

## 2022 Reserve Study



ReserveStudyCarolinas.com



August 9, 2021

Dear Marsha,

Please find attached our reserve study draft for Eagle Pointe Shores Homeowners Association, inc.The reserve level on 1/1/22, the beginning of the fiscal year is anticipated to be \$145,692.00, which constitutes 22.71% of full funded reserves, a weak level of reserves.

We have the following observations:

1. It is believed that these roads were, at least partially, built inadequately and may require extensive repairs. Extensive damage was found on Talon Ridge Ct. We have included an allowance, but the cost for repairs has yet to be determined. The board should contact a qualified engineer to inspect the roads to determine the street's condition and the provide a solution if a problem does exist.

2. The picnic shelters are not being maintained.

It does take a little time to familiarize yourself with some of the terms and the calculations. Please read the preface, which does a good job to explaining the how to read this report. This pdf file includes bookmarks on the left side for ease of navigation, allowing you to quickly locate sections. If there are any questions I'd be happy to address them.

Since you may not be familiar with a reserve study, or at least our reserve studies, we felt it important to explain some fundamental assumptions that shape, in part, our strategy in developing a plan for your community's capital reserves.

- The reserve study is funded with the goal of reaching 75% full funding in 30 years. This is a moderately conservative financial approach. If the board wishes, we can adjust the funding up (more conservative, not needed in your case) or down (less conservative). Additionally, we can adjust some of the underlying assumptions to further alleviate the financial burden. We are happy to discuss in more detail how the study can be customized to your community's particular circumstances.
- We assume your community will continue operating indefinitely into the future. In some areas of the country, where land prices are high, mature communities are



occasionally redeveloped. However, we don't anticipate this occurring with your community.

- Most reserve providers would likely acknowledge that accuracy in predicting replacement/repair dates 30 years into the future is low. Assigned replacement dates are rough estimates and are often influenced more by aesthetics, reserve fund levels, and board whims than necessity. Fortunately, as long as predicted replacement dates are relatively close, a reserve study will have saved most of the money required for the project. A reserve study is more a guide than a set of instructions.
- The costs that we provide are meant to be budgetary. Contractors' estimates will vary significantly. As these estimates are projected into the future they can be profoundly affected by the global commodities market, economic conditions, inflation, etc. Thus, the numbers that we assign will vary, sometimes higher, sometimes lower. While there may be discrepancies for individual components, the aggregation of all your community's assets help to balance these discrepancies. Thus, any money saved by completing a capital project performed for less than the projected estimate will most likely be needed for other reserve items and should not be spent on a lavish luau.
- A condition analysis is not an inspection. A site visit's purpose is to review the condition of the community's assets to estimate the remaining service life only. There is no forensic or destructive testing. Construction and design defects as well as unsafe conditions maybe noted, but their discovery is incidental and not the purpose of the site visit.
- Since a reserve analysis includes only visual observation it is impossible to accurately identify, measure or quantify estimate useful lives or costs for any assets that are partially or fully concealed or buried. Examples include, but are not limited to water, sewer, and storm lines, manholes, and storm boxes. Although these items may be included in the reserve analysis, discrepancies may exist between the study and actual conditions. For this same reason an omission of such items may also exist.
- A reserve study is a budgeting tool for replacement of assets that have a reliable useful life. A reserve study may include funds for repairs for defective construction or other conditions that fall outside the reserve, but these are speculative in nature. We don't diagnose defects or specify repairs required, so the cost of these repairs is essentially unknown.



• If no changes are requested within 90 days of issuance of the first draft, this first draft will be considered a final draft, despite the draft watermark on the report. No final draft will be sent, unless requested.

This report represents our best attempt to accurately represent the future financial needs of the association based upon the information available to us at the time of preparation. We hope that you find our report format both informative and useful. All of us at Reserve Professional have enjoyed serving you and providing the most detailed, comprehensive and useful reserve analysis study available.

Thank you for utilizing our services and please consider referring us to your colleagues and friends. We do not advertise and rely on referrals, which helps to keep your costs down.

## We rely on referrals, not advertising. We believe in solid work at fair prices.

Respectfully,

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**Professional Designations:** 

Professional Reserve Analyst (PRA): Ass. of Professional Reserve Analysts, Certificate #2333 Reserve Specialist (RS): Community Associations Institute, Certification # 276 Stormwater BMP Inspection & Maintenance Professional, NC Coop Ext, Certification # 3164 BS, Construction Management: East Carolina University



NC Home Inspector, License # 2972 (inactive) NC General Contractor, License # 66871 HOA Board President, 12 years (Retired)

DRAFT

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This preface is intended to provide an introduction to the enclosed reserve analysis as well as detailed information regarding the reserve analysis report format, reserve fund goals/objectives and calculation methods. The following sections are included in this preface:

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### ◆ ◆ ◆ ◆ INTRODUCTION TO RESERVE BUDGETING ◆ ◆ ◆ ◆

The Board of Directors of an association has a legal and fiduciary duty to maintain the community in a good state of repair. Individual unit property values are significantly impacted by the level of maintenance and upkeep provided by the association as well as the amount of the regular assessment charged to each owner.

A prudent plan must be implemented to address the issues of long-range maintenance, repair and replacement of the common areas. Additionally, the plan should recognize that the value of each unit is affected by the amount of the regular assessment charged to each unit.

There is a fine line between "not enough," "just right" and "too much." Each member of an association should contribute to the reserve fund for their proportionate amount of "depreciation" (or "use") of the reserve components. Through time, if each owner contributes his "fair share" into the reserve fund for the depreciation of the reserve components, then the possibility of large increases in regular assessments or special assessments will be minimized.

An accurate reserve analysis and a "healthy" reserve fund are essential to protect and maintain the association's common areas and the property values of the individual unit owners. A comprehensive reserve analysis is one of the most significant elements of any association's long-range plan and provides the critical link between sound business judgment and good fiscal planning. The reserve analysis provides a "financial blueprint" for the future of an association.

## ♦ ♦ ♦ UNDERSTANDING THE RESERVE ANALYSIS ♦ ♦

In order for the reserve analysis to be useful, it must be understandable by a variety of individuals. Board members (from seasoned, experienced Board members to new Board members), property managers, accountants, attorneys and even homeowners may ultimately review the reserve analysis. The reserve analysis must be detailed enough to provide a comprehensive analysis, yet simple enough to enable less experienced individuals to understand the results.

There are four key bits of information that a comprehensive reserve analysis should provide: Budget, Percent Funded, Projections and Inventory. This information is described as follows:

#### Budget

Amount recommended to be transferred into the reserve account for the fiscal year for which the reserve analysis was prepared. In some cases, the reserve analysis may present two or more funding plans based on different goals/ objectives. The Board should have a clear understanding of the differences among these funding goals/objectives prior to implementing one of them in the annual budget.

#### Percent Funded

Measure of the reserve fund "health" (expressed as a percentage) as of the beginning of the fiscal year for which the

reserve analysis was prepared. This figure is the ratio of the actual reserve fund on hand to the fully funded balance. A reserve fund that is "100% funded" means the association has accumulated the proportionately correct amount of money, to date, for the reserve components it maintains.

#### **Projections**

Indicate the "level of service" the association will provide the membership as well as a "road map" for the fiscal future of the association. The projections define the timetables for repairs and replacements, such as when the buildings will be painted or when the asphalt will be seal coated. The projections also show the financial plan for the association – when an underfunded association will "catch up" or how a properly funded association will remain fiscally "healthy."

#### Inventory

Complete listing of the reserve components. Key bits of information are available for each reserve component, including placed-in-service date, useful life, remaining life, replacement year, quantity, current cost of replacement, future cost of replacement and analyst's comments.

## ♦ ♦ ♦ RESERVE FUNDING GOALS / OBJECTIVES ♦ ♦ ♦ ♦

There are four reserve funding goals/objectives which may be used to develop a reserve funding plan that corresponds with the risk tolerance of the association: Full Funding, Baseline Funding, Threshold Funding and Statutory Funding. These goals/objectives are described as follows:

#### Full Funding

Describes the goal/objective to have reserves on hand equivalent to the value of the deterioration of the each reserve component. The objective of this funding goal is to achieve and/or maintain a 100% percent funded reserve fund. The component calculation method or cash flow calculation method is typically used to develop a full funding plan.

#### **Baseline Funding**

Describes the goal/objective to have sufficient reserves on hand to never completely run out of money. The objective of this funding goal is to simply pay for all reserve expenses as they come due without regard to the association's percent funded. The cash flow calculation method is typically used to develop a baseline funding plan.

#### Threshold Funding

Describes the goal/objective other than the 100% level (full funding) or just staying cash-positive (baseline funding). This threshold goal/objective may be a specific percent funded target or a cash balance target. Threshold funding is often a value chosen between full funding and baseline funding. The cash flow calculation method is typically used to develop a threshold funding plan.

#### Statutory Funding

Describes the pursuit of an objective as described or required by local laws or codes. The component calculation method or cash flow calculation method is typically used to develop a statutory funding plan.

### ♦ ♦ ♦ RESERVE FUNDING CALCULATION METHODS

There are two funding methods which can be used to develop a reserve funding plan based on a reserve funding goal/ objective: Component Calculation Method and Cash Flow Calculation Method. These calculation methods are described as follows:

#### **Component Calculation Method**

This calculation method develops a funding plan for each individual reserve component. The sum of the funding plan for each component equals the total funding plan for the association. This method is often referred to as the "straight line"

method and is widely believed to be the most conservative reserve funding method. This method structures a funding plan that enables the association to pay all reserve expenditures as they come due, enables the association to achieve the ideal level of reserves in time, and then enables the association to maintain the ideal level of reserves through time. The following is a detailed description of the component calculation method:

Step 1: Calculation of fully funded balance for each component

The fully funded balance is calculated for each component based on its age, useful life and current cost. The actual formula is as follows:

Fully Funded Balance =  $\frac{Age}{Useful Life}$  X Current Cost

Step 2: Distribution of current reserve funds

The association's current reserve funds are assigned to (or distributed amongst) the reserve components based on each component's remaining life and fully funded balance as follows:

Pass 1: Components are organized in remaining life order, from least to greatest, and the current reserve funds are assigned to each component up to its fully funded balance, until reserves are exhausted.

Pass 2: If all components are assigned their fully funded balance and additional funds exist, they are assigned in a "second pass." Again, the components are organized in remaining life order, from least to greatest, and the remaining current reserve funds are assigned to each component up to its current cost, until reserves are exhausted.

Pass 3: If all components are assigned their current cost and additional funds exist, they are assigned in a "third pass." Components with a remaining life of zero years are assigned double their current cost.

Distributing, or assigning, the current reserve funds in this manner is the most efficient use of the funds on hand – it defers the make-up period of any underfunded reserves over the lives of the components with the largest remaining lives.

Step 3: Developing a funding plan

After step 2, all components have a "starting" balance. A calculation is made to determine what funding would be required to get from the starting balance to the future cost over the number of years remaining until replacement. The funding plan incorporates the annual contribution increase parameter to develop a "stair stepped" contribution.

For example, if an association needs to accumulate \$100,000 in ten years, \$10,000 could be contributed each year. Alternatively, the association could contribute \$8,723 in the first year and increase the contribution by 3% each year thereafter until the tenth year.

In most cases, this rate should match the inflation parameter. Matching the annual contribution increase parameter to the inflation parameter indicates, in theory, that member contributions should increase at the same rate as the cost of living (inflation parameter). Due to the "time value of money," this creates the most equitable distribution of member contributions through time.

