316.55	169.87%	\$138,527.44
2049	\$235,316.55	\$23,011.56	2.75%	\$0.00	\$0.00	\$0.00	\$0.00	\$258,328.11	169.02%	\$152,839.72
2050	\$258,328.11	\$23,644.38	2.75%	\$0.00	\$0.00	\$0.00	\$0.00	\$281,972.49	168.01%	\$167,834.40
2051	\$281,972.49	\$24,294.60	2.75%	\$0.00	\$0.00	\$0.00	\$0.00	\$306,267.09	166.87%	\$183,538.21

Carolina Reserve Studies, Inc. | 843-421-1718 | https://carolinareservestudies.com/

Page 33 of 64

YEAR	STARTING BALANCE	CONTRIBUTIONS	PERCENT CHANGE	INTEREST	SPECIAL ASSMNT	ADDTIONAL E CAPITAL I	EXPENDITURE FUTURE COST	ENDING BALANCE	PERCENT FUNDED	FULLY FUNDED BALANCE
2052	\$306,267.09	\$24,962.70	2.75%	\$0.00	\$0.00	\$0.00	\$11,805.25	\$319,424.54	170.04%	\$187,848.92
2053	\$319,424.54	\$25,649.17	2.75%	\$0.00	\$0.00	\$0.00	\$0.00	\$345,073.71	168.56%	\$204,721.39
2054	\$345,073.71	\$26,354.52	2.75%	\$0.00	\$0.00	\$0.00	\$0.00	\$371,428.23	167.02%	\$222,379.76

Expenditures

ASSET №	NAME	UNIT COST	QTY.	FUTURE COST	USEFUL LIFE	NEXT ACTIVITY
2025 (Year 1)						
2025 (Year 1) Tot	al			\$0.00		
2026 (Year 2)						
2026 (Year 2) Tot	al			\$0.00		
2027 (Year 3)						
2027 (Year 3) Tot	al			\$0.00		
2028 (Year 4)						
2028 (Year 4) Tot	al			\$0.00		
2029 (Year 5)						
2029 (Year 5) Tot	al			\$0.00		
2030 (Year 6)						
B001.1	Storm Water Pond - Dredging (Estimated)	\$68,716.40	1 Allow	\$68,716.40	25у	N/A
B001.3	Weir	\$17,179.10	1 Allow	\$17,179.10	40y	N/A
2030 (Year 6) Tot	al			\$85,895.50		
2031 (Year 7)						
2031 (Year 7) Tot	al			\$0.00		
2032 (Year 8)						
B001.3	Fountain	\$6,861.81	1 Ea	\$6,861.81	10y	2042
2032 (Year 8) Tot	al			\$6,861.81		
2033 (Year 9)						
A004	Monument Sign - General Landscaping	\$3,105.95	1 Allow	\$3,105.95	15y	2048
2033 (Year 9) Tot	al			\$3,105.95		
2034 (Year 10)						
2034 (Year 10) To	otal			\$0.00		
2035 (Year 11)						

Carolina Reserve Studies, Inc. | 843-421-1718 | https://carolinareservestudies.com/

