

# RESERVE

— PROFESSIONALS —

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The Orchard Villas Condominium Unit Owners Association, Inc.





September 19, 2019

Dear Mr. Robbins,

Please find attached our final draft of the reserve study for The Orchard Villas Condominium Unit Owners Association, Inc. It is our understanding that the reserve level on 1/1/20, the beginning of the fiscal year is expected to be \$340,000.00, which constitutes 43.83% of full funded reserves, a fair level of reserves.

We have made changes in response to our 6/27/19 meeting and 9/18/19 email

It does take a little time to familiarize yourself with some of the terms and the calculations, but otherwise the study is fairly self-explanatory. 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.

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.

Since a reserve analysis includes a only visual observation 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. 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.

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,



Alex Liu, PRA, RS President Reserve Professionals 919-758-9788 205 S. Academy St. #3851 Cary, NC 27519 ReserveStudyCarolinas.com



### 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)

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9.19.2019(1) RESERVE PROFESSIONALS

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.

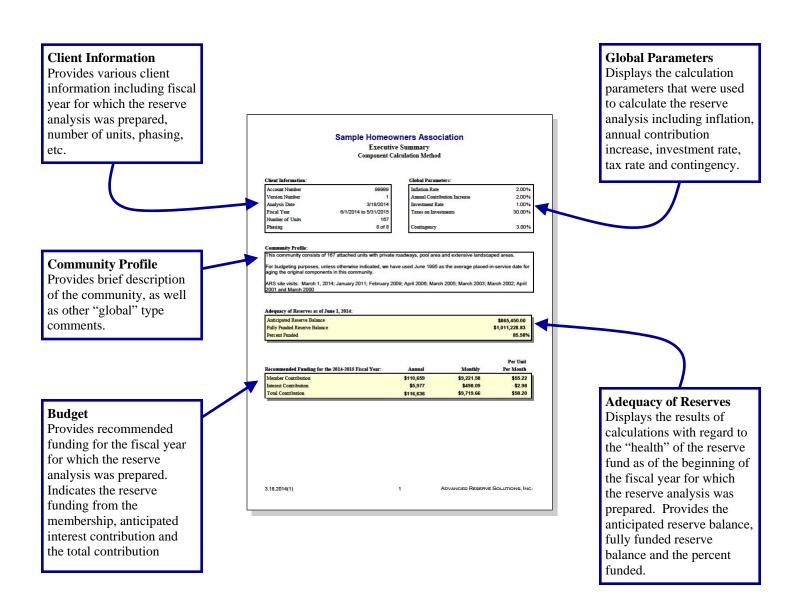
The cash flow calculation method is typically used for under-funded associations (less than 65% funded) with a goal/objective of full funding, threshold funding, baseline funding or statutory funding.

#### ♦ ♦ ♦ ♦ 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.

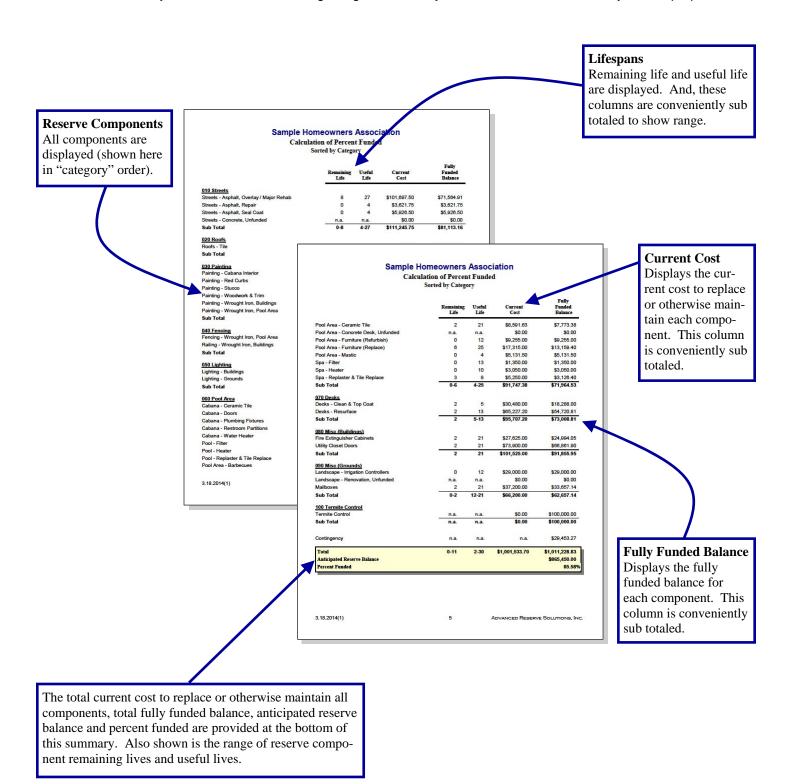
#### **Executive Summary**

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.



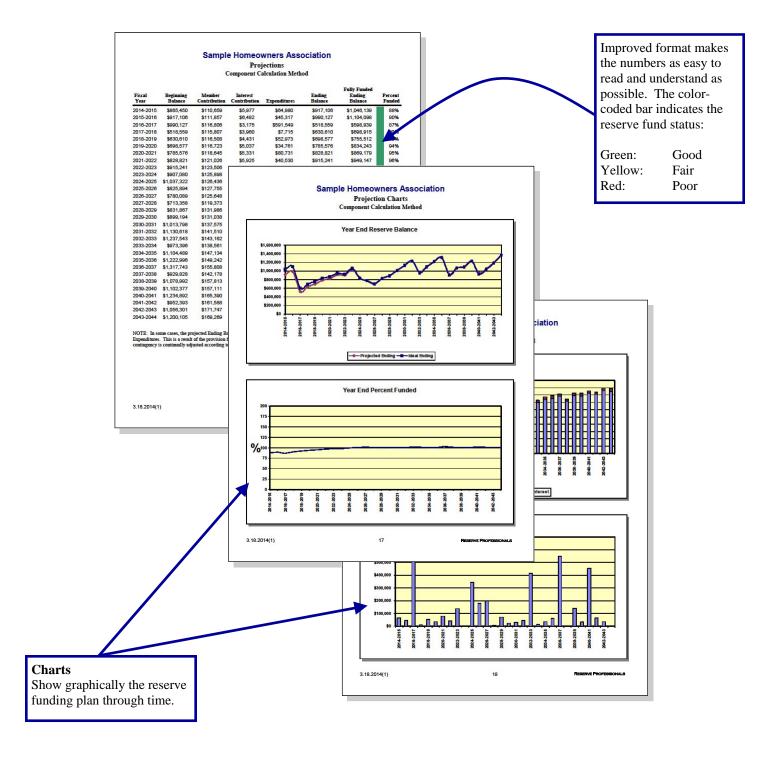
#### **Management / Accounting Summary and Charts**

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.