Using an annual contribution increase parameter that is greater than the inflation parameter will reduce the burden to the current membership at the expense of the future membership. Using an annual contribution increase parameter that is less than the inflation parameter will increase the burden to the current membership to the benefit of the future membership. The following chart shows a comparison:

	0% Increase	3% Increase	10% Increase
Year 1	\$10,000.00	\$8,723.05	\$6,274.54
Year 2	\$10,000.00	\$8,984.74	\$6,901.99
Year 3	\$10,000.00	\$9,254.28	\$7,592.19
Year 4	\$10,000.00	\$9,531.91	\$8,351.41
Year 5	\$10,000.00	\$9,817.87	\$9,186.55
Year 6	\$10,000.00	\$10,112.41	\$10,105.21
Year 7	\$10,000.00	\$10,415.78	\$11,115.73
Year 8	\$10,000.00	\$10,728.25	\$12,227.30
Year 9	\$10,000.00	\$11,050.10	\$13,450.03
Year 10	\$10,000.00	\$11,381.60	\$14,795.04
TOTAL	\$100,000.00	\$100,000.00	\$100,000.00

This parameter is used to develop a funding plan only; it does not mean that the reserve contributions must be raised each year. There are far more significant factors that will contribute to a total reserve contribution increase or decrease from year to year than this parameter.

One of the major benefits of using this calculation method is that for any single component (or group of components), the accumulated balance and reserve funding can be precisely calculated. For example, using this calculation method, the reserve analysis can indicate the exact amount of current reserve funds "in the bank" for the roofs and the amount of money being funded towards the roofs each month. This information is displayed on the Management / Accounting Summary and Charts as well as elsewhere within the report.

The component calculation method is typically used for well-funded associations (greater that 65% funded) with a goal/ objective of full funding.

#### Cash Flow Calculation Method

This calculation method develops a funding plan based on current reserve funds and projected expenditures during a specific timeframe (typically 30 years). This funding method structures a funding plan that enables the association to pay for all reserve expenditures as they come due, but is not necessarily concerned with the ideal level of reserves through time.

This calculation method tests reserve contributions against reserve expenditures through time to determine the minimum contribution necessary (baseline Funding) or some other defined goal/objective (full funding, threshold funding or statutory funding).

Unlike the component calculation method, this calculation method cannot precisely calculate the reserve funding for any single component (or group of components). In order to work-around this issue to provide this bookkeeping information, a formula has been applied to component method results to calculate a reasonable breakdown. This information is displayed on the Management / Accounting Summary and Charts as well as elsewhere within the report.

The cash flow calculation method is typically used for under-funded associations (less than 65% funded) with a goal/ objective of full funding, threshold funding, baseline funding or statutory funding.

## ♦ ♦ ♦ READING THE RESERVE ANALYSIS ♦ ♦ ♦ ♦

In some cases, the reserve analysis may be a lengthy document of one hundred pages or more. A complete and thorough review of the reserve analysis is always a good idea. However, if time is limited, it is suggested that a thorough review of the summary pages be made. If a "red flag" is raised in this review, the reader should then check the detail information, of the component in question, for all relevant information. In this section, a description of most of the summary or report sections is provided along with comments regarding what to look for and how to use each section.

#### **Executive Summary**

Provides general information about the client, global parameters used in the calculation of the reserve analysis as well as the core results of the reserve analysis.



#### Calculation of percent funded

Summary displays all reserve components, shown here in "category" order. Provides the remaining life, useful life, current cost and the fully funded balance at the beginning of the fiscal year for which the reserve analysis was prepared.



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#### Management / Accounting Summary and Charts

Summary displays all reserve components, shown here in "category" order. Provides the assigned reserve funds at the beginning of the fiscal year for which the reserve analysis was prepared along with the monthly member contribution, interest contribution and total contribution for each component and category. Pie charts show graphically how the total reserve fund is distributed amongst the reserve component categories and how each category is funded on a monthly basis.



#### Projections and Charts

Summary displays projections of beginning reserve balance, member contribution, interest contribution, expenditures and ending reserve balance for each year of the projection period (shown here for 30 years). The two columns on the right-hand side provide the fully funded ending balance and the percent funded for each year. Charts show the same information in an easy-to-understand graphic format.



#### **Component Detail**

Summary provides detailed information about each reserve component. These pages display all information about each reserve component as well as comments from site observations and historical information regarding replacement or other maintenance.



### 

#### Annual Contribution Increase Parameter

The rate used in the calculation of the funding plan. This rate is used on an annual compounding basis. This rate represents, in theory, the rate the association expects to increase contributions each year.

In most cases, this rate should match the inflation parameter. Matching the annual contribution increase parameter to the inflation parameter indicates, in theory, that member contributions should increase at the same rate as the cost of living (inflation parameter). Due to the "time value of money," this creates the most equitable distribution of member contributions through time.

This parameter is used to develop a funding plan only; it does not mean that the reserve contributions must be raised each year. There are far more significant factors that will contribute to a total reserve contribution increase or decrease from year to year than this parameter. See the description of "reserve funding calculation methods" in this preface for more detail on this parameter.

#### Anticipated Reserve Balance (or Reserve Funds)

The amount of money, as of a certain point in time, held by the association to be used for the repair or replacement of reserve components. This figure is "anticipated" because it is calculated based on the most current financial information available as of the analysis date, which is almost always prior to the fiscal year beginning date for which the reserve analysis is prepared.

#### Assigned Funds (and "Fixed" Assigned Funds)

The amount of money, as of the fiscal year beginning date for which the reserve analysis is prepared, that a reserve component has been assigned.

The assigned funds are considered "fixed" when the normal calculation process is bypassed and a specific amount of money is assigned to a reserve component. For example, if the normal calculation process assigns \$10,000 to the roofs, but the association would like to show \$20,000 assigned to roofs, "fixed" funds of \$20,000 can be assigned.

#### **Cash Flow Calculation Method**

Reserve funding calculation method developed based on total annual expenditures. A more detailed description of the actual calculation process is included in the "reserve funding calculation methods" section of the preface.

#### **Component Calculation Method**

Reserve funding calculation method developed based on each individual component. A more detailed description of the actual calculation process is included in the "reserve funding calculation methods" section of the preface.

#### **Contingency Parameter**

The rate used as a built-in buffer in the calculation of the funding plan. This rate will assign a percentage of the reserve funds, as of the fiscal year beginning, as contingency funds and will also determine the level of funding toward the contingency each month.

#### Current Replacement Cost

The amount of money, as of the fiscal year beginning date for which the reserve analysis is prepared, that a reserve component is expected to cost to replace.

#### Fiscal Year

Indicates the budget year for the association for which the reserve analysis was prepared. The fiscal year beginning (FYB) is the first day of the budget year; the fiscal year end (FYE) is the last day of the budget year.

#### Fully Funded Reserve Balance (or Ideal Reserves)

The amount of money that should theoretically have accumulated in the reserve fund as of a certain point in time. Fully funded reserves are calculated for each reserve component based on the current replacement cost, age and useful life:

Fully Funded Reserves =  $\frac{Age}{Useful Life}$  X Current Replacement Cost

The fully funded reserve balance is the sum of the fully funded reserves for each reserve component.

An association that has accumulated the fully funded reserve balance does not have all of the funds necessary to replace all of its reserve components immediately; it has the proportionately appropriate reserve funds for the reserve components it maintains, based on each component's current replacement cost, age and useful life.

#### Future Replacement Cost

The amount of money, as of the fiscal year during which replacement of a reserve component is scheduled, that a reserve component is expected to cost to replace. This cost is calculated using the current replacement cost compounded annually by the inflation parameter.

#### **Global Parameters**

The financial parameters used to calculate the reserve analysis. See also "inflation parameter," "annual contribution increase parameter," "investment rate parameter" and "taxes on investments parameter."

#### Inflation Parameter

The rate used in the calculation of future costs for reserve components. This rate is used on an annual compounding basis. This rate represents the rate the association expects to the cost of goods and services relating to their reserve components to increase each year.

#### Interest Contribution

The amount of money contributed to the reserve fund by the interest earned on the reserve fund and member contributions.

#### Investment Rate Parameter

The gross rate used in the calculation of interest contribution (interest earned) from the reserve balance and member contributions. This rate (net of the taxes on investments parameter) is used on a monthly compounding basis. This parameter represents the weighted average interest rate the association expects to earn on their reserve fund investments.

#### Membership Contribution

The amount of money contributed to the reserve fund by the association's membership.

#### Monthly Contribution (and "Fixed" Monthly Contribution)

The amount of money, for the fiscal year which the reserve analysis is prepared, that a reserve component will be funded.

The monthly contribution is considered "fixed" when the normal calculation process is bypassed and a specific amount of money is funded to a reserve component. For example, if the normal calculation process funds \$1,000 to the roofs each month, but the association would like to show \$500 funded to roofs each month, a "fixed" contribution of \$500 can be assigned.

#### Number of Units (or other assessment basis)

Indicates the number of units for which the reserve analysis was prepared. In "phased" developments (see phasing), this number represents the number of units, and corresponding common area components, that existed as of a certain point in time.

For some associations, assessments and reserve contributions are based on a unit of measure other than the number of units. Examples include time-interval weeks for timeshare resorts or lot acreage for commercial/industrial developments.

#### **One-Time Replacement**

Used for components that will be budgeted for only once.

#### Percent Funded

A measure, expressed as a percentage, of the association's reserve fund "health" as of a certain point in time. This number is the ratio of the anticipated reserve fund balance to the fully funded reserve balance:

Percent Funded = <u>Anticipated Reserve Fund Balance</u> Fully Funded Reserve Balance

An association that is 100% funded does not have all of the reserve funds necessary to replace all of its reserve components immediately; it has the proportionately appropriate reserve funds for the reserve components it maintains, based on each component's current replacement cost, age and useful life.

#### Percentage of Replacement

The percentage of the reserve component that is expected to be replaced.

For most reserve components, this percentage should be 100%. In some cases, this percentage may be more or less than 100%. For example, fencing which is shared with a neighboring community may be set at 50%.

#### **Phasing**

Indicates the number of phases for which the reserve analysis was prepared and the total number of phases expected at build-out (i.e. Phase 4 of 7). In phased developments, the first number represents the number of phases, and corresponding common area components, that existed as of a certain point in time. The second number represents the number of phases that are expected to exist at build-out.

#### Placed-In-Service Date

The date (month and year) that the reserve component was originally put into service or last replaced.

#### Remaining Life

The length of time, in years, until a reserve component is scheduled to be replaced.

#### Remaining Life Adjustment

The length of time, in years, that a reserve component is expected to last in excess (or deficiency) of its useful life for the current cycle of replacement.

If the current cycle of replacement for a reserve component is expected to be greater than or less than the "normal" life expectancy, the reserve component's life should be adjusted using a remaining life adjustment.

For example, if wood trim is painted normally on a 4 year cycle, the useful life should be 4 years. However, when it comes time to paint the wood trim and it is determined that it can be deferred for an additional year, the useful life should remain at 4 years and a remaining life adjustment of +1 year should be used.

#### Replacement Year

The fiscal year that a reserve component is scheduled to be replaced.

#### Reserve Components

Line items included in the reserve analysis.

#### Taxes on Investments Parameter

The rate used to offset the investment rate parameter in the calculation of the interest contribution. This parameter represents the marginal tax rate the association expects to pay on interest earned by the reserve funds and member contributions.

#### **Total Contribution**

The sum of the membership contribution and interest contribution.

#### <u>Useful Life</u>

The length of time, in years, that a reserve component is expected to last each time it is replaced. See also "remaining life adjustment."

### ◆ ◆ ◆ ◆ LIMITATIONS OF RESERVE ANALYSIS ◆ ◆ ◆ ◆

This reserve analysis is intended as a tool for the association's Board of Directors to be used in evaluating the association's current physical and financial condition with regard to reserve components. The results of this reserve analysis represent the independent opinion of the preparer. There is no implied warranty or guarantee of this work product.

For the purposes of this reserve analysis, it has been assumed that all components have been installed properly, no construction defects exist and all components are operational. Additionally, it has been assumed that all components will be maintained properly in the future.