Fountain Sign on Brick Monument \$3,803.79 1 Ea \$3,803.79 203 No 2035 (Year 12) \$10,999.71 \$	ASSET №	NAME	UNIT COST	QTY.	FUTURE COST	USEFUL LIFE	NEXT ACTIVITY
2335 (Year 12) \$10,099,71 2036 (Year 12) \$0,00 2037 (Year 12) \$0,00 2037 (Year 12) \$0,00 2037 (Year 13) \$0,00 2037 (Year 13) \$0,00 2038 (Year 14) \$0,00 2039 (Year 15) \$0,00 2039 (Year 15) \$0,00 2040 (Year 16) \$10,07,97 2041 (Year 17) \$0,00 2041 (Year 17) \$0,00 2042 (Year 18) \$0,00 2042 (Year 18) \$0,00 2042 (Year 19) \$0,00 2042 (Year 19) \$0,00 2044 (Year 20) \$0,00	A003		\$6,295.92	1 Allow	\$6,295.92	20y	N/A
2336 (Year 12) 2036 (Year 12) Total \$0.00 2037 (Year 12) Total \$0.00 2037 (Year 13) Total \$0.00 2038 (Year 14) Total \$0.00 2038 (Year 14) Total \$0.00 2038 (Year 14) Total \$0.00 2039 (Year 14) Total \$0.00 2039 (Year 15) Total \$0.00 2039 (Year 15) Total \$0.00 2039 (Year 15) Total \$0.00 2040 (Year 16) Total \$0.00 2040 (Year 16) Total \$19,107,97 159 N. 2040 (Year 16) Total \$19,107,97 159 N. 2041 (Year 17) Total \$9,000.30 1 Ea \$9,000.30 109 204 2042 (Year 18) Total \$9,000.30 1 Ea \$9,000.30 109 204 2042 (Year 19) Total \$9,000.30 1 Ea \$9,000.30 109 204 2043 (Year 19) Total \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.	A001	Sign on Brick Monument	\$3,803.79	1 Ea	\$3,803.79	20y	N/A
2336 (Year 12) Total \$0.00 2037 (Year 13) Total \$0.00 2038 (Year 14) Total \$0.00 2039 (Year 15) Total \$0.00 2039 (Year 16) Total \$0.00 2040 (Year 16) Total \$0.00 2040 (Year 16) Total \$19,107.97 1.jub \$19,107.97 15y Nu 2040 (Year 16) Total \$19,107.97 1.jub \$19,107.97 15y Nu 2040 (Year 16) Total \$19,107.97 1.jub \$19,107.97 15y Nu 2041 (Year 17) Total \$0.00 \$10 \$0.00 204 2042 (Year 18) Total \$0.00.00 10y 204 2042 (Year 18) Total \$0.00.00 1 Ea \$9,000.30 10y 204 2043 (Year 19) Total \$0.000.30 1 Ea \$9,000.30 10y 204 2044 (Year 20) Total \$0.000 1 Ea \$0.00 2044 2044 (Year 20) Total \$0.00 10y 204 2044 (Year 20) Total \$0.006.7	2035 (Year 11)	Total			\$10,099.71		
2037 (Year 13) 2037 (Year 13) Total 2037 (Year 13) Total 2038 (Year 14) Total 2038 (Year 14) Total 2038 (Year 14) Total 2039 (Year 15) Total 2039 (Year 15) Total 2039 (Year 15) Total 2040 (Year 16) 2040 (Year 16) 2040 (Year 16) 2041 (Year 17) Total 2041 (Year 17) Total 2041 (Year 17) Total 2042 (Year 18) 2042 (Year 18) 2042 (Year 18) 2042 (Year 19) Total 2043 (Year 19) Total 2044 (Year 20) 2044 (Year 20) Total 2044 (Year 20) Total 2044 (Year 20) Total 2045 (Year 19) Total 2044 (Year 20) Total 2045 (Year 19) Total 2045 (Year 19) Total 2045 (Year 19) Total 2045 (Year 20) Total 2	2036 (Year 12)						
2037 (Year 13) Total \$0.00 2038 (Year 14) 2038 (Year 14) 2038 (Year 14) Total \$0.00 2039 (Year 15) \$0.00 2039 (Year 15) Total \$0.00 2040 (Year 15) Total \$0.00 2040 (Year 16) \$19,107.97 1.Job \$19,107.97 1.Sy N. 2040 (Year 16) Total \$19,107.97 1.Sy N. 2040 (Year 17) \$100 \$19,107.97 1.Sy N. 2041 (Year 17) \$100 \$19,107.97 1.Sy N. 2042 (Year 18) \$2042 (Year 18) \$19,107.97 1.Sy N. 2042 (Year 18) Fountain \$9,000.30 1.Ea \$9,000.30 1.0y 2042 2042 (Year 18) Fountain \$9,000.30 1.Ea \$9,000.30 1.0y 204 2043 (Year 19) Total \$9,000.30 1.Ea \$9,000.30 1.0y 204 2044 (Year 20) \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	2036 (Year 12)	Total			\$0.00		
2038 (Year 14) 2038 (Year 15) 2039 (Year 15) 2039 (Year 15) 2039 (Year 15) 2039 (Year 15) 2039 (Year 15) 2039 (Year 15) 2040 (Year 16) 2040 (Year 16) 2040 (Year 16) 2041 (Year 17) 2041 (Year 17) 2041 (Year 17) 2041 (Year 17) 2041 (Year 17) 2042 (Year 18) 2042 (Year 18) 2042 (Year 18) 2042 (Year 18) 2043 (Year 19) 2043 (Year 19) 2044 (Year 20) 2044 (Year 20) 2045 (Year 20	2037 (Year 13)						
2038 (Year 14) Total \$0.00 2039 (Year 15) \$0.00 2039 (Year 15) Total \$0.00 2040 (Year 16) \$19,107,97 1 Job \$19,107,97 1 Sy N. 2040 (Year 16) Total \$19,107,97 1 Job \$19,107,97 1 Sy N. 2041 (Year 16) Total \$19,107,97 1 Job \$19,107,97 1 Sy N. 2041 (Year 17) Total \$0.00 \$0.0	2037 (Year 13)	Total			\$0.00		
2039 (Year 15) \$0.00 2039 (Year 15) Total \$0.00 2040 (Year 16) \$19,107.97 1 Job \$19,107.97 15y Nu 2040 (Year 16) Total \$19,107.97 1 Job \$19,107.97 1 Sy Nu 2040 (Year 16) Total \$19,107.97 1 Job \$19,107.97 Nu Sy	2038 (Year 14)						
2039 (Year 15) Total \$0.00 2040 (Year 16) 8001.2 Pond Bank Improvements \$19,107.97 1 Job \$19,107.97 1 5y No 2040 (Year 16) Total \$19,107.97 1 Job \$19,107.97 1 5y No 2040 (Year 16) Total \$19,107.97 1 Job \$19,107.97 1 5y No 2041 (Year 17) \$100 \$19,107.97 \$0.00 <td>2038 (Year 14)</td> <td>Total</td> <td></td> <td></td> <td>\$0.00</td> <td></td> <td></td>	2038 (Year 14)	Total			\$0.00		
2040 (Year 16) B001.2 Pond Bank Improvements \$19,107.97 1 Job \$19,107.97 1 5y N 2040 (Year 16) Total \$19,107.97 1 Job \$19,107.97 1 5y N 2041 (Year 16) Total \$19,107.97 1 Job \$19,107.97 1 5y N 2041 (Year 16) Total \$19,107.97 1 Job \$19,107.97 1 5y N 2041 (Year 17) Total \$0.00 \$19,107.97 \$0.00	2039 (Year 15)						
B001.2 Pond Bank Improvements \$19,107.97 1 Job \$19,107.97 1 5y No 2040 (Year 16) Total \$19,107.97 1 Job \$19,107.97 1 Sy No 2041 (Year 16) Total \$19,107.97 \$10,007.97 \$10,007.97 1 Sy No 2041 (Year 17) \$2041 (Year 17) \$2041 (Year 17) \$2041 (Year 18) \$2042 (Year 18) 1 Sy 9,000.30 1 Ea \$9,000.30 1 Oy 2043 (Year 19) \$2043 (Year 19) \$2043 (Year 19) \$2043 (Year 20) \$2044 (Year 20) \$2045 (Year 21) \$209 (Year 21) <td>2039 (Year 15)</td> <td>Total</td> <td></td> <td></td> <td>\$0.00</td> <td></td> <td></td>	2039 (Year 15)	Total			\$0.00		
2040 (Year 16) Total \$19,107.97 2041 (Year 17) 2041 (Year 17) 2041 (Year 17) Total \$0.00 2042 (Year 18) \$0.00 2042 (Year 18) Fountain 8001.3 Fountain \$9,000.30 1 Ea \$9,000.30 10y 204 2042 (Year 18) Total \$9,000.30 1 Ea \$9,000.30 10y 204 2043 (Year 19) Total \$0.00 \$0.	2040 (Year 16)						
2041 (Year 17) 2041 (Year 17) Total \$0.00 2042 (Year 17) 2042 (Year 17) 2042 (Year 18) 8001.3 Fountain \$9,000.30 1 Ea \$9,000.30 1 Oy 2043 2042 (Year 18) Total \$9,000.30 1 Ea \$9,000.30 1 Oy 2043 2043 (Year 19) Total \$9,000.30 1 Ea \$9,000.30 1 Oy 2043 2043 (Year 19) Total \$0.00	B001.2	Pond Bank Improvements	\$19,107.97	1 Job	\$19,107.97	15y	N/A
2041 (Year 17) Total \$0.00 2042 (Year 18) 8001.3 Fountain \$9,000.30 1 Ea \$9,000.30 10y 203 2042 (Year 18) Total \$9,000.30 1 Ea \$9,000.30 10y 203 2043 (Year 19) \$9,000.30 1 Ea \$9,000.30 10y 203 2043 (Year 19) Total \$0.00	2040 (Year 16)	Total			\$19,107.97		
2042 (Year 18) 8001.3 Fountain \$9,000.30 1 Ea \$9,000.30 10y 203 2042 (Year 18) Total \$9,000.30 1 Ea \$9,000.30 10y 203 2043 (Year 19) Total \$9,000.30 1 Ea \$9,000.30 10y 203 2043 (Year 19) Total \$0.00	2041 (Year 17)						
B001.3 Fountain \$9,000.30 1 Ea \$9,000.30 1 Oy 203 2042 (Year 18) Total \$9,000.30 1 Ea \$9,000.30 100 203 2043 (Year 19) Total \$0.00	2041 (Year 17)	Total			\$0.00		
2042 (Year 18) Total \$9,000.30 2043 (Year 19) \$0.00 2043 (Year 19) Total \$0.00 2044 (Year 20) \$0.00 2044 (Year 20) Total \$0.00 2045 (Year 21) \$0.00 A002 Monument - Repointing \$3,096.77 1 Allow \$3,096.77 45y Ny B001.4 Riprap \$17,204.28 1 Allow \$17,204.28 35y Ny	2042 (Year 18)						
2043 (Year 19) \$0.00 \$0.00 2044 (Year 20) \$0.00 \$0.00 2044 (Year 20) Total \$0.00 \$0.00 2045 (Year 21) \$0.00 \$0.00 A002 Monument - Repointing \$3,096.77 1 Allow \$3,096.77 45y N/ B001.4 Riprap \$17,204.28 1 Allow \$17,204.28 35y N/	B001.3	Fountain	\$9,000.30	1 Ea	\$9,000.30	10y	2052
2043 (Year 19) Total \$0.00 2044 (Year 20) 2044 (Year 20) Total \$0.00 2044 (Year 20) Total \$0.00 2045 (Year 21) \$0.00 A002 Monument - Repointing \$3,096.77 1 Allow \$3,096.77 45y N/ B001.4 Riprap \$17,204.28 1 Allow \$17,204.28 35y N/	2042 (Year 18)	Total			\$9,000.30		
2044 (Year 20) \$0.00 2045 (Year 21) A002 Monument - Repointing \$3,096.77 1 Allow \$3,096.77 45y N/ B001.4 Riprap \$17,204.28 1 Allow \$17,204.28 35y N/	2043 (Year 19)						
2044 (Year 20) Total \$0.00 2045 (Year 21) A002 Monument - Repointing \$3,096.77 1 Allow \$3,096.77 45y N/ B001.4 Riprap \$17,204.28 1 Allow \$17,204.28 35y N/	2043 (Year 19)	Total			\$0.00		
2045 (Year 21) A002 Monument - Repointing \$3,096.77 1 Allow \$3,096.77 45y N/ B001.4 Riprap \$17,204.28 1 Allow \$17,204.28 35y N/	2044 (Year 20)						
A002 Monument - Repointing \$3,096.77 1 Allow \$3,096.77 45y N/ B001.4 Riprap \$17,204.28 1 Allow \$17,204.28 35y N/	2044 (Year 20)	Total			\$0.00		
B001.4 Riprap \$17,204.28 1 Allow \$17,204.28 35y N/	2045 (Year 21)						
	A002	Monument - Repointing	\$3,096.77	1 Allow	\$3,096.77	45y	N/A
B001.5 Storm Water Collection Box \$7,741.93 1 Ea \$7,741.93 40y N/	B001.4	Riprap	\$17,204.28	1 Allow	\$17,204.28	35у	N/A
	B001.5	Storm Water Collection Box	\$7,741.93	1 Ea	\$7,741.93	40y	N/A