#### **Balance at FYB** Sample Homeowners Association Shows the amount of Management / Accounting Summary Component Calculation Method; Sorted by Category reserve funds assigned to Balance at Fiscal Year Beginning each reserve component. And, this column is 010 Streets Streets - Asphalt, Overlay / Major I \$17 837 ON \$040 RO conveniently sub totaled. Streets - Asphalt, Repair \$3,621.75 \$78.20 \$0.25 \$78.45 Streets - Asphalt Seal Coal \$5,926.50 \$127.96 \$0.41 \$128.37 Streets - Concrete, Unfunded \$27,186,15 Sub Total \$1,155.84 \$14.04 \$1,169.88 020 Roofs Sub Total Sample Homeowners Association 030 Painting Painting - Cab Management / Accounting Summary conent Calculation Method; Sorted by Category Painting - Red Curbs Painting - Stucco Painting - Woodwork & Trim Fiscal Year Beginning Painting - Wrought Iron, Building \$3,250.00 Sub Total Pool - Replaster & Tile Replac \$7,070.58 \$146.76 \$151.37 Pool Area - Barbecues Pool Area - Ceramic Tile \$1 010 00 \$29.96 040 Fencing Fencing - Wrought Iron, Pool Area Railing - Wrought Iron, Buildings Pool Area - Concrete Deck, Unfun \$0.00 \$0.00 \$0.00 \$0.00 Sub Total Pool Area - Furniture (Refurb \$9.255.00 \$70.05 \$0.23 \$70.27 Pool Area - Furniture (Repla 050 Lighting Pool Area - Mastic \$5,131.50 \$110.79 \$0.36 \$111.15 Spa - Filter \$12.11 sn na iation Sub Total Spa - Replaster & Tile Replace \$3,126.40 \$64.12 \$2.04 \$66.15 060 Pool Area Cabana - Ceramic Tile Cabana - Doors Sub Total 070 Decks Decks - Clean & \$18,288.00 \$539.52 \$12.44 \$551.96 Cabana - Plumbing Fixtures \$73,008.81 \$1,046.45 \$46.09 \$1,092.54 Pool - Filter **Monthly Funding Utility Closet Doors** \$66,861.90 \$372.15 \$40.32 \$412.47 3 18 2014(1) Sub Total Displays the monthly 090 Misc (Grounds) funding for each Landscape - Irrigation Controllers \$29,000.00 \$219.48 \$220.19 \$0.00 \$0.00 \$0.00 \$0.00 component from the \$187.33 Sub Total \$62,657,14 \$406.82 \$21,00 \$427.82 members and interest. 100 Termite Control Total monthly funding is \$100,000.00 \$0.00 \$58.52 Sub Total \$0.00 \$58.52 also indicated. And, \$25,207.28 \$268.59 \$15.61 these columns are \$865,450.00 \$9,221.58 \$498.09 \$9,719.66 Total conveniently sub totaled. 3.18.2014(1) Pie Charts Show graphically how the reserve fund is 3.18.2014(1) distributed amongst the reserve components and how the components are funded.

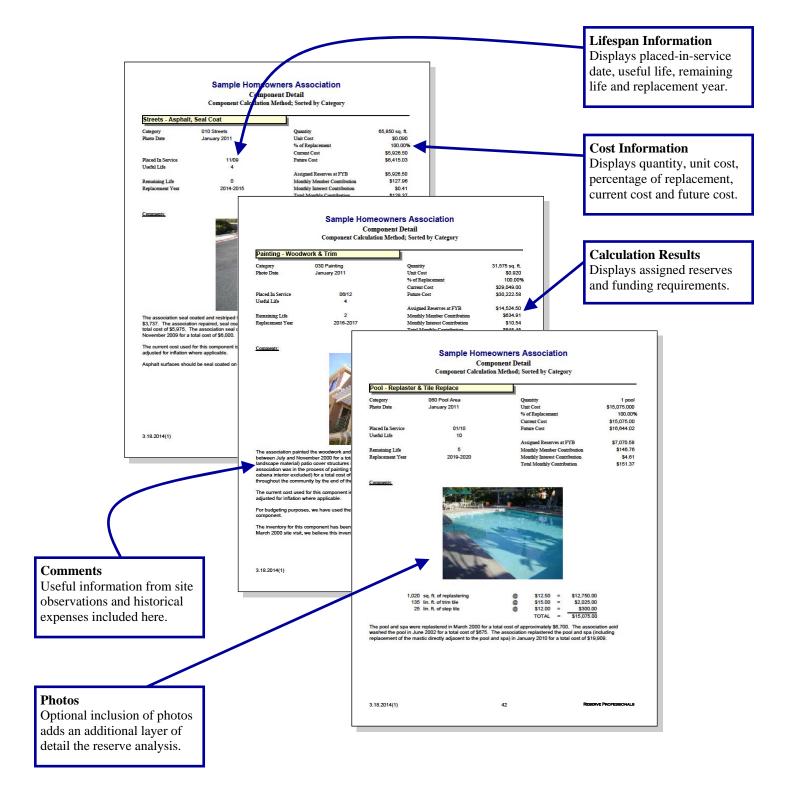
#### **Projections and Charts**

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.



#### ♦ ♦ ♦ ♦ GLOSSARY OF KEY TERMS ♦ ♦ ♦ ♦

#### **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 =

Anticipated Reserve Fund Balance

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%.

#### <u>Phasing</u>

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.

#### **Useful Life**

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 of replacement costs and life expectancies as well as assumptions regarding future events. Some 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	1170
Version Number	1
Analysis Date	09/19/2019
Fiscal Year	1/1/2020 to 12/31/2020
Number of Units	85
Phasing	1 of 1

#### **Global Parameters:**

Inflation Rate Annual Contribution Increase	2.50 % 3.00 %
Investment Rate	2.00 %
Taxes on Investments	18.00 %
Contingency	3.00 %

#### **Community Profile:**

The community consists of 85 units with clubhouse, gym, and swimming pool.

Unless otherwise indicated, we have used the date 6/2008, as the basis for aging of all original components.

Level of Study: Full with Site Inspection Calculation Method Used: Cash Flow Funding Strategy: 80% of Full Funding

Date of Site Visit: 5/20/19

Revised 6/27/19 & 9/6/19

#### Adequacy of Reserves as of January 1, 2020:

Anticipated Reserve Balance	\$340,000.00
Fully Funded Reserve Balance	\$775,737.97
Percent Funded	43.83%

**Per Unit** 

Recommended Funding for the 2020 Fiscal Year:	Annual	Monthly	Per Month
Member Contribution	\$109,000	\$9,083.33	\$106.86
Interest Contribution	\$5,754	\$479.48	\$5.64
Total Contribution	\$114,754	\$9,562.81	\$112.50

### **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. A reserve study is not intended to be used to perform an audit, an analysis of quality, a forensic study or a background check of historical records. A site visit conducted in conjunction with a reserve study should not be deemed to be a project audit or quality inspection. The physical analysis performed during this site visit is not intended to be exhaustive in nature and may include representative sampling.
- 7) Since a reserve analysis is limited to a visual observation 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. Additionally, the extent of the future repairs can't be ascertained by a visual observation. Additionally predicting when the repairs will be needed is not possible by visual observation. A more detailed inspection maybe possible, but is not within the scope of this study. Therefore, it is important for the client to understand that the cost and timing of repairs or replacement is in fact, speculation. 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) In many instances actual costs and timing for repairs may vary significantly. This reserve study may not fund for the worst case scenario. We believe this is to the benefit of the client by not tying up funds for repair/replacement events that may not happen for 20, 30 or more years than the worst case scenario.
- 9) 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.
- 10) It is important to be aware that the useful life of an asset may not indicate that the repair/replacement date will occur at that date, but rather that a certain amount of fund might be expended by this date. In other words, an asset with a 20 year useful life may have had repairs performed 4 or 5 times in that 20 year period. A reserve study, which looks out 30 years is not flexible enough to take into account all the smaller activities that would fall outside of maintenance, but still

### **Preparer's Disclosure Statement**

would occur outside a regular predictable schedule. Additionally, some assets fail unexpectedly without providing any sign of distress in advance. In these instances, a useful life would indicate not that a component should be replaced at the end of this period, but rather that funds should be accumulated by the end of this period for when the item will need to be replaced.