The representations set forth in this reserve analysis are based on the best information and estimates of the preparer as of the date of this analysis. These estimates are subject to change. This reserve analysis includes estimates are projections of future events based on information currently available and are not necessarily indicative of the actual future outcome. The longer the time period between the estimate and the estimated event, the more likely the possibility or error and/or discrepancy. For example, some assumptions inevitably will not materialize and unanticipated events and circumstances many occur subsequent to the preparation of this reserve analysis. Therefore, the actual replacement costs and remaining lives may vary from this reserve analysis and the variation may be significant. Additionally, inflation and other economic events may impact this reserve analysis, particularly over an extended period of time and those events could have a significant and negative impact on the accuracy of this reserve analysis and, further, the funds available to meet the association's obligation for repair, replacement or other maintenance of major components during their estimated useful life. Furthermore, the occurrence of vandalism, severe weather conditions, earthquakes, floods, acts of nature or other unforeseen events cannot be predicted and/or accounted for and excluded when assessing life expectancy, repair and/or replacement costs of the components.

## **Executive Summary** Directed Cash Flow Calculation Method

#### **Client Information:**

Account Number	1103
Version Number	1
Analysis Date	08/09/2021
Fiscal Year	1/1/2022 to 12/31/2022
Number of Lots	144
Phasing	1 of 1

#### **Global Parameters:**

Inflation Rate	2.50 %
Annual Contribution Increase	2.50 %
Investment Rate	1.01 %
Taxes on Investments	18.00 %
Contingency	3.00 %

#### **Community Profile:**

The community consists of 144 lots with dock, boat launch, 2 gazebos, waterfall, and private streets.

Unless otherwise indicated, we have used the date 6/2007, as the basis for aging of all original components. Level of Study: Full with Site Inspection Calculation Method Used: Cash Flow Funding Strategy: Funding strategy can be found on the Annual Projections page. Site Inspection Date: 3/13/21

#### Adequacy of Reserves as of January 1, 2022:

Anticipated Reserve Balance	\$145,692.00
Fully Funded Reserve Balance	\$641,480.61
Percent Funded	22.71%

			Per Lot
Recommended Funding for the 2022 Fiscal Year:	Annual	Monthly	Per Month
Member Contribution	\$71,500	\$5,958.33	\$41.38
Interest Contribution	\$1,353	\$112.71	\$0.78
Total Contribution	\$72,853	\$6,071.04	\$42.16

## **Preparer's Disclosure Statement**

Alexander Liu was awarded the Reserve Specialist (RS) designation from Community Associations Institute (CAI). The RS designation was developed by CAI for professional reserve analysts who wish to confirm to their peers and/or clients that they have demonstrated a basic level of competency within the industry. The RS designation is awarded to reserve analysts who are dedicated to the highest standards of professionalism and reserve analysis preparation.

Consultant certifies that:

1) Consultant has no other involvement with association which could result in actual or perceived conflicts of interest.

2) Component inventories were developed by actual field inventory, representative sampling, take-offs of scaled plans, provided by the association's previous reserve analysis prepared by another firm or provided by the association.

Component conditional assessments were developed by actual field observation and representative sampling.

3) Financial assumptions used in this analysis are listed on the Executive Summary and further explained in the Preface of this report.

4) Consultant is a Reserve Specialist (RS) designee.

5) There are no material issues known to consultant at this time which would cause a distortion of the association's situation.

6) The scope of Reserve Professionals' service does not include forensic, invasive or destructive testing or analysis of an engineering or architectural nature. Reserve Component condition assessments are based on visual observation. The Reserve Professionals reserve study specifically is neither a Building Inspection nor an engineering or architectural evaluation of the suitability, quality or integrity of the design, construction or manufacture quality of the facilities, infrastructure and other components comprising Client's project.

7) Since a reserve analysis includes a visual observation only it is impossible to accurately identify, measure or quantify, estimate useful life or cost for any assets that are partially or fully concealed or buried. Although such items may be included in the reserve analysis, Reserve Professionals is not responsible for any discrepancies in material quantities, unit costs, or total costs that may exist between the study and actual conditions or responsible for an omission of such item. Assets include, but are not limited to irrigation, sprinkler, water, sewer, and storm piping, electrical wiring and equipment, building water damage, bodies of water, site and building drainage, tree removal, landscaping projects.

8) We make every attempt to notify the Client when we notice a potential safety issue, however a reserve study is not intended to identify safety issues. We take no responsibility for identifying or communicating any safety issues including, but not limited to fall hazards of people or structures, structural concerns, electrical shock.

## **Calculation of Percent Funded**

Sorted by Category

	Remaining Life	Useful Life	Current Cost	Fully Funded Balance
010 Site				
Park - Furniture	3	18	\$12,000.00	\$10,000.00
Site Drainage	5	20	\$13,000.00	\$9,750.00
Stone - Clean and Mortar Repair	5	20	\$3,804.00	\$2,853.00
Streets - Asphalt Overlay 1	14	24	\$226,634.87	\$94,431.20
Streets - Asphalt Overlay 2	15	24	\$251,044.31	\$94,141.62
Streets - Asphalt Overlay 3	17	24	\$141,849.05	\$41,372.64
Streets - Asphalt, Repair 1	2	12	\$32,424.52	\$27,020.44
Streets - Asphalt, Repair 2	3	12	\$39,495.00	\$29,621.25
Streets - Asphalt, Repair 3	5	12	\$39,274.53	\$22,910.14
Streets - Asphalt, Road Reconstruction	5	12	\$327,287.72	\$190,917.83
Streets - Inspections	1	2	\$15,000.00	\$7,500.00
Waterfall Liner	5	20	\$10,000.00	\$7,500.00
Sub Total	1-17	2-24	\$1,111,813.99	\$538,018.11
040 Fencing & Access Control				
Access Control - Gate Operators		12	\$13,124,91	\$13.124.91
Access Control - Gates	20	35	\$11.500.00	\$4.928.57
Fencing - Wood	7	22	\$17.319.00	\$11.808.41
Painting - Fencing	2	17	\$3,754.40	\$3,312.71
Sub Total	0-20	12-35	\$45,698.31	\$33,174.59
100 Miscellaneous Structures				
Dock - Structure Replacement	21	36	\$44,590.00	\$18,579.17
Docks - Floating, Floor Board Replacement	8	23	\$11,206.00	\$7,308.26
Docks - Gangway	10	25	\$3,500.00	\$2,100.00
Picnic Shelters	10	25	\$31,480.00	\$18,888.00
Sub Total	8-21	23-36	\$90,776.00	\$46,875.43
110 Miscellaneous				
EXCLUDED	n.a.	n.a.	\$0.00	\$0.00
Pumps - Centrifugal	0	15	\$2,600.00	\$2,600.00
Signage - Metal, Monument	7	22	\$1,200.00	\$818.18
Signage - Streets	10	25	\$2,184.00	\$1,310.40
Sub Total	0-10	15-25	\$5,984.00	\$4,728.58

## **Calculation of Percent Funded**

## Sorted by Category

	Remaining Life	Useful Life	Current Cost	Fully Funded Balance
Contingency	n.a.	n.a.	n.a.	\$18,683.90
Total Anticipated Reserve Balance Percent Funded	0-21	2-36	\$1,254,272.30	\$641,480.61 \$145,692.00 22.71%

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## Management / Accounting Summary Directed Cash Flow Calculation Method; Sorted by Category

	Balance at Fiscal Year Beginning	Monthly Member Contribution	Monthly Interest Contribution	Total Monthly Contribution
010 Site				
Park - Furniture	\$10,000.00	\$33.10	\$5.84	\$38.93
Site Drainage	\$9,750.00	\$32.70	\$5.69	\$38.39
Stone - Clean and Mortar Repair	\$2,853.00	\$9.57	\$1.67	\$11.24
Streets - Asphalt Overlay 1	\$0.00	\$707.73	\$4.72	\$712.45
Streets - Asphalt Overlay 2	\$0.00	\$737.48	\$4.91	\$742.40
Streets - Asphalt Overlay 3	\$0.00	\$373.50	\$2.49	\$375.99
Streets - Asphalt, Repair 1	\$27,020.44	\$124.61	\$16.00	\$140.61
Streets - Asphalt, Repair 2	\$29,621.25	\$150.74	\$17.64	\$168.38
Streets - Asphalt, Repair 3	\$22,910.14	\$147.84	\$13.86	\$161.70
Streets - Asphalt, Road Reconstruction	\$5,256.11	\$2,623.69	\$20.44	\$2,644.13
Streets - Inspections	\$7,500.00	\$300.17	\$6.21	\$306.38
Waterfall Liner	\$7,500.00	\$25.15	\$4.38	\$29.53
Sub Total	\$122,410.93	\$5,266.26	\$103.85	\$5,370.10
040 Fencing & Access Control	A LA			
Access Control - Gate Operators	\$13,124.91	\$47.07	\$0.32	\$47.38
Access Control - Gates	\$0.00	\$26.35	\$0.18	\$26.53
Fencing - Wood	\$0.00	\$102.30	\$0.68	\$102.98
Painting - Fencing	\$3,312.71	\$10.89	\$1.93	\$12.82
Sub Total	\$16,437.61	\$186.60	\$3.11	\$189.71
100 Miscellaneous Structures				
Dock - Structure Replacement	\$0.00	\$98.05	\$0.66	\$98.71
Docks - Floating, Floor Board Replacement	\$0.00	\$58.38	\$0.39	\$58.77
Docks - Gangway	\$0.00	\$14.82	\$0.10	\$14.92
Picnic Shelters	\$0.00	\$133.33	\$0.89	\$134.22
Sub Total	\$0.00	\$304.58	\$2.03	\$306.62
110 Miscellaneous				
EXCLUDED	\$0.00	\$0.00	\$0.00	\$0.00
Pumps - Centrifugal	\$2,600.00	\$11.01	\$0.07	\$11.08
Signage - Metal, Monument	\$0.00	\$7.09	\$0.05	\$7.14
Signage - Streets	\$0.00	\$9.25	\$0.06	\$9. <u>3</u> 1
Sub Total	\$2,600.00	\$27.35	\$0.19	\$27.54

Management / Accounting Summary Directed Cash Flow Calculation Method; Sorted by Category

	Balance at Fiscal Year Beginning	Monthly Member Contribution	Monthly Interest Contribution	Total Monthly Contribution
Contingency	\$4,243.46	\$173.54	\$3.54	\$177.08
Total	\$145,692.00	\$5,958.33	\$112.71	\$6,071.04

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Management / Accounting Charts Directed Cash Flow Calculation Method; Sorted by Category



Management / Accounting Charts Directed Cash Flow Calculation Method; Sorted by Category



# Annual Expenditure Detail

Sorted by Description

2022 Fiscal Year	
Access Control - Gate Operators	\$13,124.91
Pumps - Centrifugal	\$2,600.00
Sub Total	\$15,724.91
2023 Fiscal Year	
Streets - Inspections	\$15,375.00
Sub Total	\$15,375.00
2024 Fiscal Year	
Painting - Fencing	\$3,944.47
Streets - Asphalt, Repair 1	\$34,066.01
Sub Total	\$38,010.48
2025 Fiscal Year	
Park - Furniture	\$12,922.69
Streets - Asphalt, Repair 2	\$42,531.79
Sub Total	\$55,454.48
2027 Fiscal Year	
Site Drainage	\$14,708.31
Stone - Clean and Mortar Repair	\$4,303.88
Streets - Asphalt, Repair 3	\$44,435.52
Streets - Asphalt, Road Reconstruction	\$370,296.01
Waterfall Liner	\$11,314.08
Sub Total	\$445,057.80
2029 Fiscal Year	
Fencing - Wood	\$20,586.85
Signage - Metal, Monument	\$1,426.42
Sub Total	\$22,013.27
2030 Fiscal Year	
Docks - Floating, Floor Board Replacement	\$13,653.42
Sub Total	\$13,653.42
2031 Fiscal Year	
Painting - Fencing	\$4,688.73
Sub Total	\$4,688.73
2032 Fiscal Year	
Docks - Gangway	\$4,480.30