Carolina Reserve Studies, Inc. | 843-421-1718 | https://carolinareservestudies.com/
ASSET №	NAME	UNIT COST	QTY.	FUTURE COST	USEFUL LIFE	NEXT ACTIVITY
B002	Storm Water Management	\$10,322.57	1 Allow	\$10,322.57	40y	N/A
2045 (Year 21)	Total			\$38,365.55		
2046 (Year 22)						
2046 (Year 22)	Total			\$0.00		
2047 (Year 23)						
2047 (Year 23)	Total			\$0.00		
2048 (Year 24)						
A004	Monument Sign - General Landscaping	\$4,665.76	1 Allow	\$4,665.76	15y	N/A
2048 (Year 24)	Total			\$4,665.76		
2049 (Year 25)						
2049 (Year 25)	Total			\$0.00		
2050 (Year 26)						
2050 (Year 26)	Total			\$0.00		
2051 (Year 27)						
2051 (Year 27)	Total			\$0.00		
2052 (Year 28)						
B001.3	Fountain	\$11,805.25	1 Ea	\$11,805.25	10y	N/A
2052 (Year 28)	Total			\$11,805.25		
2053 (Year 29)						
2053 (Year 29)	Total			\$0.00		
2054 (Year 30)						
2054 (Year 30)	Total			\$0.00		