- 11) Often, similar components have differing ages or costs. In an effort to alleviate unnecessary complexity, the study may use an average or median useful life, age, or cost for all of similarly grouped components.
- 12) The projected life expectancy of the major components and the funding needs of the reserves of the association are based upon the association performing appropriate routine and preventative maintenance for each major component. Failure to perform such maintenance can negatively impact the remaining useful life of the major components and dramatically increase the funding needs of the reserves of the association.
- 13) The results of this study are based on the independent opinion of the preparer and his experience and research during the course of his career in preparing Reserve Studies. In addition the opinions of experts on certain components have been gathered through research within their industry and with client's actual vendors. There is no implied warranty or guarantee regarding our life and cost estimates/predictions. There is no implied warranty or guarantee in any of our work product. Our results and findings will vary from another preparer's results and findings. A Reserve Study is necessarily a work in progress and subsequent Reserve Studies will vary from prior studies.
- 14) This Reserve Study assumes that all construction assemblies and components identified herein are built properly and are free from defects in materials and/or workmanship. Defects can lead to reduced useful life and premature failure. It was not the intent of this Reserve Study to inspect for or to identify defects. If defects exist, repairs should be made so that the construction components and assemblies at the community reach their full and expected useful lives.
- 15) We have assumed any and all components have been properly built and will reach normal, typical life expectancies. In general a reserve study is not intended to identify or fund for construction defects. We did not and will not look for or identify construction defects during our site visit.
- 16) The costs and timing associated with any repairs listed in the study are speculative. The extent of the repairs is unknown. How a repair will be performed can vary significantly, which will affect the cost. Additionally, costs have not taken into account upgrades required to bring the current construction up to current code.
- 17) A reserve study is based on the aggregate cost and replacement schedule of the client's assets. It would be inappropriate to consider any asset's funding in isolation. Aggregating costs creates a safety net for any cost discrepancies. It is highly likely that some assets will cost more than predicted, and others less. The differences between predicted and actual costs are meant to offset each other. Thus, any cost savings reaped when an asset is repaired or replaced should remain in reserves and not distributed for other purposes.
- 18) Maintenance responsibility of water, sewer, and storm systems varies by municipality. Even within individual municipalities this responsibility can vary significantly due to negotiations between a developer and planning developments. We have not contacted any government agency to confirm maintenance responsibility, nor have pertinent public records been reviewed. As a result, quantities of water, sewer, and storm lines and boxes may be inaccurate. Generally speaking, we include water and sewer mains when streets are private and simply measure the linear feet of the road as a basis for this quantity since actual location is unknown in most instances. If a community has public streets, we have excluded all items within the right of way.
- 19) Storm water systems are difficult to locate. Area drains located in the turfed or landscaped areas have been excluded, unless specifically noted. Unless noted, storm line quantities include only inflow and outflow pipe to retention ponds where roads are public, and also pipe in roads where roads are private. Any storm pipe located in other areas has not been accounted for. If such pipe does exist in your community the quantities may not be accurate. Culverts under public roads are assumed to be publicly maintained.

Site Visits: If a site visit has been performed during the preparation of this reserve study, no invasive testing was

### **Preparer's Disclosure Statement**

performed. The physical analysis performed during the site visit was not intended to be exhaustive in nature and may have included representative sampling.

Update Reserve Studies: Level II Studies: Quantities of major components as reported in previous reserve studies are deemed to be accurate and reliable. The reserve study relies upon the validity of previous reserve studies. Level III Studies: In addition to the above we have not visited the property when completing a Level III "No Site Visit" study. Therefore we have not verified the current condition of the common area components.

### **Calculation of Percent Funded**

**Sorted by Category** 

	Remaining Life	Useful Life	Current Cost	Fully Funded Balance
010 Site				
Asphalt - Repairs	0	7	\$7,369.05	\$7,369.05
Asphalt - Repaving, 1.5" Overlay, Ph. 1	8	20	\$88,614.24	\$53,168.54
Asphalt - Repaving, 1.5" Overlay, Ph. 2	14	20	\$159,954.08	\$47,986.22
Asphalt - Seal Coat	0	5	\$20,967.52	\$20,967.52
Landscaping - Irrigation System, Replace	15	25	\$50,000.00	\$20,000.00
Landscaping - Refurbish	0	10	\$6,265.36	\$6,265.36
Mailboxes - Replace	14	21	\$23,375.00	\$7,791.67
Pond - Dredging and Maintenance, Allowance	13	25	\$30,415.62	\$14,599.50
Sewer - Laterals, Repairs, Allowance	28	35	\$7,373.52	\$1,474.70
Signage - Monument, Replace	12	24	\$8,000.00	\$4,000.00
Site Concrete - Repair or Replace	11	18	\$3,400.00	\$1,322.22
Site Drainage - Repairs or Regrading, Allowance	3	10	\$8,170.43	\$5,719.30
Walls - Retaining, Block	20	32	\$84,567.98	\$31,712.99
Sub Total	0-28	5-35	\$498,472.81	\$222,377.09
020 Roofs				
Roofs - Composition Shingle, Replace Ph. 1	9	20	\$185,144.52	\$101,829.49
Roofs - Composition Shingle, Replace Ph. 2	13	20	\$444,252.63	\$155,488.42
Sub Total	9-13	20	\$629,397.15	\$257,317.91
030 Painting				
Siding and Trim - Repaint, Ph. 1	7	9	\$35,201.76	\$7,822.61
Siding and Trim - Repaint, Ph. 2	2	9	\$84,405.35	\$65,648.61
Sub Total	2-7	9	\$119,607.11	\$73,471.22
040 Famailian O. Assaura Osautus I				
040 Fencing & Access Control	13	25	\$7,491.60	\$3,595.97
Fencing - Aluminum, Pool	18	25 25		
Fencing - Vinyl Fencing - Wood, Maintenance		25 14	\$156,568.28 \$6,381.12	\$43,839.12 \$5,013.74
Sub Total	3 3-18	14-25	\$170,441.00	\$5,013.74 <b>\$52,448.82</b>
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062 Pool			•	
Pool - Replaster & Tile Replacement	11	12	\$16,778.43	\$1,398.20
Pool Area - Furniture	2	3	\$1,920.00	\$640.00
Pool Deck - Repaint Overlay	4	5	\$5,107.20	\$1,021.44
Pool Deck - Replace	24	35	\$32,813.76	\$10,312.90
Trellis - Wood, Patio Cover	10	22	\$1,600.00	\$872.73
Sub Total	2-24	3-35	\$58,219.39	\$14,245.27

### **Calculation of Percent Funded**

**Sorted by Category** 

	Remaining Life	Useful Life	Current Cost	Fully Funded Balance
070 Interior				
Floor Cover - Carpet	3	15	\$8,848.53	\$7,078.82
Furniture - Clubhouse	5	5	\$7,209.50	\$0.00
Interior Renovation - Gym	6	18	\$3,963.26	\$2,642.17
Interior Renovation - Restrooms	10	22	\$19,997.27	\$10,907.60
Interior Renovation: Kitchen & Club Rms	10	22	\$47,238.22	\$25,766.30
Interior Renovation: Miscellaneous	13	25	\$15,014.58	\$7,207.00
Sub Total	3-13	5-25	\$102,271.36	\$53,601.90
080 Exterior				
Cultured Stone - Clean, Seal, and Point up	23	30	\$85,684.34	\$19,993.01
Gutters & Downspouts - Replace	23	30	\$115,652.96	\$26,985.69
Window & Door Replacement, Clubhouse	18	30	\$43,068.63	\$17,227.45
Sub Total	18-23	30	\$244,405.92	\$64,206.15
090 Equipment				
Gym Equipment - Replace	6	17	\$13,098.20	\$8,475.31
HVAC - Split System	0	4	\$7,000.00	\$7,000.00
Sub Total	0-6	4-17	\$20,098.20	\$15,475.31
110 Miscellaneous				
EXCLUDED	n.a.	n.a.	\$0.00	\$0.00
Sub Total	n.a.	n.a.	\$0.00	\$0.00
Contingency	n.a.	n.a.	n.a.	\$22,594.31
Total	0-28	3-35	\$1,842,912.94	\$775,737.97
Anticipated Reserve Balance				\$340,000.00
Percent Funded				43.83%