# Annual Expenditure Detail

Sorted by Description

Picnic Shelters	\$40,297.06
Pumps - Centrifugal	\$3,328.22
Signage - Streets	\$2,795.70
Sub Total	\$50,901.28
2034 Fiscal Year	
Access Control - Gate Operators	\$17,651.54
Sub Total	\$17,651.54
2035 Fiscal Year	
Site Drainage	\$17,920.64
Sub Total	\$17,920.64
2036 Fiscal Year	
Streets - Asphalt Overlay 1	\$320,229.14
Streets - Asphalt, Repair 1	\$45,815.00
Sub Total	\$366,044.14
2037 Fiscal Year	
Streets - Asphalt Overlay 2	\$363,587.01
Streets - Asphalt, Repair 2	\$57,200.53
Sub Total	\$420,787.54
2038 Fiscal Year	
Painting - Fencing	\$5,573.43
Sub Total	\$5,573.43
2039 Fiscal Year	
Streets - Asphalt Overlay 3	\$215,840.10
Streets - Asphalt, Repair 3	\$59,760.84
Sub Total	\$275,600.94
2042 Fiscal Year	
Access Control - Gates	\$18,844.09
Pumps - Centrifugal	\$4,260.40
Sub Total	\$23,104.49
2043 Fiscal Year	
Dock - Structure Replacement	\$74,892.55
Park - Furniture	\$20,154.98
Site Drainage	\$21,834.56

# Annual Expenditure Detail

Sorted by Description

Sub Total	\$116,882.10
2045 Fiscal Year	
Painting - Fencing	\$6,625.05
Sub Total	\$6,625.05
2046 Fiscal Year	
Access Control - Gate Operators	\$23,739.36
Sub Total	\$23,739.36
2047 Fiscal Year	
Stone - Clean and Mortar Repair	\$7,052.40
Waterfall Liner	\$18,539.44
Sub Total	\$25,591.84
2048 Fiscal Year	
Docks - Floating, Floor Board Replacement	\$21,294.68
Streets - Asphalt, Repair 1	\$61,616.08
Sub Total	\$82,910.76
2049 Fiscal Year	
Streets - Asphalt, Repair 2	\$76,928.35
Sub Total	\$76,928.35
2051 Fiscal Year	
Fencing - Wood	\$35,441.73
Signage - Metal, Monument	\$2,455.69
Site Drainage	\$26,603.30
Streets - Asphalt, Repair 3	\$80,371.68
Sub Total	\$144,872.39

## **Projections** Directed Cash Flow Calculation Method

Fiscal Year	Beginning Balance	Member Contribution	Interest Contribution	Expenditures	Ending Balance	Fully Funded Ending Balance	Percent Funded
2022	\$145,692	\$71,500	\$1,353	\$15,725	\$202,820	\$723,072	28%
2023	\$202,820	\$73,288	\$1,837	\$15,375	\$262,569	\$801,011	33%
2024	\$262,569	\$75,120	\$2,153	\$38,010	\$301,831	\$859,253	35%
2025	\$301,831	\$76,998	\$2,341	\$55,454	\$325,716	\$902,494	36%
2026	\$325,716	\$78,923	\$3,008	<b>\$</b> 0	\$407,646	\$1,007,369	40%
2027	\$407,646	\$80,896	(\$3)	\$445,058	\$43,481	\$615,640	7%
2028	\$43,481	\$82,918	\$677	\$0	\$127,076	\$685,312	19%
2029	\$127,076	\$84,991	\$1,197	\$22,013	\$191,251	\$734,842	26%
2030	\$191,251	\$87,116	\$1,808	\$13,653	\$266,521	\$796,002	33%
2031	\$266,521	\$89,294	\$2,516	\$4,689	\$353,642	\$869,585	41%
2032	\$353,642	\$91,526	\$2,865	\$50,901	\$397,132	\$897,684	44%
2033	\$397,132	\$93,814	\$3,658	\$0	\$494,605	\$981,727	50%
2034	\$494,605	\$96,160	\$4,331	\$17,652	\$577,444	\$1,050,776	55%
2035	\$577,444	\$98,564	\$5,027	\$17,921	\$663,113	\$1,122,846	59%
2036	\$663,113	\$101,028	\$2,854	\$366,044	\$400,951	\$830,803	48%
2037	\$400,951	\$103,553	\$229	\$420,788	\$83,946	\$475,323	18%
2038	\$83,946	\$106,142	\$1,055	\$5,573	\$185,570	\$551,018	34%
2039	\$185,570	\$108,796	(\$335)	\$275,601	\$18,430	\$345,267	5%
2040	\$18,430	\$111,516	\$577	\$0	\$130,523	\$427,123	31%
2041	\$130,523	\$114,303	\$1,520	\$0	\$246,347	\$512,856	48%
2042	\$246,347	\$117,161	<b>\$2,30</b> 2	\$23,104	\$342,705	\$578,216	59%
2043	\$342,705	\$120,090	\$2,334	\$116,882	\$348,247	\$548,128	64%
2044	\$348,247	\$123,092	\$3,363	\$0	\$474,703	\$642,658	74%
2045	\$474,703	\$126,170	\$4,371	\$6,625	\$598,619	\$734,577	81%
2046	\$598,619	\$129,324	\$5,271	\$23,739	\$709,475	\$812,796	87%
2047	\$709,475	\$132,557	\$6,190	\$25,592	\$822,630	\$893,138	92%
2048	\$822,630	\$135,871	\$6,667	\$82,911	\$882,257	\$917,151	96%
2049	\$882,257	\$139,268	\$7,225	\$76,928	\$951,821	\$950,310	100%
2050	\$951,821	\$142,749	\$8,456	\$0	\$1,103,026	\$1,067,801	103%
2051	\$1,103,026	\$146,318	\$8,522	\$144,872	\$1,112,994	\$1,037,624	107%

NOTE: In some cases, the projected Ending Balance may exceed the Fully Funded Ending Balance in years following high Expenditures. This is a result of the provision for contingency in this analysis, which in these projections is never expended. The contingency is continually adjusted according to need and any excess is redistributed among all components included.

**Projection Charts** Directed Cash Flow Calculation Method





**Projection Charts** Directed Cash Flow Calculation Method





**Component Detail** 

## Directed Cashflow Calculation Method; Sorted by Category

Park - Furniture			
Category	010 Site	Quantity	1 total
		Unit Cost	\$12,000.000
		% of Replacement	100.00%
		Current Cost	\$12,000.00
Placed In Service	01/07	Future Cost	\$12,922.69
Useful Life	18		
		Assigned Reserves at FYB	\$10,000.00
Remaining Life	3	Monthly Member Contribution	\$33.10
Replacement Year	2025	Monthly Interest Contribution	\$5.84
		Total Monthly Contribution	\$38.93

#### Comments:

We noticed several picnic tables that appeared abandoned in the woods including 1 by the dock. We are including only the tables at gazebos. The site furniture are located in areas that are unlikely to be used. If funding is tight this item should be removed.

7	6' benches	@	\$900.00	=	\$6,300.00
5	6' portable picnic tables	@	\$740.00	=	\$3,700.00
3	abandoned 6' portable picnic tables	@	\$0.00	=	\$0.00
5	charcoal pedestal BBQ's	@	\$400.00	=	\$2,000.00
	$\langle \rangle$		TOTAL	=	\$12,000.00

**Component Detail** 

## Directed Cashflow Calculation Method; Sorted by Category

Site Drainage			
Category	010 Site	Quantity	1 allowance
		Unit Cost	\$13,000.000
		% of Replacement	100.00%
		Current Cost	\$13,000.00
Placed In Service	01/07	Future Cost	\$14,708.31
Useful Life	8		
Adjustment	+12	Assigned Reserves at FYB	\$9,750.00
Remaining Life	5	Monthly Member Contribution	\$32.70
Replacement Year	2027	Monthly Interest Contribution	\$5.69
		Total Monthly Contribution	\$38.39

#### Comments:

The entire community utilizes surface drainage with ditches that run parallel to the roads. Rip rap lines some of the ditches but not all. The funds included should be used to cover the cost for periodically removing debris and silt that will fill in the ditches and for additional rip rap stone where necessary. We did not notice any culverts or locations where culverts would be necessary, but they aren't necessarily apparent if no railings along the road are present.

At each driveway there is a galvanized corrugated steel culvert, which will eventually will need to be replaced or relined. However, we would expect this to be the responsibility of the homeowner. If this is not the case, please let us know.

**Component Detail** 

## Directed Cashflow Calculation Method; Sorted by Category

Stone - Clean an	d Mortar Repair		
Category	010 Site	Quantity	1,268 sq. ft.
		Unit Cost	\$3.000
		% of Replacement	100.00%
		Current Cost	\$3,804.00
Placed In Service	01/07	Future Cost	\$4,303.88
Useful Life	20		
		Assigned Reserves at FYB	\$2,853.00
Remaining Life	5	Monthly Member Contribution	\$9.57
Replacement Year	2027	Monthly Interest Contribution	\$1.67
		Total Monthly Contribution	\$11.24

#### Comments:

Mortar and cultured stone show NO signs of premature decay. There is little evidence of efflorescence, a chalky substance that may appear on the stone or grout. Efflorescence is salt leaching out due to moisture in the mortar or stone. Efflorescence should be cleaned promptly; waiting for more efflorescence to build up will make cleaning more difficult. Once gone it may reappear and can occasionally be persistent. Periodically clean the walls using manufacturer's directions and recommended cleaner to remove any mold or algae and debris.

monument and column caps, authentic	528	sq. ft.
small columns throughout	760	sq. ft.
entrance gate, cultured	508	sq. ft.
	1,796	sq. ft.

This asset is partially or fully, buried or concealed. Since a reserve analysis includes a visual observation only it is impossible to accurately identify, measure or quantify, estimated useful life or cost for any assets that are partially or fully concealed or buried. Although these items may be included in the reserve analysis, Reserve Professionals is not responsible for any discrepancies that may exist between the study and actual conditions or responsible for an omission of such item.

Cultured stone brands are made differently, so maintenance should be brand specific. Power washing, wire brushes, bleach, and acidic cleaners should be avoided. The stone is brittle and only the surface is colored, so any damage to the surface will stand out. There are repair/color kits that can be purchased from the manufacturer in case of such an event.

There have been a number of cases where improper installation of stone veneer has caused water damage to the home. It is beyond the scope of a reserve study to examine or investigate the installation of cultured stone or account for any future replacement, but it is important to simply be aware that the potential for future problems may exist.

Manufactured stone is a lightweight, man-made concrete masonry product that is typically cast into random sizes in a variety of colors and finishes meant to mimic the look of quarried rock.

Similar to what has become a common problem with synthetic stucco, improper installation of manufactured stone veneer on exterior walls has led to serious concern about water damage. Improper flashing and drainage details behind the veneer are often the culprit, just like with synthetic stucco, but the damage with manufactured stone can often be more severe. This is because, unlike synthetic stucco, manufactured stone is not installed with an air space between the

## Eagle Pointe Shores Homeowners Association, inc. Component Detail

## Directed Cashflow Calculation Method; Sorted by Category

cladding and the framed wall. When the veneer is saturated with water during a rainstorm, it holds rainwater right up against the framed wall. With little drainage or drying space, housewrap (or building paper) and flashing have a harder time diverting the moisture. If care is not taken during installation to cover every detail properly, serious water damage may result under relatively normal weather and seasonal conditions.

Manufactured stone veneers share many similar concerns with synthetic stucco. Proper seams at windows and doors are important, and building paper or housewrap must be lapped correctly in order to keep water diverted from the framed wall. Window pan flashings can be helpful if correctly installed. Bottom terminations of manufactured stone veneer are best equipped with weep screeds of some kind in order to avoid the pooling of water at the lowest points, which can cause those areas to stay continuously wet. The tops of windows and door openings are also spots that will benefit from weep screeds.