Component Detail

A001 - Sign on Brick Monument

Basic Info

Type of Cost:	Replacement
Category:	A - Site
Condition:	Good to Fair

Comments/Notes

The sign was in average condition at the time of the inspection. The cost includes the purchase, mobilization, installation, removal and disposal of the prior sign.

Useful Life

Last Activity Date:	N/A
Est. Useful Life:	20y
Remaining Useful Life:	10y
Next Activity Date:	01/01/2035

Estimate Date:	01/01/2025
Estimate Source:	Data Base - Current Contracts
Cost Per Ea:	\$2,900.00
Total Quantity:	1 Ea
Total Current Cost:	\$2,900.00
Inflation Rate:	2.75%
Total Expenditures:	\$3,803.79



A002 - Monument - Repointing

Basic Info

Type of Cost:	Repairs & Maintenance
Category:	A - Site
Condition:	Good to Fair

Comments/Notes

We have assumed normal repairs for the repointing of the brick. The monument is considered to have a life span greater than the 30 year study being conducted. Brick can last well beyond 60 years. Thus, we have provided an allowance for repointing of the brick. We have also assumed periodic repairs and maintenance.



Useful Life

Last Activity Date:	N/A
Est. Useful Life:	45y
Remaining Useful Life:	20y
Next Activity Date:	01/01/2045

Estimate Date:	01/01/2025
Estimate Source:	Data Base - Current Contracts
Cost Per Allow:	\$1,800.00
Total Quantity:	1 Allow
Total Current Cost:	\$1,800.00
Inflation Rate:	2.75%
Total Expenditures:	\$3,096.77



A003 - Monument Sign - Electrical - Light and Fountain

Basic Info

Type of Cost:	Repairs & Maintenance
Category:	A - Site
Condition:	Good to Fair

Comments/Notes

The irrigation and electrical that could be observed were in average condition at the time of the inspection. An allowance has been provided for general maintenance.

Note: We were informed that the light was going to be relocated.

Useful Life

Last Activity Date:	N/A
Est. Useful Life:	20y
Remaining Useful Life:	10y
Next Activity Date:	01/01/2035

Estimate Date:	01/01/2025
Estimate Source:	Data Base - Current Contracts
Cost Per Allow:	\$4,800.00
Total Quantity:	1 Allow
Total Current Cost:	\$4,800.00
Inflation Rate:	2.75%
Total Expenditures:	\$6,295.92





A004 - Monument Sign - General Landscaping

Basic Info

Type of Cost:	Repairs & Maintenance
Category:	A - Site
Condition:	Good to Fair

Comments/Notes

The landscaping was in fair to average condition at the time of the inspection. An allowance has been provided for general maintenance. Landscaping does not all fail at one time.

Useful Life

Last Activity Date:	N/A
Est. Useful Life:	15y
Remaining Useful Life:	8y
Next Activity Date:	01/01/2033

Estimate Date:	01/01/2025
Estimate Source:	Data Base - Current Contracts
Cost Per Allow:	\$2,500.00
Total Quantity:	1 Allow
Total Current Cost:	\$2,500.00
Inflation Rate:	2.75%
Total Expenditures:	\$7,771.71

B001.1 - Storm Water Pond - Dredging (Estimated)

Basic Info

Type of Cost:	Repairs & Maintenance
Category:	B - Storm Water Ponds
Condition:	Fair

Comments/Notes

From the report by High Water Pond Management, 395 cubic yards of sediment is recommending for dredging. They highly reccomend pond bank improvements as there is significant east bank shoreline erosion. If this is not corrected it will lead to higher maintenance costs.

The bathymetric study indicates areas to be dredged and we recommend that all of the areas indicated be dredged given the age of the pond. The High Water Pond Management company report provides estimates ranging from \$39,500 to \$65,250 for dresging and \$6,000 to \$8,500 for disposal material. We have utilized \$60,000 as the cost of the dredging and disposal. Tge HOA may want to consult with a civil engineering firm to review the current pond design and follow their recommendations to enhance the ponds capability, etc.