## **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				
Asphalt - Repairs	\$7,369.05	\$163.76	\$1.52	\$165.28
Asphalt - Repaving, 1.5" Overlay, Ph. 1	\$53,168.54	\$326.54	\$73.46	\$400.00
Asphalt - Repaving, 1.5" Overlay, Ph. 2	\$0.00	\$775.21	\$7.19	\$782.40
Asphalt - Seal Coat	\$20,967.52	\$280.51	\$2.60	\$283.11
Landscaping - Irrigation System, Replace	\$0.00	\$226.51	\$2.10	\$228.61
Landscaping - Refurbish	\$6,265.36	\$52.64	\$0.49	\$53.13
Mailboxes - Replace	\$0.00	\$113.29	\$1.05	\$114.33
Pond - Dredging and Maintenance, Allowance	\$0.00	\$158.51	\$1.47	\$159.98
Sewer - Laterals, Repairs, Allowance	\$0.00	\$18.23	\$0.17	\$18.40
Signage - Monument, Replace	\$0.00	\$45.10	\$0.41	\$45.51
Site Concrete - Repair or Replace	\$0.00	\$20.88	\$0.19	\$21.07
Site Drainage - Repairs or Regrading, Allowance	\$5,719.30	\$57.60	\$8.11	\$65.71
Walls - Retaining, Block	\$0.00	\$289.45	\$2.68	\$292.13
Sub Total	\$93,489.78	\$2,528.20	\$101.45	\$2,629.65
020 Roofs				
Roofs - Composition Shingle, Replace Ph. 1	\$101,829.49	\$678.10	\$141.18	\$819.28
Roofs - Composition Shingle, Replace Ph. 2	\$0.00	\$2,315.14	\$21.45	\$2,336.59
Sub Total	\$101,829.49	\$2,993.24	\$162.63	\$3,155.87
030 Painting				
Siding and Trim - Repaint, Ph. 1	\$7,822.61	\$266.72	\$12.83	\$279.56
Siding and Trim - Repaint, Ph. 2	\$65,648.61	\$660.18	\$93.09	\$753.27
Sub Total	\$73,471.22	\$926.91	\$105.92	\$1,032.83
040 Fencing & Access Control				
Fencing - Aluminum, Pool	\$0.00	\$39.04	\$0.37	\$39.41
Fencing - Vinyl	\$0.00	\$593.70	\$5.50	\$599.20
Fencing - Wood, Maintenance	\$5,013.74	\$33.13	\$6.95	\$40.07
Sub Total	\$5,013.74	\$665.87	\$12.81	\$678.69
062 Pool				
Pool - Replaster & Tile Replacement	\$0.00	\$103.02	\$0.95	\$103.97
Pool Area - Furniture	\$640.00	\$42.95	\$1.25	\$44.20
Pool Deck - Repaint Overlay	\$1,021.44	\$68.77	\$1.99	\$70.76
Pool Deck - Replace	\$0.00	\$94.12	\$0.88	\$94.99
Trellis - Wood, Patio Cover	\$872.73	\$5.37	\$1.20	\$6.58

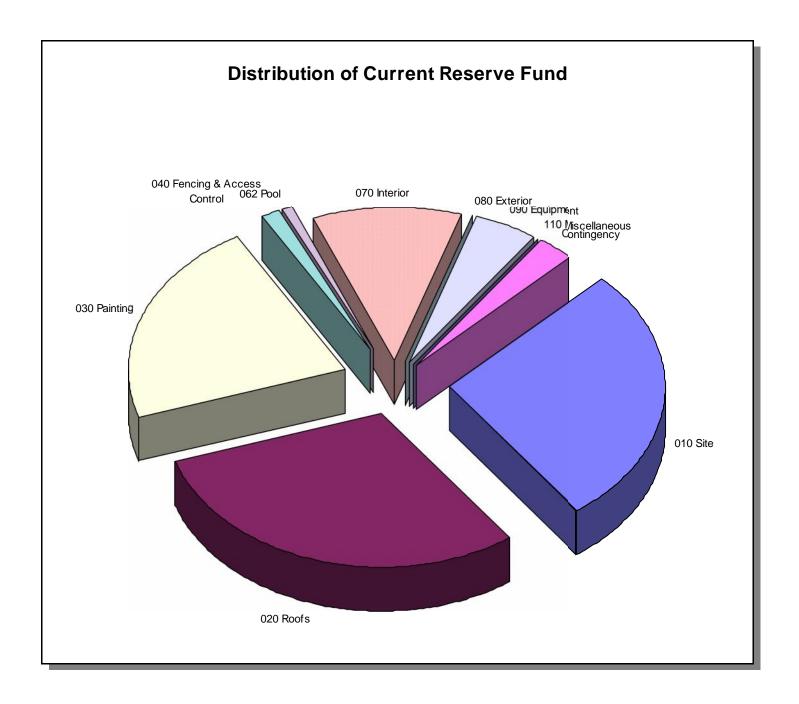
## **Management / Accounting Summary**

**Directed Cash Flow Calculation Method; Sorted by Category** 

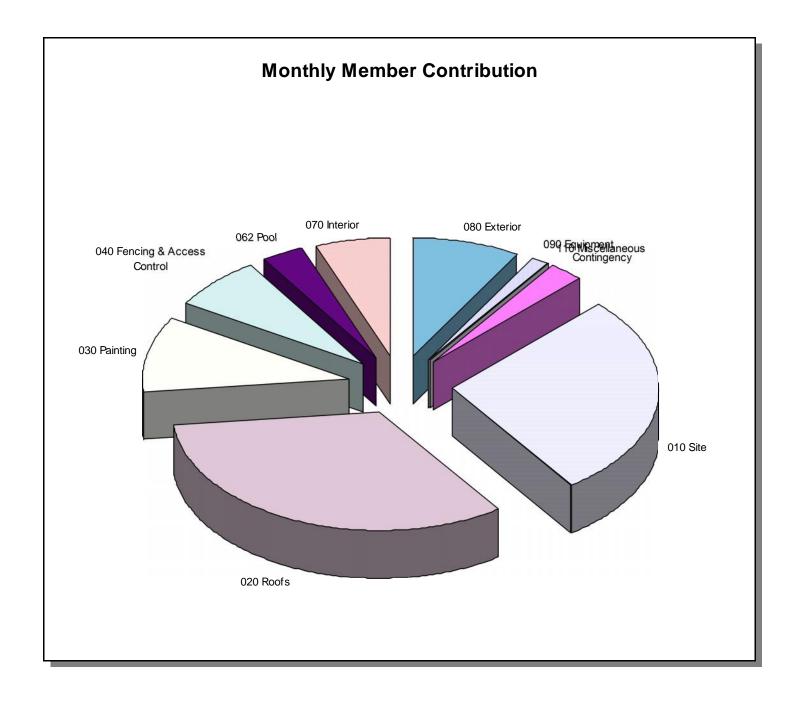
	Balance at Fiscal Year Beginning	Monthly Member Contribution	Monthly Interest Contribution	Total Monthly Contribution
Sub Total	\$2,534.17	\$314.22	\$6.27	\$320.50
070 Interior				
Floor Cover - Carpet	\$7,078.82	\$43.20	\$9.77	\$52.97
Furniture - Clubhouse	\$0.00	\$96.45	\$0.89	\$97.35
Interior Renovation - Gym	\$2,642.17	\$16.19	\$3.65	\$19.83
Interior Renovation - Restrooms	\$10,907.60	\$67.15	\$15.08	\$82.23
Interior Renovation: Kitchen & Club Rms	\$17,654.79	\$208.97	\$25.32	\$234.29
Interior Renovation: Miscellaneous	\$0.00	\$78.25	\$0.72	\$78.97
Sub Total	\$38,283.39	\$510.21	\$55.43	\$565.64
080 Exterior				
Cultured Stone - Clean, Seal, and Point up	\$0.00	\$256.09	\$2.38	\$258.47
Gutters & Downspouts - Replace	\$0.00	\$345.66	\$3.20	\$348.87
Window & Door Replacement, Clubhouse	\$0.00	\$163.31	\$1.51	\$164.83
Sub Total	\$0.00	\$765.07	\$7.09	\$772.16
090 Equipment				
Gym Equipment - Replace	\$8,475.31	\$56.22	\$11.75	\$67.97
HVAC - Split System	\$7,000.00	\$58.82	\$0.55	\$59.36
Sub Total	\$15,475.31	\$115.04	\$12.29	\$127.33
110 Miscellaneous				
EXCLUDED	\$0.00	\$0.00	\$0.00	\$0.00
Sub Total	\$0.00	\$0.00	\$0.00	\$0.00
Contingency	\$9,902.91	\$264.56	\$15.57	\$280.13
Total	\$340,000.00	\$9,083.33	\$479.48	\$9,562.81