Another issue can arise when manufactured stone is paired up with a different material on the same wall. Synthetic stucco, for example, is often installed on part of a wall, with the rest of the wall covered with manufactured stone. Water will penetrate to the wood-frame wall and cause damage if the seam between the two claddings is not properly managed during installation.

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**Component Detail** 

## Directed Cashflow Calculation Method; Sorted by Category

Streets - Asphalt	: Overlay 1		
Category	010 Site	Quantity	14,707 sq. yds.
		Unit Cost	\$15.410
		% of Replacement	100.00%
		Current Cost	\$226,634.87
Placed In Service	01/12	Future Cost	\$320,229.14
Useful Life	24		
		Assigned Reserves at FYB	\$0.00
Remaining Life	14	Monthly Member Contribution	\$707.73
Replacement Year	2036	Monthly Interest Contribution	\$4.72
		Total Monthly Contribution	\$712.45

#### Comments:

Surface condition appears to be in good condition, however the roads are quite new, and so the surface condition is not a good indicator of construction quality. Board is in communication with Virginia DOT about annexing the existing roads within the community. This study assumes that VDOT will not be doing so. It is our understanding that the board has hired an engineer to perform a street study to get a better determination of the roads' condition, but was not available at the time this study was generated.

As time continues, the assumptions of cost and usefel life may need to be adjusted. Dates of completion provided by client. Overlay life has been extended due to the financial condition of the client.

Eagle Pointe Shores	6,942	sq. yds.
Garrison Ridge	7,290	sq. yds.
Jones Pointe	475	sq. yds.
	14,707	sq. yds.

Most asphalt surfaces can be expected to last approximately 20 to 25 years before it will become necessary for an overlay to be applied. There is a separate component listed- Streets - Asphalt Repairs which is scheduled to occur at the halfway mark of the overlay life and in conjunction with the overlay. Please review both components in conjunction.

Deflection testing should be conducted by an independent consultant near the end of the estimated useful life to determine the condition of the asphalt and to determine if major rehabilitation is required. In addition to deflection testing, a consultant should be able to provide specifications, and testing to confirm actual installation meets the specifications. As costs vary, a provision for this consulting has not been included in this cost estimate. Should the client request, this cost can be incorporated into this analysis.

If properly built, the road or parking lot deteriorates from the top down, which only requires the replacement of a thin layer of asphalt, or preferably the application of a thin wearing layer on top of the existing asphalt. The asphalt overlay not only provides a new paving surface for a fraction of the cost of rebuilding the entire roadway, but it is the only preventive maintenance technique that adds structural value while extending a pavement's service life. According to a 2008 study by the National Asphalt Pavement Association (NAPA), thin overlays were more cost-effective options over a roadway's expected service life than chip seal, slurry seal and micro-surfacing.

Repairs and milling should be performed first. Adjusting manhole and valve covers should be performed at the same time. After the road or parking lot has been swept mechanically, a tack coat will be applied. If not properly maintained, the nozzles that spray the tack coat can become clogged, resulting in a poor application. Loose asphalt will be trucked

**Component Detail** 

### Directed Cashflow Calculation Method; Sorted by Category

in. Trucks leaving the area will create asphalt tracks outside the work area. This can't be helped and will soon fade. The asphalt temperature should be between 270 and 325 degrees Fahrenheit and should be tested at the site. The distance from the plant and weather, including wind, humidity and temperature can significantly affect this temperature, and if the driver stops to pick up some food the asphalt may need to be rejected. The proper temperature ensures enough time for the loose asphalt to be compacted sufficiently. Insufficient compaction will cause the newly placed wearing layer to quickly fail. The ground and existing asphalt temperature can also cool the asphalt

It is important to remember that over the last few years, the petroleum market has become much more volatile and price for liquid asphalt have seen exceptional jumps in very short periods of time. A reserve study can account for historical inflation, but can not predict future oil prices.

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**Component Detail** 

### Directed Cashflow Calculation Method; Sorted by Category

Streets - Asphalt	Overlay 2		
Category	010 Site	Quantity	16,291 sq. yds.
		Unit Cost	\$15.410
		% of Replacement	100.00%
		Current Cost	\$251,044.31
Placed In Service	01/13	Future Cost	\$363,587.01
Useful Life	24		
		Assigned Reserves at FYB	\$0.00
Remaining Life	15	Monthly Member Contribution	\$737.48
Replacement Year	2037	Monthly Interest Contribution	\$4.91
		Total Monthly Contribution	\$742.40

#### Comments:

Surface condition appears to be in good condition, however the roads are quite new, and so the surface condition is not a good indicator of construction quality. Board is in communication with Virginia DOT about annexing the existing roads within the community. This study assumes that VDOT will not be doing so. It is our understanding that the board has hired an engineer to perform a street study to get a better determination of the roads' condition, but was not available at the time this study was generated.

As time continues, the assumptions of cost and usefel life may need to be adjusted. Dates of completion provided by client. Overlay life has been extended due to the financial condition of the client.

Robin Ridge Ct	4,562	sq. yds.
Greenberry Dr	7,642	sq. yds.
Overlook Ct	2,212	sq. yds.
Noahs Knoll	1,436	sq. yds.
Justin Vista	439	sq. yds.
	16,291	sq. yds.

Most asphalt surfaces can be expected to last approximately 20 to 25 years before it will become necessary for an overlay to be applied. There is a separate component listed- Streets - Asphalt Repairs which is scheduled to occur at the halfway mark of the overlay life and in conjunction with the overlay. Please review both components in conjunction.

Deflection testing should be conducted by an independent consultant near the end of the estimated useful life to determine the condition of the asphalt and to determine if major rehabilitation is required. In addition to deflection testing, a consultant should be able to provide specifications, and testing to confirm actual installation meets the specifications. As costs vary, a provision for this consulting has not been included in this cost estimate. Should the client request, this cost can be incorporated into this analysis.

If properly built, the road or parking lot deteriorates from the top down, which only requires the replacement of a thin layer of asphalt, or preferably the application of a thin wearing layer on top of the existing asphalt. The asphalt overlay not only provides a new paving surface for a fraction of the cost of rebuilding the entire roadway, but it is the only preventive maintenance technique that adds structural value while extending a pavement's service life. According to a 2008 study by the National Asphalt Pavement Association (NAPA), thin overlays were more cost-effective options over a roadway's expected service life than chip seal, slurry seal and micro-surfacing.

Repairs and milling should be performed first. Adjusting manhole and valve covers should be performed at the same

**Component Detail** 

### Directed Cashflow Calculation Method; Sorted by Category

time. After the road or parking lot has been swept mechanically, a tack coat will be applied. If not properly maintained, the nozzles that spray the tack coat can become clogged, resulting in a poor application. Loose asphalt will be trucked in. Trucks leaving the area will create asphalt tracks outside the work area. This can't be helped and will soon fade. The asphalt temperature should be between 270 and 325 degrees Fahrenheit and should be tested at the site. The distance from the plant and weather, including wind, humidity and temperature can significantly affect this temperature, and if the driver stops to pick up some food the asphalt may need to be rejected. The proper temperature ensures enough time for the loose asphalt to be compacted sufficiently. Insufficient compaction will cause the newly placed wearing layer to quickly fail. The ground and existing asphalt temperature can also cool the asphalt

It is important to remember that over the last few years, the petroleum market has become much more volatile and price for liquid asphalt have seen exceptional jumps in very short periods of time. A reserve study can account for historical inflation, but can not predict future oil prices.

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**Component Detail** 

### Directed Cashflow Calculation Method; Sorted by Category

Streets - Asphalt	Overlay 3		
Category	010 Site	Quantity	9,205 sq. yds.
		Unit Cost	\$15.410
		% of Replacement	100.00%
		Current Cost	\$141,849.05
Placed In Service	01/15	Future Cost	\$215,840.10
Useful Life	24		
		Assigned Reserves at FYB	\$0.00
Remaining Life	17	Monthly Member Contribution	\$373.50
Replacement Year	2039	Monthly Interest Contribution	\$2.49
		Total Monthly Contribution	\$375.99

#### Comments:

Surface condition appears to be in good condition, however the roads are quite new, and so the surface condition is not a good indicator of construction quality. Board is in communication with Virginia DOT about annexing the existing roads within the community. This study assumes that VDOT will not be doing so. It is our understanding that the board has hired an engineer to perform a street study to get a better determination of the roads' condition, but was not available at the time this study was generated.

As time continues, the assumptions of cost and usefel life may need to be adjusted. Dates of completion provided by client. Overlay life has been extended due to the financial condition of the client.

Siahs Glenn	3,306	sq. yds.
Dylan Ct	817	sq. yds.
Talon Ridge Ct	4,117	sq. yds.
Jons Ct	667	sq. yds.
	8,907	sq. yds.

Most asphalt surfaces can be expected to last approximately 20 to 25 years before it will become necessary for an overlay to be applied. There is a separate component listed- Streets - Asphalt Repairs which is scheduled to occur at the halfway mark of the overlay life and in conjunction with the overlay. Please review both components in conjunction.

Deflection testing should be conducted by an independent consultant near the end of the estimated useful life to determine the condition of the asphalt and to determine if major rehabilitation is required. In addition to deflection testing, a consultant should be able to provide specifications, and testing to confirm actual installation meets the specifications. As costs vary, a provision for this consulting has not been included in this cost estimate. Should the client request, this cost can be incorporated into this analysis.

If properly built, the road or parking lot deteriorates from the top down, which only requires the replacement of a thin layer of asphalt, or preferably the application of a thin wearing layer on top of the existing asphalt. The asphalt overlay not only provides a new paving surface for a fraction of the cost of rebuilding the entire roadway, but it is the only preventive maintenance technique that adds structural value while extending a pavement's service life. According to a 2008 study by the National Asphalt Pavement Association (NAPA), thin overlays were more cost-effective options over a roadway's expected service life than chip seal, slurry seal and micro-surfacing.

Repairs and milling should be performed first. Adjusting manhole and valve covers should be performed at the same time. After the road or parking lot has been swept mechanically, a tack coat will be applied. If not properly maintained,

**Component Detail** 

## Directed Cashflow Calculation Method; Sorted by Category

the nozzles that spray the tack coat can become clogged, resulting in a poor application. Loose asphalt will be trucked in. Trucks leaving the area will create asphalt tracks outside the work area. This can't be helped and will soon fade. The asphalt temperature should be between 270 and 325 degrees Fahrenheit and should be tested at the site. The distance from the plant and weather, including wind, humidity and temperature can significantly affect this temperature, and if the driver stops to pick up some food the asphalt may need to be rejected. The proper temperature ensures enough time for the loose asphalt to be compacted sufficiently. Insufficient compaction will cause the newly placed wearing layer to quickly fail. The ground and existing asphalt temperature can also cool the asphalt

It is important to remember that over the last few years, the petroleum market has become much more volatile and price for liquid asphalt have seen exceptional jumps in very short periods of time. A reserve study can account for historical inflation, but can not predict future oil prices.

Streets - Asphalt	t, Repair 1		
Category	010 Site	Quantity	14,707 sq. yds.
		Unit Cost	\$73.490
		% of Replacement	3.00%
		Current Cost	\$32,424.52
Placed In Service	01/12	Future Cost	\$34,066.01
Useful Life	12		
		Assigned Reserves at FYB	\$27,020.44
Remaining Life	2	Monthly Member Contribution	\$124.61
Replacement Year	2024	Monthly Interest Contribution	\$16.00
		Total Monthly Contribution	\$140.61

#### Comments:

Percentage of repairs will increase as the pavement ages. It is estimated that a percentage of the asphalt areas will require repair or replacement. The actual condition of the asphalt should be monitored through time and estimates should be adjusted accordingly.

We have budgeted for the asphalt to be repaired on the same cycle and in conjunction with the asphalt overlay. Overlay life has been extended due to the financial condition of the client.