The current bathymetric is provided in this report.

An allowance has been provided for the discharge box at the far end of the pond. No engineering drawings were provided and a regular inspection and maintenance is suggested. Based on our experience, the maintenance of the pond can require the expenditure of significant reserve funds. We have observed that some Associations do not have a plan for monitoring their ponds. The issue of maintaining them arises after significant sediment is observed or

Useful Life

Last Activity Date:	N/A
Est. Useful Life:	25y
Remaining Useful Life:	5у
Next Activity Date:	01/01/2030

Estimate Date:	01/01/2025
Estimate Source:	Data Base - Current Contracts
Cost Per Allow:	\$60,000.00
Total Quantity:	1 Allow
Total Current Cost:	\$60,000.00
Inflation Rate:	2.75%
Total Expenditures:	\$68,716.40

the area in question has become more of a marsh than a pond.

We strongly urge our clients to obtain Bathymetric studies on their ponds about every three years. If a significant amount of sediment is discovered, then more frequent Bathymetric studies should be considered. A Bathymetric study will allow your Board and Community Manager to understand the depth of the storm water pond as well as provide a topographical map of the underwater features of your pond or lake.

A number of methods can be used for Bathymetric surveys: Multi-beam surveying: A multi-beam echo sounder attached to a boat sends out a wide array of beams across a "swath" of the waterbody floor. This data is then collected and presented as a map of the underwater features of the pond. Using this information will provide a guide to managing your pond. For example, a Bathymetric study will show high areas (increased sediment) and low areas which help in the maintenance and health of the pond. Spot dredging can be used in some circumstances where high areas are discovered. In some cases, a large area may be required to be dredged. Dredging can be expensive as the cost includes not only the removal of the sediment from your pond but also the cost of the transportation of the dredged material and any permits and/or governmental fees that may be required.

















Indigo on the Ashley Bathymetry Mapping

Conducted by High Water Pond Management LLC Date: 03/21/2024

Location: North Charleston, SC









Each contour line indicates a 1ft change in depth with the darker colors representing the deepest readings.



Number in red indicate the thickness of the sediment deposit layer in ft.

The shaded color indicates the bottom hardness. This whole pond is on the soft side indicating sediment deposits throughout the pond.



Dredging Projections

This would be my rec varia of material.



ndation for maintenance dredging. Removing a total of 395

Areas shaded orange could use dredging.

The number noted in red text is the number of cubic yards to be removed from the area.

Dredging Cost Breakdown

Maintenance Dredging: Remove 305 yards of material. Eco bags can be used and deposited in the common area around the gond to the right of the influenceek to cut down on the cost of having material off aits. Estimated Cost Dredging: \$33,500.09-565,250.00 Sediment Disposal if moved off site \$5,000.00 \$450,000

Pond Notes.

Significant shoreline enotion is present along the entire east bank of the pond and should be addressed to reduce sediment washing into the water. If left unaddressed, this will degrade the pond's appearance and lead to increased maintenance costs over time.

At a minimum, I recommend adjusting mowing practices to establish a vegetated buffer around the pond, ideally between 2 to 6 feet wide—the larger, the better. This buffer will help slow runoff and stabilize the soil, reducing further erosion.

Given the severity of the erosion, I also recommend implementing a **coir log creation repair**. This process involves staking biodegradable coconst fiber logs along the shorekine, backfilling with soil, and planting one wetland plant per foot. This method will similarize the shorekine, allowing native explantion to establish and create a long-term, sustainable solution for erosion control. We will provide you with an estimate for this service.

B001.2 - Pond Bank Improvements

Basic Info

Type of Cost:	Replacement
Category:	A - Site
Condition:	Fair

Comments/Notes

We have assumed that the HOA will install the items listed by High Water Pond Management. The bank of the pond needs updating and general maintenance.

The following items are included in the High Water contract:

Coir Logs and Native Wetland Plants. There is a 1 (one) year warranty. Failure to implement this plan will allow more run-off into the pond and increase the amount of dredged material to be removed. We have assumed this project will be completed in 2025.



Useful Life

Last Activity Date:	N/A
Est. Useful Life:	15y
Remaining Useful Life:	15y
Next Activity Date:	01/01/2040

Estimate Date:	01/01/2025
Estimate Source:	Data Base - Current Contracts
Cost Per Job:	\$12,720.00
Total Quantity:	1 Job
Total Current Cost:	\$12,720.00
Inflation Rate:	2.75%
Total Expenditures:	\$19,107.97



			-	-
ESTIMATE Righ Water Previ Management List S20 Exuth College Read #1388 "Menagtics, MC 25400	Incomp watercost cars + 1 (Int)-180-1882 Into Jawa Aghwatercost carb		HIG WATE	R
BH to Fidgo on the Astroy HOA		Mipts Indigs on the	Advies HOA	
Estimate details Estimatorio: 1117 Estimato-Star 03/28/0025				
Product or service	Description	ay	Fate	Amount
Catrilog Installation	Repair 100Hof showing armiter by metaling floir Logo and netwo welland plants.	820	\$16.00	811,520,80
	Contage will be staked to the bark and back/deal with teperal.			
	mediano planta witi be materied at a rose of one plan best for a rose of 500 planta. Each plant will be individually second with and a tapito.			
	Plants will be warranted against inpresent annalation. The Warranty period is one year after including.			
	Incadeduse to offeed altor rate of \$200,00 per tool if the coalitioner works to adjust the scope of the restar.			
. Mubilization Fee	Price to being set vehicles, any privaril and repletion to be the west with	1	\$1,238.00	\$1,00.00
	Tura		\$	12,720.00
Assepted data	Accepted by			

B001.3 - Fountain

Basic Info

Type of Cost:	Replacement
Category:	B - Storm Water Ponds
Condition:	Good to Fair

Comments/Notes

The floating fountain was in average condition at the time of the inspection. The cost includes the wiring, electrical connections, SureSink tubing, pumps, control station, electrical outlets, installation, and permitting.