## **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**

2020 Fiscal Year	
Asphalt - Repairs	\$7,369.05
Asphalt - Seal Coat	\$20,967.52
HVAC - Split System	\$7,000.00
Landscaping - Refurbish	\$6,265.36
Sub Total	\$41,601.93
2022 Fiscal Year	
Pool Area - Furniture	\$2,017.20
Siding and Trim - Repaint, Ph. 2	\$88,678.37
Sub Total	\$90,695.57
2023 Fiscal Year	
Asphalt - Repairs	\$7,935.66
Fencing - Wood, Maintenance	\$6,871.77
Floor Cover - Carpet	\$9,528.89
Site Drainage - Repairs or Regrading, Allowance	\$8,798.66
Sub Total	\$33,134.99
2024 Fiscal Year	
Pool Deck - Repaint Overlay	\$5,637.39
Sub Total	\$5,637.39
2025 Fiscal Year	
Asphalt - Seal Coat	\$23,722.82
Furniture - Clubhouse	\$8,156.89
Pool Area - Furniture	\$2,172.30
Sub Total	\$34,052.02
2026 Fiscal Year	
Asphalt - Repairs	\$8,545.84
Gym Equipment - Replace	\$15,189.90
Interior Renovation - Gym	\$4,596.17
Sub Total	\$28,331.90
2027 Fiscal Year	
Siding and Trim - Repaint, Ph. 1	\$41,843.83
Sub Total	\$41,843.83
2028 Fiscal Year	
Asphalt - Repaving, 1.5" Overlay, Ph. 1	\$107,967.85

## **Annual Expenditure Detail**

Fencing - Wood, Maintenance	\$7,774.78
HVAC - Split System	\$8,528.82
Landscaping - Refurbish	\$7,633.74
Pool Area - Furniture	\$2,339.33
Sub Total	\$134,244.51
2029 Fiscal Year	
Asphalt - Repairs	\$9,202.94
Pool Deck - Repaint Overlay	\$6,378.19
Roofs - Composition Shingle, Replace Ph. 1	\$231,220.14
Sub Total	\$246,801.26
	,
2030 Fiscal Year	
Asphalt - Seal Coat	\$26,840.20
Furniture - Clubhouse	\$9,228.77
Interior Renovation - Restrooms	\$25,598.20
Interior Renovation: Kitchen & Club Rms	\$60,468.92
Trellis - Wood, Patio Cover	\$2,048.14
Sub Total	\$124,184.21
2031 Fiscal Year	
Pool - Replaster & Tile Replacement	\$22,014.75
Pool Area - Furniture	\$2,519.21
Siding and Trim - Repaint, Ph. 2	\$110,747.13
Site Concrete - Repair or Replace	\$4,461.09
Sub Total	\$139,742.19
2032 Fiscal Year	
Asphalt - Repairs	\$9,910.55
Signage - Monument, Replace	\$10,759.11
Sub Total	\$20,669.67
2033 Fiscal Year	
Fencing - Aluminum, Pool	\$10,327.25
Fencing - Wood, Maintenance	\$8,796.44
Interior Renovation: Miscellaneous	\$20,697.76
Pond - Dredging and Maintenance, Allowance	\$41,928.26
Roofs - Composition Shingle, Replace Ph. 2	\$612,407.16
Site Drainage - Repairs or Regrading, Allowance	\$11,263.03
Sub Total	\$705,419.92
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## **Annual Expenditure Detail**

2034 Fiscal Year	
Asphalt - Repaving, 1.5" Overlay, Ph. 2	\$226,010.93
Mailboxes - Replace	\$33,028.26
Pool Area - Furniture	\$2,712.91
Pool Deck - Repaint Overlay	\$7,216.34
Sub Total	\$268,968.44
2035 Fiscal Year	
Asphalt - Repairs	\$10,672.58
Asphalt - Seal Coat	\$30,367.22
Furniture - Clubhouse	\$10,441.51
Landscaping - Irrigation System, Replace	\$72,414.91
Sub Total	\$123,896.22
2036 Fiscal Year	
HVAC - Split System	\$10,391.54
Landscaping - Refurbish	\$9,300.97
Siding and Trim - Repaint, Ph. 1	\$52,257.21
Sub Total	\$71,949.72
2037 Fiscal Year	
Pool Area - Furniture	\$2,921.51
Sub Total	\$2,921.51
2038 Fiscal Year	
Asphalt - Repairs	\$11,493.20
Fencing - Vinyl	\$244,193.08
Fencing - Wood, Maintenance	\$9,952.37
Floor Cover - Carpet	\$13,800.68
Gym Equipment - Replace	\$20,428.72
Window & Door Replacement, Clubhouse	\$67,172.36
Sub Total	\$367,040.42
2039 Fiscal Year	
Pool Deck - Repaint Overlay	\$8,164.63
Site Concrete - Repair or Replace	\$5,435.41
Sub Total	\$13,600.04
2040 Fiscal Year	
Asphalt - Seal Coat	\$34,357.72
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## **Annual Expenditure Detail**

Pool Area - Furniture	\$3,146.14
Siding and Trim - Repaint, Ph. 2	\$138,307.99
Walls - Retaining, Block	\$138,574.49
Sub Total	\$326,199.95
2041 Fiscal Year	
Asphalt - Repairs	\$12,376.92
Sub Total	\$12,376.92
2043 Fiscal Year	
Cultured Stone - Clean, Seal, and Point up	\$151,199.49
Fencing - Wood, Maintenance	\$11,260.19
Gutters & Downspouts - Replace	\$204,082.44
Pool - Replaster & Tile Replacement	\$29,607.40
Pool Area - Furniture	\$3,388.05
Site Drainage - Repairs or Regrading, Allowance	\$14,417.63
Sub Total	\$413,955.21
2044 Fiscal Year	
Asphalt - Repairs	\$13,328.59
HVAC - Split System	\$12,661.08
Interior Renovation - Gym	\$7,168.45
Landscaping - Refurbish	\$11,332.33
Pool Deck - Repaint Overlay	\$9,237.53
Pool Deck - Replace	\$59,351.10
Sub Total	\$113,079.08
2045 Fiscal Year	
Asphalt - Seal Coat	\$38,872.61
Furniture - Clubhouse	\$13,366.01
Siding and Trim - Repaint, Ph. 1	\$65,262.10
Sub Total	\$117,500.72
2046 Fiscal Year	
Pool Area - Furniture	\$3,648.56
Sub Total	\$3,648.56
2047 Fiscal Year	
Asphalt - Repairs	\$14,353.44
Site Concrete - Repair or Replace	\$6,622.52

## **Annual Expenditure Detail**

Sub Total	\$20,975.96	
2048 Fiscal Year		
Asphalt - Repaving, 1.5" Overlay, Ph. 1	\$176,917.89	
Fencing - Wood, Maintenance	\$12,739.87	
Sewer - Laterals, Repairs, Allowance	\$14,721.20	
Sub Total	\$204,378.96	
2049 Fiscal Year		
Pool Area - Furniture	\$3,929.10	
Pool Deck - Repaint Overlay	\$10,451.41	
Roofs - Composition Shingle, Replace Ph. 1	\$378,881.11	
Siding and Trim - Repaint, Ph. 2	\$172,727.73	
Sub Total	\$565,989.36	