Eagle Pointe Shores	6,942	sq. yds.
Garrison Ridge	7,290	sq. yds.
Jones Pointe	475	sq. yds.
	14,707	sq. yds.

## **Component Detail**

### Directed Cashflow Calculation Method; Sorted by Category

Streets - Asphalt, Repair 2			
Category	010 Site	Quantity	17,914 sq. yds.
		Unit Cost	\$73.490
		% of Replacement	3.00%
		Current Cost	\$39,495.00
Placed In Service	01/13	Future Cost	\$42,531.79
Useful Life	12		
		Assigned Reserves at FYB	\$29,621.25
Remaining Life	3	Monthly Member Contribution	\$150.74
Replacement Year	2025	Monthly Interest Contribution	\$17.64
		<b>Total Monthly Contribution</b>	\$168.38

#### Comments:

Percentage of repairs will increase as the pavement ages. It is estimated that a percentage of the asphalt areas will require repair or replacement. The actual condition of the asphalt should be monitored through time and estimates should be adjusted accordingly.

We have budgeted for the asphalt to be repaired on the same cycle and in conjunction with the asphalt overlay. Overlay life has been extended due to the financial condition of the client.

4,562	sq. yds.
7,642	sq. yds.
2,212	sq. yds.
1,436	sq. yds.
439	sq. yds.
1,623	sq. yds.
17,914	sq. yds.
	4,562 7,642 2,212 1,436 439 1,623 17,914

## **Component Detail**

### Directed Cashflow Calculation Method; Sorted by Category

Streets - Asphalt	, Repair 3		
Category	010 Site	Quantity	8,907 sq. yds.
		Unit Cost	\$73.490
		% of Replacement	6.00%
		Current Cost	\$39,274.53
Placed In Service	01/15	Future Cost	\$44,435.52
Useful Life	12		
		Assigned Reserves at FYB	\$22,910.14
Remaining Life	5	Monthly Member Contribution	\$147.84
Replacement Year	2027	Monthly Interest Contribution	\$13.86
		Total Monthly Contribution	\$161.70

#### Comments:

It is believed that these roads were, at least partially, built inadequately and may require extensive repairs. Extensive damage was found on Talon Ridge Ct. We have included an allowance, but the cost for repairs has yet to be determined. The board should contact a qualified engineer to inspect the roads to determine the street's condition and the provide a solution if a problem does exist.

Percentage of repairs will increase as the pavement ages. It is estimated that a percentage of the asphalt areas will require repair or replacement. The actual condition of the asphalt should be monitored through time and estimates should be adjusted accordingly.

We have budgeted for the asphalt to be repaired on the same cycle and in conjunction with the asphalt overlay. Overlay life has been extended due to the financial condition of the client.

Siahs Glenn	3,306	sq. yds.
Dylan Ct	817	sq. yds.
Talon Ridge Ct	4,117	sq. yds.
Jons Ct	667	sq. yds.
	8,907	sq. yds.

**Component Detail** 

### **Directed Cashflow Calculation Method; Sorted by Category**

Streets - Asphalt, Road Reconstruction		One Time Replac	One Time Replacement	
Category	010 Site	Quantity	8,907 sq. yds.	
		Unit Cost	\$73.490	
		% of Replacement	50.00%	
		Current Cost	\$327,287.72	
Placed In Service	01/15	Future Cost	\$370,296.01	
Useful Life	12			
		Assigned Reserves at FYB	\$5,256.11	
Remaining Life	5	Monthly Member Contribution	\$2,623.69	
Replacement Year	2027	Monthly Interest Contribution	\$20.44	
		Total Monthly Contribution	\$2,644.13	

#### Comments:

It is believed that these roads were, at least partially, built inadequately and may require extensive repairs. Extensive damage was found on Talon Ridge Ct. We have included an allowance, but the cost for repairs has yet to be determined. The board should contact a qualified engineer to inspect the roads to determine the street's condition and the provide a solution if a problem does exist.

Percentage of repairs will increase as the pavement ages. It is estimated that a percentage of the asphalt areas will require repair or replacement. The actual condition of the asphalt should be monitored through time and estimates should be adjusted accordingly.

We have budgeted for the asphalt to be repaired on the same cycle and in conjunction with the asphalt overlay. Overlay life has been extended due to the financial condition of the client.

Siahs Glenn	3,306	sq. yds.
Dylan Ct	817	sq. yds.
Talon Ridge Ct	4,117	sq. yds.
Jons Ct	667	sq. yds.
	8,907	sq. yds.

**Component Detail** 

### **Directed Cashflow Calculation Method; Sorted by Category**

Streets - Inspections		One Time Replace	One Time Replacement	
Category	010 Site	Quantity	1 allowance	
		Unit Cost	\$15,000.000	
		% of Replacement	100.00%	
		Current Cost	\$15,000.00	
Placed In Service	01/21	Future Cost	\$15,375.00	
Useful Life	2			
		Assigned Reserves at FYB	\$7,500.00	
Remaining Life	1	Monthly Member Contribution	\$300.17	
Replacement Year	2023	Monthly Interest Contribution	\$6.21	
		Total Monthly Contribution	\$306.38	

#### Comments:

It is believed that some of the roads were, at least partially, built inadequately and may require extensive repairs. Extensive damage was found on Talon Ridge Ct. We have included an allowance, but the cost for repairs has yet to be determined. The board should contact a qualified engineer to inspect the roads to determine the street's condition and the provide a solution if a problem does exist.

Waterfall Liner				
Category	010 Site	5	Quantity	1,000 sq. ft.
			Unit Cost	\$10.000
			% of Replacement	100.00%
			Current Cost	\$10,000.00
Placed In Service	01/07		Future Cost	\$11,314.08
Useful Life	20			
			Assigned Reserves at FYB	\$7,500.00
Remaining Life	5		Monthly Member Contribution	\$25.15
Replacement Year	2027		Monthly Interest Contribution	\$4.38
			Total Monthly Contribution	\$29.53

#### Comments:

Waterfall was not operating at time of visit. Debris found in spout. Cost is an allowance. Actual design and quantity is unknown.

**Component Detail** 

## Directed Cashflow Calculation Method; Sorted by Category

Access Control	- Gate Operators		
Category	040 Fencing & Access Control	Quantity	1 total
	, and the second s	Unit Cost	\$13,124.908
		% of Replacement	100.00%
		Current Cost	\$13,124.91
Placed In Service	01/07	Future Cost	\$17,651.54
Useful Life	12		
		Assigned Reserves at FYB	\$13,124.91
Remaining Life	0	Monthly Member Contribution	\$47.07
Replacement Year	2022	Monthly Interest Contribution	\$0.32
		Total Monthly Contribution	\$47.38
Comments:			
	2 swing operator	@ \$4.434.27 = \$8.868.54	
	1 allowance loop detectors	@ \$2,430.61 = \$2,430.61	
	1 card reader	@\$1,825.76 = \$1,825.76	
	1	TOTAL = \$13,124.91	
Access Control	- Gates		
Category	040 Fencing & Access Control	Ouantity	1 total
		Unit Cost	\$11.500.000
		% of Replacement	100.00%
		Current Cost	\$11,500.00
Placed In Service	01/07	Future Cost	\$18,844.09
Useful Life	35		
		Assigned Reserves at FYB	\$0.00
Remaining Life	20	Monthly Member Contribution	\$26.35
Replacement Year	2042	Monthly Interest Contribution	\$0.18
		Total Monthly Contribution	\$26.53

#### Comments:

Painted steel. Rusting in locations. Repaint regularly to protect surfaces. Cost is for the gates only.

1	gate, manual, boat storage	@	\$1,500.00	=	\$1,500.00
2	gates, entrance	@	\$5,000.00	=	\$10,000.00
			TOTAL	=	\$11,500.00

**Component Detail** 

## Directed Cashflow Calculation Method; Sorted by Category

Fencing - Wood			
Category	040 Fencing & Access Control	Quantity	1 total
		Unit Cost	\$17,319.000
		% of Replacement	100.00%
		Current Cost	\$17,319.00
Placed In Service	01/07	Future Cost	\$20,586.85
Useful Life	22		
		Assigned Reserves at FYB	\$0.00
Remaining Life	7	Monthly Member Contribution	\$102.30
Replacement Year	2029	Monthly Interest Contribution	\$0.68
		Total Monthly Contribution	\$102.98

#### Comments:

Assumes that fencing will be painted. Some boards will periodically make repairs rather than complete replacement or replace a percentage of the fence every so often.

722	lin. ft. of 2 or 3 rail fence	@	\$22.00	=	\$15,884.00
41	lin. ft. railing at gazebo	@	\$30.00	=	\$1,230.00
		RAL	TOTAL	=	\$17,114.00
	1				

## **Component Detail**

### Directed Cashflow Calculation Method; Sorted by Category

Painting - Fencin	g		
Category	040 Fencing & Access Control	Quantity	722 lin. ft.
		Unit Cost	\$5.200
		% of Replacement	100.00%
		Current Cost	\$3,754.40
Placed In Service	01/07	Future Cost	\$3,944.47
Useful Life	7		
Adjustment	+10	Assigned Reserves at FYB	\$3,312.71
Remaining Life	2	Monthly Member Contribution	\$10.89
Replacement Year	2024	Monthly Interest Contribution	\$1.93
		Total Monthly Contribution	\$12.82

#### Comments:

As fencing ages, prep costs will increase. Replace sections as needed.

Walls should be periodically power washed on a low setting by an experienced professional to remove dirt and debris buildup. Clean and touch up spots and stains as needed.

This paragraph is specifically for communities with hardboard, wood siding, cedar shingles or wood trim. Determining the extent of rot can be quite difficult, and rot may occur beneath the surface. The end grains of trim, head jambs that are flat, and bottom laps of siding tend to rot first. Modern windows sills are meant to drain water, but rotted window moulding is still quite common. Boards with sections that have swelled- typically at the bottom, nails that have pulled through the board leaving a small hole, and flaking paint are all signs of rot or water damage.

Bids for paint may vary considerably since labor costs predominate, and a contractor without work may bid low just to keep crews busy, although the best contractors always seem to be busy. Since the material cost of paint is relatively small, the association should select the highest quality paint it can afford. Higher quality paint looks better and lasts longer. Quality caulk, dry weather, and properly prepped surfaces are all required for a quality job.

The contractor should power wash the building, then walk the building with association representative to identify which boards to replace. Ideally, the entire rotten or damaged siding and trim piece should be replaced, although it is common to replace only the damaged or rotten section. Ensure that window and door trim are replaced entirely.

It is important for the Association to be aware that the IRS has specific rules in determining whether or not paint is considered a capital expense or is in fact part of maintenance. This is in part or wholly determined by how the association files its taxes; whether the association files an 1120 or 1120 H. Please discuss further with the association's CPA and/or attorney to ensure proper tax compliance.

## **Component Detail**

## Directed Cashflow Calculation Method; Sorted by Category

Dock - Structure Replacement			
Category	100 Miscellaneous Structures	Quantity	1 total
		Unit Cost	\$44,590.000
		% of Replacement	100.00%
		Current Cost	\$44,590.00
Placed In Service	01/07	Future Cost	\$74,892.55
Useful Life	36		
		Assigned Reserves at FYB	\$0.00
Remaining Life	21	Monthly Member Contribution	\$98.05
Replacement Year	2043	Monthly Interest Contribution	\$0.66
		Total Monthly Contribution	\$98.71

#### Comments:

4 painted steel pilings are rusting where exposed and visible. They should be primed. Dock is in good condition.

Submerged sections could not be examined. Dock is in good condition, with a few boards recently replaced. There is no pathway between boat ramp and dock. Due to height and length of gangway, attachment point to fixed dock should be inspected regularly to ensure safety. The floatation devices are HDPE plastic wrapped billets.