Useful Life

Last Activity Date:	N/A
Est. Useful Life:	10y
Remaining Useful Life:	7у
Next Activity Date:	01/01/2032

Estimate Date:	01/01/2025
Estimate Source:	Data Base - Current Contracts
Cost Per Ea:	\$5,675.00
Total Quantity:	1 Ea
Total Current Cost:	\$5,675.00
Inflation Rate:	2.75%
Total Expenditures:	\$27,667.36



B001.3 - Weir

Basic Info

Type of Cost:	Repairs & Maintenance
Category:	B - Storm Water Ponds
Condition:	Fair to Poor

Comments/Notes

The weir is showing signs of failure and we strongly encourage the HOA to make the required repairs. The weir is designed to maintain the water level of the pond. If the weir fails, the pond will drain down the lowest point of the pond. The cost to repair the weir may be more or less than estimated as no engineering reports were provided. We recommend that a civil engineering firm inspect the weir and provide a cost and plan of action for the repairs.



Useful Life

Last Activity Date:	N/A
Est. Useful Life:	40y
Remaining Useful Life:	5у
Next Activity Date:	01/01/2030

Estimate Date:	01/01/2025
Estimate Source:	Data Base - Current Contracts
Cost Per Allow:	\$15,000.00
Total Quantity:	1 Allow
Total Current Cost:	\$15,000.00
Inflation Rate:	2.75%
Total Expenditures:	\$17,179.10







B001.4 - Riprap

Basic Info

Type of Cost:	Replacement
Category:	B - Storm Water Ponds
Condition:	Good to Fair

Comments/Notes

Riprap is rocky material placed along storm water management ponds to protect from scour and erosion. Rocks used range from 4 inches to over 2 feet. The size of the rock needed on a project depends on the steepness of the slope and how fast water is moving. Riprap is a very durable, naturallooking treatment. Since this is considered a longterm asset, an allowance has been provided for the eventual erosion of the soil and replacing the riprap as needed. The Association is encouraged to regularly inspect the pond and the associated riprap after heavy storms or periods of flooding.

Useful Life

Last Activity Date:	N/A
Est. Useful Life:	35у
Remaining Useful Life:	20y
Next Activity Date:	01/01/2045

Estimate Date:	01/01/2025
Estimate Source:	Data Base - Current Contracts
Cost Per Allow:	\$10,000.00
Total Quantity:	1 Allow
Total Current Cost:	\$10,000.00
Inflation Rate:	2.75%
Total Expenditures:	\$17,204.28









B001.5 - Storm Water Collection Box

Basic Info

Type of Cost:	Replacement
Category:	B - Storm Water Ponds
Condition:	Good to Fair

Comments/Notes

The storm water collection box with trash guard was in average condition at the time of the inspection. These type of boxes should be inspected regularly for blockage, otherwise overflow erosion will occur creating areas of washout. The piping associated with these boxes and the storm water management pond is excluded as no dimensions or drawings were provided.



Useful Life

Last Activity Date:	N/A
Est. Useful Life:	40y
Remaining Useful Life:	20y
Next Activity Date:	01/01/2045

Estimate Date:	01/01/2025
Estimate Source:	Data Base - Current Contracts
Cost Per Ea:	\$4,500.00
Total Quantity:	1 Ea
Total Current Cost:	\$4,500.00
Inflation Rate:	2.75%
Total Expenditures:	\$7,741.93



B002 - Storm Water Management

Basic Info

Type of Cost:	Replacement
Category:	B - Storm Water Ponds
Condition:	Good to Fair

Comments/Notes

No plans or dimension drawings for the underground piping system were provided. Thus, an allowance has been provided. The storm drains are part of the overall storm water management system and underground piping. We recommend a regular annual inspection of the underground pipes and street drains. We have assumed normal maintenance. We have used 10% of the total storm water management ponds. It should be noted that some erosion from the storm water pipes into the ponds were observed. This should be looked into by a professional contractor.



Useful Life

Last Activity Date:	N/A
Est. Useful Life:	40y
Remaining Useful Life:	20y
Next Activity Date:	01/01/2045

Estimate Date:	01/01/2025
Estimate Source:	Data Base - Current Contracts
Cost Per Allow:	\$6,000.00
Total Quantity:	1 Allow
Total Current Cost:	\$6,000.00
Inflation Rate:	2.75%
Total Expenditures:	\$10,322.57



SUMMARY OF EXCLUSIONS

Note: The exclusions for your study are based on the scope of work within our reserve study Agreement and/or our training. Those items "not included" in the scope of work will be excluded. Any item that has a cost of less than \$1,500 will be excluded unless it is deemed critical to this study. These excluded items are as follows:

Site
 Aphalt Streets
 Curb and Gutter
 Sidewalks
 Private Walkways to the front of entrances
 Driveways