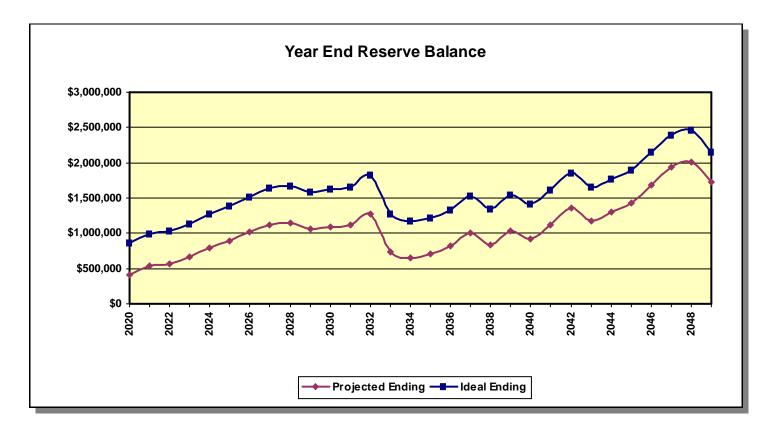
### **Projections**

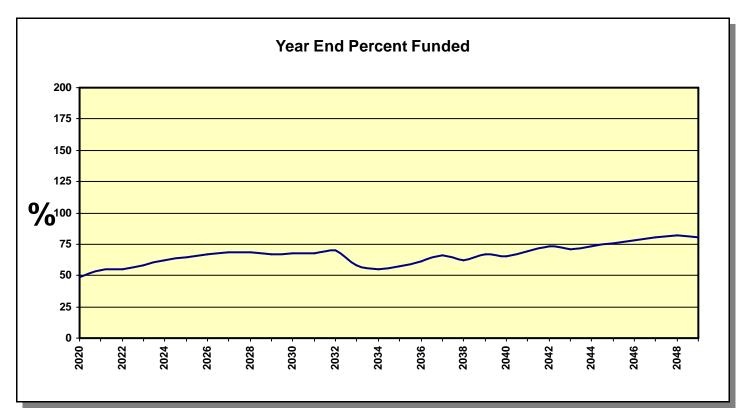
### **Directed Cash Flow Calculation Method**

Fiscal Year	Beginning Balance	Member Contribution	Interest Contribution	Expenditures	Ending Balance	Fully Funded Ending Balance	Percent Funded
2020	\$340,000	\$109,000	\$5,754	\$41,602	\$413,152	\$856,714	48%
2021	\$413,152	\$112,270	\$7,675	\$0	\$533,096	\$986,273	54%
2022	\$533,096	\$115,638	\$8,183	\$90,696	\$566,222	\$1,026,023	55%
2023	\$566,222	\$119,107	\$9,708	\$33,135	\$661,903	\$1,131,240	59%
2024	\$661,903	\$122,680	\$11,770	\$5,637	\$790,716	\$1,270,982	62%
2025	\$790,716	\$126,361	\$13,457	\$34,052	\$896,482	\$1,387,154	65%
2026	\$896,482	\$130,152	\$15,328	\$28,332	\$1,013,630	\$1,515,671	67%
2027	\$1,013,630	\$134,056	\$17,070	\$41,844	\$1,122,912	\$1,636,230	69%
2028	\$1,122,912	\$138,078	\$17,379	\$134,245	\$1,144,125	\$1,665,421	69%
2029	\$1,144,125	\$142,220	\$15,901	\$246,801	\$1,055,445	\$1,579,761	67%
2030	\$1,055,445	\$146,487	\$16,494	\$124,184	\$1,094,242	\$1,624,744	67%
2031	\$1,094,242	\$150,881	\$16,911	\$139,742	\$1,122,292	\$1,658,168	68%
2032	\$1,122,292	\$155,408	\$19,377	\$20,670	\$1,276,407	\$1,821,647	70%
2033	\$1,276,407	\$160,070	\$10,644	\$705,420	\$741,701	\$1,269,884	58%
2034	\$741,701	\$164,872	\$9,056	\$268,968	\$646,661	\$1,168,797	55%
2035	\$646,661	\$169,818	\$9,920	\$123,896	\$702,504	\$1,222,121	57%
2036	\$702,504	\$174,913	\$11,740	\$71,950	\$817,207	\$1,335,493	61%
2037	\$817,207	\$180,160	\$14,816	\$2,922	\$1,009,261	\$1,528,545	66%
2038	\$1,009,261	\$185,565	\$12,013	\$367,040	\$839,799	\$1,346,074	62%
2039	\$839,799	\$191,132	\$15,095	\$13,600	\$1,032,427	\$1,536,357	67%
2040	\$1,032,427	\$196,866	\$13,156	\$326,200	\$916,249	\$1,410,825	65%
2041	\$916,249	\$202,772	\$16,467	\$12,377	\$1,123,111	\$1,617,984	69%
2042	\$1,123,111	\$208,855	\$20,135	\$0	\$1,352,101	\$1,848,014	73%
2043	\$1,352,101	\$215,121	\$17,126	\$413,955	\$1,170,393	\$1,651,501	71%
2044	\$1,170,393	\$221,575	\$19,144	\$113,079	\$1,298,032	\$1,772,582	73%
2045	\$1,298,032	\$228,222	\$21,230	\$117,501	\$1,429,984	\$1,897,002	75%
2046	\$1,429,984	\$235,068	\$25,344	\$3,649	\$1,686,747	\$2,149,836	78%
2047	\$1,686,747	\$242,121	\$29,353	\$20,976	\$1,937,245	\$2,395,929	81%
2048	\$1,937,245	\$249,384	\$30,517	\$204,379	\$2,012,767	\$2,461,019	82%
2049	\$2,012,767	\$256,866	\$25,846	\$565,989	\$1,729,489	\$2,151,490	80%

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.

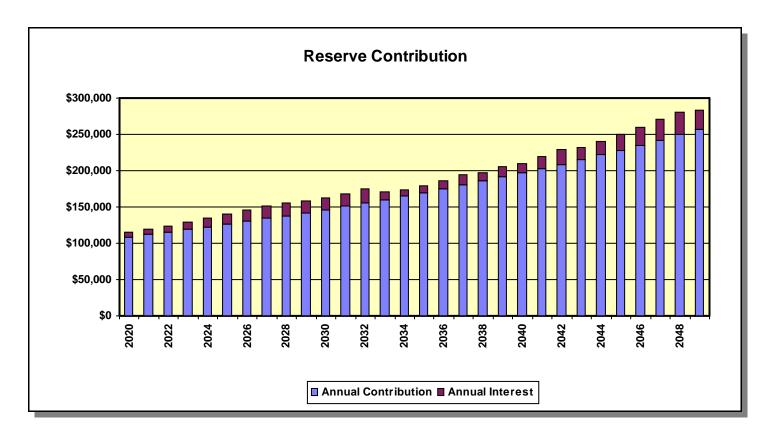
# **Projection Charts Directed Cash Flow Calculation Method**

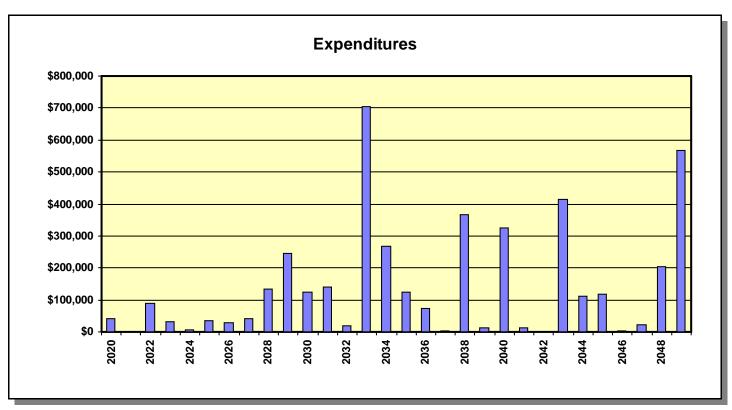




### **Projection Charts**

**Directed Cash Flow Calculation Method** 





### **Component Detail**

Directed Cashflow Calculation Method; Sorted by Category

Asphalt - Repairs	3		
Category	010 Site	Quantity	10,864 sq. yds.
		Unit Cost	\$67.830
		% of Replacement	1.00%
		Current Cost	\$7,369.05
Placed In Service	01/13	Future Cost	\$7,935.66
Useful Life	3		
Adjustment	+4	Assigned Reserves at FYB	\$7,369.05
Remaining Life	0	Monthly Member Contribution	\$163.76
Replacement Year	2020	Monthly Interest Contribution	\$1.52
		<b>Total Monthly Contribution</b>	\$165.28

#### Comments:

As requested, we have included roughly 1/3 of a driveway (a driveway is 3% per client) every 3 years. The placed in service date has been averaged based on 2 or more different dates.