520	sq. ft. floating dock	@	\$29.00	=	\$15,080.00
342	sq. ft. fixed dock	@	\$29.00	=	\$9,918.00
4	install pilings	@	\$700.00	=	\$2,800.00
1	gangway, 42' long	@	\$6,200.00	=	\$6,200.00
			TOTAL	=	\$33,998.00

This asset is partially or fully, buried or concealed. Since a reserve analysis includes a visual observation only it is impossible to accurately identify, measure or quantify, estimated useful life or cost for any assets that are partially or fully concealed or buried. Although these items may be included in the reserve analysis, Reserve Professionals is not responsible for any discrepancies that may exist between the study and actual conditions or responsible for an omission of such item.

Local contractors specializing in marine construction and/or a marine structural engineer should review the docks and provide additional suggestions. A structural engineer can perform destructive testing which would provide a more accurate assessment of dock conditions, which can be incorporated into the study.

**Component Detail** 

### Directed Cashflow Calculation Method; Sorted by Category

Docks - Floating	, Floor Board Replacement		
Category	100 Miscellaneous Structures	Quantity	1 total
		Unit Cost	\$11,206.000
		% of Replacement	100.00%
		Current Cost	\$11,206.00
Placed In Service	01/07	Future Cost	\$13,653.42
Useful Life	18		
Adjustment	+5	Assigned Reserves at FYB	\$0.00
Remaining Life	8	Monthly Member Contribution	\$58.38
Replacement Year	2030	Monthly Interest Contribution	\$0.39
		Total Monthly Contribution	\$58.77

#### Comments:

Floor board replacement scheduled halfway between replacement of docks. In good condition.

4 painted steel pilings are rusting where exposed and visible. Submerged sections could not be examined. Dock is in good condition, with a few boards recently replaced. There is no pathway between boat ramp and dock. Due to height and length of gangway, attachment point to fixed dock should be inspected regularly to ensure safety. The floatation devices are HDPE plastic wrapped billets.

520	sq. ft. floating dock	@	\$13.00	=	\$6,760.00
342	sq. ft. fixed dock	@	\$13.00	=	\$4,446.00
			TOTAL	=	\$11,206,00

This asset is partially or fully, buried or concealed. Since a reserve analysis includes a visual observation only it is impossible to accurately identify, measure or quantify, estimated useful life or cost for any assets that are partially or fully concealed or buried. Although these items may be included in the reserve analysis, Reserve Professionals is not responsible for any discrepancies that may exist between the study and actual conditions or responsible for an omission of such item.

Local contractors specializing in marine construction and/or a marine structural engineer should review the docks and provide additional suggestions. A structural engineer can perform destructive testing which would provide a more accurate assessment of dock conditions, which can be incorporated into the study.

**Component Detail** 

Directed Cashflow Calculation Method; Sorted by Category

Docks - Gangwa	у		
Category	100 Miscellaneous Structures	Quantity	1 total
		Unit Cost	\$3,500.000
		% of Replacement	100.00%
		Current Cost	\$3,500.00
Placed In Service	01/07	Future Cost	\$4,480.30
Useful Life	25		
		Assigned Reserves at FYB	\$0.00
Remaining Life	10	Monthly Member Contribution	\$14.82
Replacement Year	2032	Monthly Interest Contribution	\$0.10
		Total Monthly Contribution	\$14.92

Comments:

DRAFT

## **Component Detail**

## Directed Cashflow Calculation Method; Sorted by Category

Picnic Shelters			
Category	100 Miscellaneous Structures	Quantity	1 total
		Unit Cost	\$31,480.000
		% of Replacement	100.00%
		Current Cost	\$31,480.00
Placed In Service	01/07	Future Cost	\$40,297.06
Useful Life	25		
		Assigned Reserves at FYB	\$0.00
Remaining Life	10	Monthly Member Contribution	\$133.33
Replacement Year	2032	Monthly Interest Contribution	\$0.89
		Total Monthly Contribution	\$134.22

#### Comments:

#### Cost includes roof replacement.

AT DOCK: Some of the framing projects past the roof and is exposed. This area will deteriorate quicker than the rest of the structure. There is a wood wall, although it does not appear to be a retaining wall, and is likely to have been used for forms. It is possibly used as a skirt to hide a less attractive face. This wood however is KDHT- kilm dried heat treated, which is not the same as pressure treated. Actual information determining the wood was pressure treated could not be found, however mold growth on the railing and walls is apparent. Replace sections as needed. Main columns and beams are not showing this growth and is likely to be pressure treated, but we had no way of confirming.

AT ROADSIDE: There is no parking, pathway or stairs despite being roughly 6' lower than roadway. Area looks like it is still under construction. Board with exposed nails presents a danger. Roofing is damaged.

480	sq. ft. of roofing, gazebo at dock	@	\$40.00	=	\$19,200.00
307	sq. ft. of roofing, gazebo at road	@	\$40.00	=	\$12,280.00
			TOTAL	=	\$31,480.00

## **Component Detail**

### Directed Cashflow Calculation Method; Sorted by Category

EXCLUDED			
Category	110 Miscellaneous	Quantity	
		Unit Cost	\$0.000
		% of Replacement	100.00%
		Current Cost	\$0.00
Placed In Service	01/17	Future Cost	\$0.00
Useful Life	n.a.		
		Assigned Reserves at FYB	\$0.00
Remaining Life	n.a.	Monthly Member Contribution	\$0.00
Replacement Year	n.a.	Monthly Interest Contribution	\$0.00
		Total Monthly Contribution	\$0.00

#### Comments:

Trail maintenance - Work is being performed by homeowners.

Asphalt at the end of Brights Road - Believe to be state maintained, although signs at transition between asphalt and dirt road indicated the contrary.

Water and sewer mains and laterals - It is our understanding that the community is on well and septic.

Fire protection system - We have not received any information on the system and can not confirm if any components need to be replaced over time.

Maintenance of the boat storage area - Currently there is little stone for storage of boats and the area is not being maintained. It is not possible to determine area that will be used for this purpose.

Landscape Refurbishment or tree removal - Per request of board.

Boat Launch Repair - Reserve study balance is based on \$160,000 deduction for boat launch repairs.

**Component Detail** 

## Directed Cashflow Calculation Method; Sorted by Category

Pumps - Centrifu	ıgal		
Category	110 Miscellaneous	Quantity	1 pump
		Unit Cost	\$2,600.000
		% of Replacement	100.00%
		Current Cost	\$2,600.00
Placed In Service	01/07	Future Cost	\$3,328.22
Useful Life	10		
Adjustment	+5	Assigned Reserves at FYB	\$2,600.00
Remaining Life	0	Monthly Member Contribution	\$11.01
Replacement Year	2022	Monthly Interest Contribution	\$0.07
		Total Monthly Contribution	\$11.08

#### Comments:

Water fall was not operating at time of visit, but is believed to be functioning properly.

Signage - Metal,	Monument		
Category	110 Miscellaneous	Quantity	1 allowance
		Unit Cost	\$1,200.000
		% of Replacement	100.00%
	$\sim$	Current Cost	\$1,200.00
Placed In Service	01/07	Future Cost	\$1,426.42
Useful Life	22		
		Assigned Reserves at FYB	\$0.00
Remaining Life	7	Monthly Member Contribution	\$7.09
Replacement Year	2029	Monthly Interest Contribution	\$0.05
		Total Monthly Contribution	\$7.14

Comments:

Paint sign as needed. This is an allowance.

**Component Detail** 

## Directed Cashflow Calculation Method; Sorted by Category

Signage - Streets	8		
Category	110 Miscellaneous	Quantity	1 total
		Unit Cost	\$2,184.000
		% of Replacement	100.00%
		Current Cost	\$2,184.00
Placed In Service	01/07	Future Cost	\$2,795.70
Useful Life	25		
		Assigned Reserves at FYB	\$0.00
Remaining Life	10	Monthly Member Contribution	\$9.25
Replacement Year	2032	Monthly Interest Contribution	\$0.06
		Total Monthly Contribution	\$9.31

#### Comments:

8	street signs, wood post	@	\$273.00	=	\$2,184.00
		_	TOTAL	=	\$2,184.00
	<pre></pre>	$\mathcal{O}$			

# Eagle Pointe Shores Homeowners Association, inc. Detail Report Index

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Number of components included in this reserve analysis is 24.



The shelters are not being maintained.



The shelters are not being maintained.





xtensive damage found along Talon Ridge Ct.



Extensive damage found along Talon Ridge Ct.



Stone will need to be cleaned.

## The Association of Professional Reserve Analysts

#### STANDARDS OF PRACTICE

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Part III. Limitations, Exceptions, and Exclusions SECTION 1 – *Site Visit* SECTION 2 – *Physical Analysis* SECTION 3 – *Financial Analysis* 

Part IV. Reserve Study Report Contents

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#### Introduction

These Standards of Practice provide guidelines for the Association of Professional *Reserve Analysts* and define certain terms relating to Reserve Studies. It is the intention of these Standards to be viewed as a minimum standard and not as a limitation on the opinion, recommendations, or practice of the individual *Reserve Analyst*. Italicized words in these Standards are defined in Part V, Glossary of Terms.

#### Part I. Definitions and Scope

- A. A *Reserve Study* is a budgeting tool intended to aid the directors of Community Associations or other entities responsible for maintaining residential property, retail property, special districts or any other physical plant/property for the future repair, replacement, and restoration of major components of the common areas during the *Economic Life* of a property.
- B. A *Reserve Study* is a collaboration between the client and *Reserve Analyst* that brings together the client's unique firsthand knowledge with the Analyst's professional expertise.
- C. A *Reserve Study* is comprised of two parts:
  - Physical Analysis: Information about the physical condition and repair/replacement cost of the property Components the client is obligated to maintain. The Physical Analysis comprises the Component Inventory and the Component Assessment and Valuation. The Component Inventory should be relatively "stable" over time while the results of the Component Assessment and Valuation will change over time.

- 2) *Financial Analysis*: The evaluation and analysis of the client's reserve income and expenditures. The *Financial Analysis* opines on the *Funding Plan*, which recommends an appropriate reserve contribution, and the current *Reserve Fund* status measured as *Percent Funded* or cash balance.
- D. A *Reserve Study Site Visit* is performed to determine the *Component Inventory* and the *Component Assessment and Valuation* subject to the limitations, exceptions, and exclusions outlined in Part III.
- E. There are three standard Levels of Service
  - I. Full Study
  - II. Update with Site Visit Study
  - III. Update without Site Visit Study

#### Part II. Standards of Practice

### **SECTION 1** – *Physical Analysis*

- A. Information within the *Physical Analysis* Section comes from either a *Site Visit* or a previous *Reserve Study* and from any research with the client, client's representatives, vendors, or other sources.
- B. In general, construction defects, acts of God, environmental hazards, future code changes, and unpredictable events shall not be considered. The *Reserve Analyst* will assume that the *Reserve Components* have been properly built and installed. The *Reserve Analyst* shall at minimum consider all major components that have a predictable remaining useful life of 30 years or less except when specifically contracted for or dictated otherwise by applicable statute.
- C. A *Physical Analysis* is not intended to be exhaustive in nature and may include representative sampling.
- D. The purpose of a *Physical Analysis* is to estimate the general condition of systems and components and their repair, replacement, or restoration needs beyond that which can be performed as an operating expense.
- E. The condition assessment of like systems or components may be evaluated and funded for as a group. Individual failures within these groups need not be separately accounted for.
- F. In general a Reserve Component is a physical asset that is:
  - 1) Association responsibility
  - 2) With limited Useful Life expectancy
  - 3) Predictable Remaining Useful Life expectancy
  - 4) Above a minimum threshold cost

5) Or where required by applicable statutes

#### **SECTION 2** – Financial Analysis

- A. The *Financial Analysis* is a function of the expenditures outlined in the *Physical Analysis* and the current financial condition of the *Association*.
- B. The *Financial Analysis* portion of a *Reserve Study* shows the current status of the *Reserve Fund* measured as *Percent Funded*.
- C. *Percent Funded* shall be the percentage of the actual or estimated cash balance versus the *Fully Funded Balance*.
- D. The Fully Funded Balance (FFB) shall be calculated by either of the following two equations:

$$FFB = \left(\frac{Current \ Cost * Sffective \ Age}{Useful \ Ltfe}\right)$$

 $FFB = \left(\frac{Current \ Cast * Effective \ Age}{Useful \ Life}\right) * (1 + (1 + \text{Interest Rate})^{-RUL} - (1 + \text{Inflation Rate})^{-RUL})$ 

- E. The *Financial Analysis* portion of a *Reserve Study* recommends a *Funding Plan* based on the current fund status (measured as *Percent Funded* or cash balance) and the future financial needs of the projects within the *Component* list.
- F. The *Funding Plan* shall be prepared using either the *Cash Flow Method* or *Component Method* and shall recommend a periodic Reserve Contribution.
- G. The Funding Plan shall have one of the four following Funding Goals: Full Funding (Fully Funded), Threshold Funding, Statutory Funding, or Baseline Funding.
- H. In general any *Funding Plan* shall meet the following Funding Principles: Sufficient funds when required, stable contribution rate over the years, evenly distributed contributions over the years, and fiscally responsible.
- I. The *Funding Plan* shall include a reasonable and fiscally responsible provision for inflation and interest. A general description of the method for which inflation and interest are calculated as well as the rates used shall be included in the report.
- J. Future costs estimates are based on the current costs and the inflation provision.
- K. Financial Analysis shall include a 30-year summary of the Funding Plan.