2. Site Improvements Site Drainage - Clean/Repair/Replace **Retaining Walls** Site Grading Berms Swales Culverts **Temporary Utility Ditches** Underground Communication Lines: Cable, TV, Phone, Internet Gas Lines Utility Company Improvements **Community Owned Underground Pipes Underground Sprinkler Piping** Sprinkler Heads Sprinkler Electrical Wiring Sprinkler Control Panels County Owned Drain Lines

3. All Homes - Single Family Homes

Building Foundations Major Structural Supporting Elements **Concrete Structure Supporting Elements Raised Concrete Slab** Poured Concrete Slab **Concrete Floor Slabs Interior Concrete Floor Slabs Exterior Concrete Retaining Walls Roof Structure** Wall Structure Floor Structure Unit Appliances Unit HVAC Systems - Air Handlers/Condensers Unit Exterior Doors Unit Exterior Windows Unit Plumbing Unit Electrical Unit Landscaping Unit Driveways Unit Sidewalks **Unit Garages** Unit stoops, porches, decks walkways, driveways Alarm Systems: Fire / Smoke / Police

4. Common Elements – Utilities

Underground Service Entrance Cables Main Panels Distribution Panels / Sub-Panels Overhead Power Lines Underground Power Lines Underground Electrical Service Underground Piping Electrical Services to Individual Units Electrical Service – Interior of Unit Sewer Mains Water Mains Gas Lines to Common Units Transformers Electrical Services

5. Maintenance and Repair Exclusions:

General Repairs Partial Repairs Community Damage Repairs Future Capital Improvements Right of Ways Temporary Right of Ways Utility Easements Perpetual Easements

6. Long-Lived Component(s) Exclusions

Long Life Exclusions. These are long-lived components which when maintained to industry standards will have an economic life equal to or greater that the economic life of community, are normally excluded from the inventory for replacement.

Exterior masonry, stonework, large retaining walls, etc. are assumed to have an unlimited economic life or an economic life that exceeds 30 years. However, normal maintenance like repointing and/or power washing, etc. is normally required. These are then included in our analysis as deemed appropriate and an allowance may be so allocated.

7. Governmental Exclusions (Owned by Local, County, State or Federal Government)

Roads and Points of Access Right of Ways Curb and Gutters Security Cameras Security Wiring Security Control Panels Warning Systems Notification Systems Exterior Lights Stop Lights Warning Lights Warning Systems Drainage Areas Underground Pipes Fencing Drop Off Boxes - Mailboxes

Addendum Additional Terms and Definitions

Component: The individual line items in the Reserve Study developed or updated in the Physical Analysis. These elements form the building blocks for the Reserve Study. Components typically are: 1) Association or cooperative responsibility, 2) with limited useful life expectancies, 3) predictable remaining useful life expectancies, 4) above a minimum threshold cost, and 5) as required by local codes.

Component Inventory: The task of selecting and quantifying reserve components. This task can be accomplished through on-site visual observations, review of design and organizational documents, a review of established precedents, and discussion with appropriate representative(s) of the Association or cooperative.

Component Method: A method of developing a Reserve Funding Plan where the total contribution is based on the sum of contributions for individual components. See "Cash Flow Method."

Condition Assessment: The task of evaluating the current condition of the component based on observed or reported characteristics.

Current Replacement Cost: See "Replacement Cost."

Deficit: An actual (or projected) reserve balance less than the fully funded balance. The opposite would be a surplus.

Effective Age: The difference between useful life and remaining useful life. Not always equivalent to chronological age, since some components age irregularly. Used primarily in computations.

Financial Analysis: The portion of a Reserve Study where current status of the reserves (measured as cash or percent funded) and a recommended reserve contribution rate (Reserve Funding Plan) are derived, and the projected reserve income and expense over time is presented. The Financial Analysis is one of the

two parts of a Reserve Study.

Fully Funded: 100% funded. When the actual (or projected) reserve balance is equal to the fully funded balance.

Full Funded Balance (FFB): Total accrued depreciation. An indicator against which actual (or projected) reserve balance can be compared. The reserve balance that is in direct proportion to the fraction of life "used up" of the current repair or replacement cost. This number is calculated for each component, then summed together for an Association total. Two formulas can be utilized depending on the provider's sensitivity to interest and inflation effects. Note: Both yield identical results when interest and inflation are equivalent.

FFB = Current Cost x Effective Age / Useful Life

or

FFB = (Current Cost x Effective Age / Useful Life) + [(Current Cost x Effective Age / Useful Life) / (1 + Interest Rate) ^ Remaining Life] - [(Current Cost x Effective Age / Useful Life) / (1 + Inflation Rate) ^ Remaining Life]

Fund Status: The status of the reserve fund as compared to an established benchmark such as percent funding.

Funding Goals: Independent of methodology utilized, the following represent the basic categories of Funding Plan goals:

1. Baseline Funding: Establishing a reserve funding goal of keeping the reserve cash balance above zero.

2. Fully Funding: Setting a reserve funding goal of attaining and maintaining reserves at or near 100% funded.

3. Statutory Funding: Establishing a reserve funding goal of setting aside the specific minimum or regulatory amount of reserves required by local statues or financing agencies.

4. Threshold Funding: Establishing a reserve funding goal of keeping the reserve balance above a specified dollar or percent funded amount. Depending on the threshold, this may be more or less conservative than "fully funding."

Funding Plan: An Association or cooperative's plan to provide income to a reserve fund to offset anticipated expenditures from that fund.

Funding Principles: Sufficient funds when required Fiscally responsible Stable contribution rate over the years Evenly distributed contributions over the years

Life and Valuation Estimates: The task of estimating useful life, remaining useful life, and repair or replacement costs for the reserve components.