HOA documents indicate that 18' x 18' of driveway in front of the garage is considered a limited common area, and thus the responsibility of the homeowner. Despite this, the study has included these sections of driveway.

Percentage of repairs will increase as the pavement ages. Repairs may be completed in conjunction with seal coating, but it is not necessary. 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.

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. The cost associated with this component is an allowance and is speculation. The actual cost could be significantly higher.

#### **Component Detail**

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

Asphalt - Repavi	ng, 1.5" Overlay, Ph. 1		
Category	010 Site	Quantity	3,873 sq. yds.
		Unit Cost	\$22.880
		% of Replacement	100.00%
		Current Cost	\$88,614.24
Placed In Service	01/08	Future Cost	\$107,967.85
Useful Life	20		
		Assigned Reserves at FYB	\$53,168.54
Remaining Life	8	Monthly Member Contribution	\$326.54
Replacement Year	2028	Monthly Interest Contribution	\$73.46
		<b>Total Monthly Contribution</b>	\$400.00

#### Comments:

The placed in service date has been averaged based on 2 or more different dates.

HOA documents indicate that 18' x 18' of driveway in front of the garage is considered a limited common area, and thus the responsibility of the homeowner. Despite this, the study has included these sections of driveway.

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 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

## **Component Detail**

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

inflation, but can not predict future oil prices.

#### **Component Detail**

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

Asphalt - Repavi	ng, 1.5" Overlay, Ph. 2		_
Category	010 Site	Quantity	6,991 sq. yds.
		Unit Cost	\$22.880
		% of Replacement	100.00%
		Current Cost	\$159,954.08
Placed In Service	01/14	Future Cost	\$226,010.93
Useful Life	20		
		Assigned Reserves at FYB	\$0.00
Remaining Life	14	Monthly Member Contribution	\$775.21
Replacement Year	2034	Monthly Interest Contribution	\$7.19
		<b>Total Monthly Contribution</b>	\$782.40

#### Comments:

The placed in service date has been averaged based on 2 or more different dates.

HOA documents indicate that 18' x 18' of driveway in front of the garage is considered a limited common area, and thus the responsibility of the homeowner. Despite this, the study has included these sections of driveway.

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 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

#### **Component Detail**

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

inflation, but can not predict future oil prices.

Asphalt - Seal Co	oat		
Category	010 Site	Quantity	10,864 sq. yds.
		Unit Cost	\$1.930
		% of Replacement	100.00%
		Current Cost	\$20,967.52
Placed In Service	01/15	Future Cost	\$23,722.82
Useful Life	5		
		Assigned Reserves at FYB	\$20,967.52
Remaining Life	0	Monthly Member Contribution	\$280.51
Replacement Year	2020	Monthly Interest Contribution	\$2.60
		Total Monthly Contribution	\$283.11

#### Comments:

The placed in service date has been averaged based on 2 or more different dates. Seal coating is already wearing off the surface in a number of locations, and seal coat doesn't appear to be have been applied along the edges of the driveways, which will continue to fail sooner than other areas.

HOA documents indicate that 18' x 18' of driveway in front of the garage is considered a limited common area, and thus the responsibility of the homeowner. Despite this, the study has included these sections of driveway.

The primary reason to sealcoat is to protect the pavement from the deteriorating effects of sun and water, which causes the asphalt to harden, or oxidize. The pavement turns brittle. The sealcoat provides a waterproof membrane which slows the oxidation process and helps the pavement shed water, preventing the water to infiltrate the base material.

Without regular applications of a seal coat, an asphalt parking lot might need an overlay in 15 years. If the lot is regularly sealed, a parking lot can last as much as 25-30 years, perhaps longer.

Seal coats should be installed on warm sunny day with low humidity with a minimum of 50 degrees Fahrenheit and rising. The seal coat should not be applied during wet conditions or within 8 hours of anticipated rain. Streets must be thoroughly cleaned; organic material removed, loose asphalt removed and voids and cracks repaired. Oil or grease also damage asphalt and such areas should be cleaned thoroughly and treated with an oil spot primer prior to sealer application. A minimum of 8 hours of sunlight is required for complete curing and before traffic is allowed.

Proper drainage is vital for the longevity of the road. Standing water can seep through the asphalt and get into the subbase and subgrade below, significantly weakening the structural integrity of the road and causing premature failure.

Oil spills eat through the asphalt seal and should be cleaned up between seal coats. Power washing is highly recommended. Greying of recently applied sealcoating may indicate poor product, that the outdoor temperature was not warm enough at the time of application, or simply that seal coat was exposed to water before it had cured.

## **Component Detail**

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

Landscaping - Iri	rigation System, Replace		
Category	010 Site	Quantity	1 total
		Unit Cost	\$50,000.000
		% of Replacement	100.00%
		Current Cost	\$50,000.00
Placed In Service	01/10	Future Cost	\$72,414.91
Useful Life	25		
		Assigned Reserves at FYB	\$0.00
Remaining Life	15	Monthly Member Contribution	\$226.51
Replacement Year	2035	Monthly Interest Contribution	\$2.10
		<b>Total Monthly Contribution</b>	\$228.61

#### Comments:

There have been a number of repairs being made on a regular basis, so it is likely that the entire system will need to be replaced in the future. This is an allowance which may be adjusted as the board wishes. Actual cost maybe higher.

Landscaping - R	efurbish		
Category	010 Site	Quantity	1 total
		Unit Cost	\$6,265.363
		% of Replacement	100.00%
		Current Cost	\$6,265.36
Placed In Service	01/10	Future Cost	\$7,633.74
Useful Life	8		
Adjustment	+2	Assigned Reserves at FYB	\$6,265.36
Remaining Life	0	Monthly Member Contribution	\$52.64
Replacement Year	2020	Monthly Interest Contribution	\$0.49
		<b>Total Monthly Contribution</b>	\$53.13

#### Comments:

This is an allowance which may be adjusted as the board wishes. The allowance for repairs will need to increase as time passes.

## **Component Detail**

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

Mailboxes - Repl	ace		
Category	010 Site	Quantity	85 total
		Unit Cost	\$275.000
		% of Replacement	100.00%
		Current Cost	\$23,375.00
Placed In Service	01/13	Future Cost	\$33,028.26
Useful Life	21		
		Assigned Reserves at FYB	\$0.00
Remaining Life	14	Monthly Member Contribution	\$113.29
Replacement Year	2034	Monthly Interest Contribution	\$1.05
		<b>Total Monthly Contribution</b>	\$114.33

#### Comments:

The placed in service date has been averaged based on 2 or more different dates.

### **Component Detail**

Directed Cashflow Calculation Method; Sorted by Category

Pond - Dredging	and Maintenance, Allowance		
Category	010 Site	Quantity	1 allowance
		Unit Cost	\$38,019.522
		% of Replacement	80.00%
		Current Cost	\$30,415.62
Placed In Service	01/08	Future Cost	\$41,928.26
Useful Life	25		
		Assigned Reserves at FYB	\$0.00
Remaining Life	13	Monthly Member Contribution	\$158.51
Replacement Year	2033	Monthly Interest Contribution	\$1.47
		<b>Total Monthly Contribution</b>	\$159.98

#### Comments:

The clients is only responsible for 80% of the pond; the other 20% is the responsibility of neighbors. The cost associated with this component is an allowance and is speculation. The actual cost could be significantly higher.