#### Part III. Limitations, Exceptions, and Exclusions

#### **SECTION 1** – *Site Visit*.

The following are typically excluded from the *Site Visit*. Items excluded from the *Site Visit* are not necessarily excluded from the *Physical Analysis* or *Financial Analysis*.

- A. Systems or components of a building, or portions thereof, which are not *Readily Accessible*, or are excluded due to circumstances beyond the control of the *Reserve Analyst* or which the Client has agreed or specified to be excluded.
- B. Systems or components, or portions thereof, which are under ground, under water, or where the *Inspector* must come into contact with water.
- C. Determining compliance with manufacturers' installation guidelines or specifications, building codes, accessibility standards, conservation or energy standards, regulations, ordinances, covenants, or other restrictions.
- D. Structural, architectural, forensic, geological, environmental, hydrological, land surveying, or soils-related examinations.
- E. Acoustical or other nuisance characteristics of any system or component of a building, complex, adjoining property, or neighborhood.
- F. Conditions related to animals, insects, or other organisms, including fungus and mold, and any hazardous, illegal, or controlled substance, or the damage or health risks arising there from.
- G. Risks associated with events or conditions of nature including, but not limited to; geological, seismic, wildfire, and flood.
- H. Water testing any building, system, or component or determine leakage in shower pans, pools, spas, or any body of water.
- I. Differentiating between original construction or subsequent additions or modifications.
- J. Fire extinguishing and suppression systems and components or determining fire resistive qualities of materials or assemblies.
- K. Elevators, lifts, and dumbwaiters.
- L. Lighting pilot lights or activating or operating any system, component, or appliance that is shut down, unsafe to operate, or does not respond to normal user controls.
- M. Operating shutoff valves or shutting down any system or component.
- N. Dismantling any system, structure, or component or removing access panels.

Note:

The Reserve Analysts may, at his or her discretion:

- 1) Include in the *Site Visit* any building, system, component, appliance, or improvement not included or otherwise excluded by these Standards of Practice. Any such inclusion to the *Site Visit* shall comply with all other provisions of these Standards.
- 2) Include photographs in the written report or take photographs for *Inspector's* reference without inclusion in the written report. Photographs may not be used in lieu of written documentation.

*Components* excluded for the *Site Visit* may be included in the *Physical Analysis*, in part or in whole, if they meet the necessary qualifications to be a *Reserve Component* as outlined in Part II Section 1.F at the discretion of the *Reserve Analyst*.

#### **SECTION 2** – *Physical Analysis*.

The following are typically excluded from the Physical Analysis:

- A. Specifying repairs/replacement procedures or estimating cost to correct.
- B. Systems or components that typically experience an *Extended Useful Life*.
- C. Systems or components that do not have a predictable *Remaining Useful Life*.
- D. Systems or components that the client has advised the *Reserve Analyst* to omit from the *Reserve Study*.
- E. Systems or components provided for in whole under a maintenance contract.
- F. Systems or components provided for in whole within another part of the budget.
- G. Leased systems or components.
- H. Services of a legal nature including legal interpretations or opinions of any documents, maps, etc.

#### **SECTION 3** – Financial Analysis

The following are typically excluded from the Financial Analysis:

- A. Expected rates of return on investments significantly beyond that of current savings rates.
- B. Expected settlements or monies owed or to be transferred to reserves, before the final amount has been set and approved by the board.
- C. Limitations to increases of the reserve contribution or assessments from Governing Documents.

- D. Investment strategies or financial planning advice beyond that of the recommended reserve contribution.
- E. Auditing or other accounting services, *Reserve Analyst* shall assume financial information provided by the client or client's representative is accurate.

#### **IV. Reserve Study Report Contents**

A *Reserve Study* shall conform to the *Reserve Study* Contents Checklist found within the APRA Application for Membership and Professional Reserve Analyst (PRA) Designation. In addition to these requirements, the *Reserve Study* shall disclose any deferral or exclusion that has a material impact to the results of the study.

#### V. Glossary of Terms

\*Note: All definitions apply to derivatives of these terms when italicized in the text. 1. *Association:* For the purposes of this document "*Association*" shall encompass Community *Associations*, schools, commercial buildings, mutual utility properties, worship facilities, and any other entity interested in the long range planning for the maintenance and replacement of the major components.

2. *Cash Flow Method* - A method of calculating Reserve contributions 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 anticipated schedule of Reserve expenses until the desired Funding Goal is achieved.

3. Component – or Reserve Component. An individual line item in the Reserve Study developed or updated in the Physical Analysis. These elements form the building blocks of the Reserve Study. Components typically are: 1) Association responsibility, 2) with limited Useful Life expectancies, 3) predictable Remaining Useful Life expectancies, 4) above a minimum threshold cost, and 5) as required by applicable statutes.

4. *Component Assessment and Valuation* - The task of estimating *Useful Life, Remaining Useful Life*, and Repair or Replacement Costs for the *Reserve Components*. This task is accomplished either with or without onsite visual observations, based on Level of Service selected by the client.

5. Component Inventory - The task of selecting and quantifying Reserve Components. This task is accomplished through any of the following: onsite visual observations, review of Association design and organizational documents, review of a previous Reserve Study, review of established Association precedents.

6. *Component Method* - A method of calculating Reserve contributions where the total reserve contribution is based on the sum of contributions for individual *Components*.

*Current Cost* – A component's current replacement cost as of the date of the financial analysis. Current cost may be less or greater than the total replacement cost depending on the defined replacement scope.
 *Deficit* - An actual (or projected) *Reserve Balance* less than the *Fully Funded Balance*. The opposite would be a *Surplus*.

9. Economic Life – the portion of the total life of a property up until the infrastructure is no longer economically viable to maintain and a significant reinvestment, rebuilding, or renovation is necessary.
10. 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 computation.

11. Extended Useful Life - Systems or Components generally designed to last the life of the community or

for which the replacement cost would be economically impractical. Items generally excluded in this category include utility systems, building infrastructure, permanent structures, asphalt streets, swimming pools, tennis courts, etc.

12. *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. The *Financial Analysis* is one of the two parts of a *Reserve Study*.

13. Full Study - Complete qualitative and quantitative study, includes site visit.

14. *Fully Funded* - 100% Funded. When the actual (or projected) *Reserve Balance* is equal to the *Fully Funded Balance*.

15. *Fully Funded Balance (FFB)* - Total Accrued Depreciation. An indicator against which Actual (or projected) *Reserve Balance* can be compared. In essence, it is the *Reserve Balance* that is proportional to the current Repair/replacement cost and the fraction of life "used up". This number is calculated for each *Component*, then summed together for an *Association* total. Two formulae 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.

16. *Funding Goals* - Independent of *Methodology* utilized, the following represent the basic categories of *Funding Plan* goals.

16.1. *Baseline Funding* - Establishing a *Reserve Fund*ing goal of keeping the Reserve cash balance above zero.

16.2. *Fully Funded* - Setting a *Reserve Fund*ing goal of attaining and maintaining Reserves at or near 100% funded.

16.3. *Statutory Funding* - Establishing a *Reserve Funding Goal* of setting aside the specific minimum amount of funds required by applicable statutes.

16.4. *Threshold Funding* - Establishing a *Reserve Fund*ing 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 Funded"*.

17. *Funding Plan* - An *Association*'s plan to provide income to a *Reserve Fund* to offset anticipated expenditures from that fund.

18. *Inflated Expenditures* - The combined annual expenditures for a given year inflated to reflect their estimated future replacement cost.

19. *Inflationary Multiplier* - The number multiplies by the annual expenditures to estimate the future replacement cost. If inflation was currently projected at 3%, the initial year multiplier would be 1.00, Next Year 1.03, Next year 1.061, etc.

20. *Methodology* - A statement which addresses the procedures and methods used to prepare a *Reserve Study* 

21. *Minimum Balance* - A minimum *Reserve Balance* established by the client or recommended within the *Financial Analysis*.

22. *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.

23. *Physical Analysis* - The portion of the *Reserve Study* where the *Component Inventory* and *Component Assessment and Valuation* adjustment tasks are performed. This represents one of the two parts of the *Reserve Study*.

24. Quantity - The total Quantity of each Component.

25. *Readily Accessible* - Can be reached, entered, or viewed without difficulty, moving obstructions, or requiring any action which may harm or endanger persons or property.

26. *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. Replacements anticipated to occur in the initial or base year have "zero" *Remaining Useful Life*.

27. Reserve Analyst - A person who prepares Reserve Studies.

28. Reserve Assessment - The portion of assessments contributed to the Reserve Fund.

29. Reserve Balance - Actual or projected funds as of a particular point in time that the Association has

identified for use to defray the future repair or replacement of those major *components* which the *Association* is obligated to maintain. Also known as Reserves, Reserve Accounts, Cash Reserves. 30. *Reserve Component* – see *Component*.

31. *Reserve Fund* – Those funds set aside for the future repair, replacement, or restoration of the *Reserve Components*.

32. *Reserve Study* - A budgeting tool which identified the current status of the *Reserve Fund* and a stable and equitable *Funding Plan* to offset the anticipated future "major common area expenditures". The *Reserve Study* consists of two parts: the *Physical Analysis* and the *Financial Analysis*.

33. *Site Visit* – A visit to the common areas of the *Association* for the purposes of determining the *Component Inventory* and the *Component Assessment and Valuation*.

34. Special Assessment - An assessment levied on the members of an Association in addition to regular assessments. Special Assessments are often regulated by Governing Documents or applicable statutes.
35. Straight Line - A formula used to calculate the annual Reserve Fund contribution for a specific Component. Projected replacement cost divided by the Useful Life equals the annual payment.
36. Surplus - An actual (or projected) Reserve Balance greater than the Fully Funded Balance. See "Deficit".

37. Unit Cost - The cost of a Component. The Unit Cost is multiplied by the Component's Quantity to obtain the total estimated replacement cost for the Component.

38. *Unit of Measure* - Refers to the method of measurement applied to a particular *Component*. The following are examples:

38.1. Square Feet

38.2. Lineal Feet or Linear Feet

38.3. Each

38.4. Square Yards

38.5. Lump Sum

38.6. Squares

39. Update with Site Visit - Qualitative only update and review study, includes site visit.

40. Update without Site Visit – Financial only update study, does not include site visit.

41. 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 in its present application or installation.