Percent Funded: The ratio, at a particular point of time (typically the beginning of the fiscal year), of the actual (or projected) reserve balance to the fully funded balance, expressed as a percentage.

Physical Analysis: The portion of the Reserve Study where the Component Inventory, Condition Assessment, and Life and Valuation Estimate tasks are performed. This represents one of the two parts of the Reserve Study.

Remaining Useful Life (RUL): Also referred to as "remaining life" (RL). The estimated time, in years, that a reserve component can be expected to continue to serve its intended function. Projects anticipated to occur in the initial year have "zero" remaining useful life.

Replacement Cost: The cost of replacing, repairing, or restoring a reserve component to its original functional condition. The current replacement cost would be the cost to replace, repair, or restore the component during that particular year.

Reserve Balance: Actual or projected funds as of a particular point in time that the Association or cooperative has identified for use to defray the future repair or replacement of those major components which the Association or cooperative is obligated to maintain. Also known as reserves, reserve accounts and cash reserves. Based upon information provided and not audited.

Reserve Provider: An individual that prepares Reserve Studies.

Reserve Study: A budget planning tool which identifies the current status of the reserve fund and a stable and equitable Funding Plan to offset the anticipated future major capital expenditures. The Reserve Study consists of two parts: the

Physical Analysis and the Financial Analysis. "Our budget and finance committee are soliciting proposals to update our Reserve Study for next year's budget."

Special Assessment: An assessment levied on the members of an Association or cooperative in addition to regular assessments. Special assessments are often regulated by governing documents or local statutes.

Surplus: An actual (or projected) reserve balance greater than the fully funded balance. See "Deficit."

Useful Life (UL): Total useful life or depreciable life. The estimated time, in years, that a reserve component can be expected to serve its intended function if properly constructed in its present application or installation.

Component Funding

Of course, a reserve study is about planning to have sufficient funds for future 'events'. A discussion about philosophies of the study will be left for another time. Most studies are done by pooling all future expenses. Distribution of funds on a per component bases is often neglected because it really does not lend to what the Association considers adequately funded.

But funding at the component level is often presented in a study even when some other funding philosophy is adopted.

Fully Funded

The present replacement value 'times' the age of the component 'divided by' the useful life.

Fully Funded = present value * age / useful life.

As you can see, this is just an approximation of required funds when interest on reserves and inflation of the component (future cost) should be considered. There are more complicated formulas that take inflation and interest into account but this is done only to get closer to a true annuity calculation.

Contingency

An Association may decide to keep a percentage of Component Method funds aside. This contingency is taken from the deposited funds before distribution is done. After the required contribution to funds is calculated it is increased by this percentage in each year of the projection. Annual Deposit. The calculated requirement for annual contribution to reserves was derived using the Cash Flow Method.

Minimum Balance. Threshold or minimum balance, is used in the Cash Flow Threshold Method only.

CAI Standards. The Community Associations Institute guidelines provide details as to the information (component parts) to be presented in a reserve study.

Component Replacement Time Frame. When an component has reached the end of the economic life.

Number of Years of the Study. Per the guidelines for each study, the report must use a minimum of twenty years. We have used a 30 Year period.

Goal of a Reserve Study. The study is used as a tool to estimate the annual funding to the reserve fund.

Industry Standards for Reserve Studies

The goal of our reserve study is to guide the Association toward becoming fully funded over the 30-year period listed in the study. The different ranges in levels of funding are listed below:

70 - 100 % Funded – Good

The reserve account at this level of funding is considered to have a good or high level of funding. The risk for a special assessments or loans, and deferred maintenance are low.

30 – 70 % Funded – Fair

A reserve account that is funded at the fair level is on the right track to be adequately funded. However, if large expenses arise such as unexpected component failures or rapidly rising costs then the funding level may decline.

0 - 30 % Funded - Poor

A poor funding level can lead an Association to use loans and/or a special assessment to cover the required level of reserves. The Association may not be able to meet their capital improvements as needed. Poor funding of reserves can lead to a community losing market appeal which then leads to longer marketing time, reduced sales, and lower home resale prices.

Qualification of the Reserve Specialist

Emerson Treffer, RS 40+ YEARS OF EXPERIENCE

Emerson Treffer spent more than 40 years inspecting, analyzing, and completing studies for residential communities, commercial and industrial buildings, and religious facilities. He holds a Bachelor of Science Degree in Business Administration from the University of Maryland. He has obtained the RS (Residential Specialist) Designation from CAI and has completed reserve studies throughout South Carolina from Fort Mill to Spartanburg, Hilton Head, Myrtle Beach, and from Ocean Isle to Wilmington, North Carolina. Mr. Treffer also holds the CPI (Certified Professional Inspector) designation from InterNachi.

He has experience working with Board Members and providing guidance during and after the completion of the reserve study process. Mr. Treffer also has realworld experience as he has served as a Board Member for three years. He clearly understands the challenges and demands place on Board Members. He has published articles in professionnal journals.

In addition, Mr. Treffer has completed fire damage inspections, water damage inspections, final construction inspections, OSHA inspections, interim commercial construction inspections, and site drainage inspections.

His experience includes consulting on construction defect cases, contamination cases, and flood damage cases. His experience includes inspecting and analyzing the Tower at Gettysburg as well as historic properties. Mr. Treffer has qualified as an expert witness in County, State and Federal Courts and has published professional papers regarding the real estate industry.