Concrete pipe include consists of pipe into and out of retention pond only. 20% of total quantity is listed.

83	lin. ft. of concrete pipe (20%)	@	\$138.32	=	\$11,480.56
1	allowance for dredging	@	\$18,000.00	=	\$18,000.00
1	allowance, repair structure	@	\$5,168.32	=	\$5,168.32
1	replacement of trash rack	@	\$3,370.64	=	\$3,370.64
			TOTAL	=	\$38,019.52

An allowance has been provided. Actual cost and schedule of dredging is outside scope of reserve study. For a more accurate schedule and cost, contact your pond maintenance contractor. Any further information provided by contractor can be incorporated into this study.

### **Component Detail**

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

Sewer - Laterals, Repairs, Allowance			
Category	010 Site	Quantity	1 total
		Unit Cost	\$73,735.200
		% of Replacement	10.00%
		Current Cost	\$7,373.52
Placed In Service	01/13	Future Cost	\$14,721.20
Useful Life	10		
Adjustment	+25	Assigned Reserves at FYB	\$0.00
Remaining Life	28	Monthly Member Contribution	\$18.23
Replacement Year	2048	Monthly Interest Contribution	\$0.17
		<b>Total Monthly Contribution</b>	\$18.40

#### Comments:

Homeowners are responsible for their own water service line and sewer lateral up to where lines from their neighbors connect together. Water and sewer mains have been excluded, although we have not examined any public documents to confirm. 23 buildings + clubhouse for 24 laterals.

This is an allowance, actual cost may differ significantlly. 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. The cost associated with this component is an allowance and is speculation. The actual cost could be significantly higher.

The placed in service date has been averaged based on 2 or more different dates.

24 sewer laterals	@	\$3,072.30	=	\$73,735.20
		TOTAL	=	\$73,735.20

### **Component Detail**

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

Signage - Monument, Replace			
Category	010 Site	Quantity	1 allowance
		Unit Cost	\$8,000.000
		% of Replacement	100.00%
		Current Cost	\$8,000.00
Placed In Service	01/08	Future Cost	\$10,759.11
Useful Life	24		
		Assigned Reserves at FYB	\$0.00
Remaining Life	12	Monthly Member Contribution	\$45.10
Replacement Year	2032	Monthly Interest Contribution	\$0.41
		<b>Total Monthly Contribution</b>	\$45.51

#### Comments:

Paint sign, clean and repoint brick as needed. Allowance is for full replacement. Urethane can last a long time, but is brittle and will damage easily.

### **Component Detail**

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

Site Concrete - Repair or Replace			
Category	010 Site	Quantity	85 total
		Unit Cost	\$40.000
		% of Replacement	100.00%
		Current Cost	\$3,400.00
Placed In Service	01/13	Future Cost	\$4,461.09
Useful Life	8		
Adjustment	+10	Assigned Reserves at FYB	\$0.00
Remaining Life	11	Monthly Member Contribution	\$20.88
Replacement Year	2031	Monthly Interest Contribution	\$0.19
		<b>Total Monthly Contribution</b>	\$21.07

#### Comments:

Allowance of \$5/year/unit. The placed in service date has been averaged based on 2 or more different dates.

Includes pathways to units up to homeowner fencing and walkways at clubhouse, but does exclude sidewalks and curb along public streets.

The cost of this allowance is based on the replacement value of a percentage of the total site concrete; however, the actual means of remedying any deficiencies is not limited to simply replacing concrete. Although excluded, the community maybe financially responsible for repairs of sidewalk located along a publicly maintained road,

Concrete repairs are rarely urgent, and many communities can wait extended period of time without having to address concrete issues. One aspect that should be addressed are tripping hazards. Most municipalities allow a maximum of a 1" difference in elevation from the edge of one sidewalk panel to the next. Anything greater constitutes a tripping hazard and should be corrected.

Sidewalk or curb that have shifted more than 1" relative to another section, can be ground down, although the result is not visually appealing. Another option in correcting elevation issues involves pumping either urethane foam or a concrete slurry below the lower panel, forcing it to rise. More expensive is the demolition and replacement of sidewalk or curb, but the new concrete will not match existing concrete.

Spalling occurs when moisture gets into the concrete and the ice expands busting through to the surface. It is common to see the entire surface of a sidewalk panel disintegrate. Pitting is similar to spalling, but looks like you would imagine. Both are common in sidewalk that was over finished, but there can be multiple culprits. Air entrained concrete meant to prevent spalling, may not have been used by the original contractor. There are a number of products designed to patch spalled concrete including polymer-modified cement and epoxy. Surface preparation is critical for overlaying the damaged sidewalk, and if moisture is still present the overlay will fail.

Many minor cracks should simply be left alone or caulked if wide enough.

### **Component Detail**

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

Site Drainage - R	epairs or Regrading, Allowance		
Category	010 Site	Quantity	1 allowance
		Unit Cost	\$8,170.434
		% of Replacement	100.00%
		Current Cost	\$8,170.43
Placed In Service	01/13	Future Cost	\$8,798.66
Useful Life	10		
		Assigned Reserves at FYB	\$5,719.30
Remaining Life	3	Monthly Member Contribution	\$57.60
Replacement Year	2023	Monthly Interest Contribution	\$8.11
		<b>Total Monthly Contribution</b>	\$65.71

#### Comments:

Cost covers potential repairs to downspout extensions, underground pipe that pickup downspout runoff, and to correct grade and drainage issues. Underground pipe is frequently a single wall polyethylene pipe, which is quite fragile and easily damaged inadvertantly by lawn equipment or parked cars.

This is an allowance, actual cost may differ significantly. 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.

## **Component Detail**

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

Walls - Retaining, Block			
Category	010 Site	Quantity	1 total
		Unit Cost	\$845,679.840
		% of Replacement	10.00%
		Current Cost	\$84,567.98
Placed In Service	01/08	Future Cost	\$138,574.49
Useful Life	15		
Adjustment	+17	Assigned Reserves at FYB	\$0.00
Remaining Life	20	Monthly Member Contribution	\$289.45
Replacement Year	2040	Monthly Interest Contribution	\$2.68
		<b>Total Monthly Contribution</b>	\$292.13

#### Comments:

Block veneer walls located at some of the driveways.

18,696 sq. ft. of segmental block @ \$42.94 = \$802,806.24 924 sq. ft. of block w/ veneer @ \$46.40 = \$42,873.60 TOTAL = \$845,679.84

### **Component Detail**

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

Roofs - Composi	tion Shingle, Replace Ph. 1		
Category	020 Roofs	Quantity	75,262 sq. ft.
		Unit Cost	\$2.460
		% of Replacement	100.00%
		Current Cost	\$185,144.52
Placed In Service	01/09	Future Cost	\$231,220.14
Useful Life	20		
		Assigned Reserves at FYB	\$101,829.49
Remaining Life	9	Monthly Member Contribution	\$678.10
Replacement Year	2029	Monthly Interest Contribution	\$141.18
		<b>Total Monthly Contribution</b>	\$819.28

#### Comments:

Some minor issues associated with shingles not laying properly were found. Some shingles don't appear to extend far enough into gutter, which may indicate a potential water intrusion issue. Another potential issue was noted, but a need for intervention could not be determined. Please photo. Please consult an expert in water intrusion should be consulted if there is a concern. Roof appears to be aging appropriately. Limited visual access prevented investigation of likely problem areas like the ridge line, valleys, and flashing.

Includes clubhouse.

6 buildings	71,052	sq. ft.
club house	4,210	sq. ft.
	75,262	sq. ft.

Asphalt shingles contain granules which reflect the sunlight. Over time shingles lose these granules leaving the asphalt vulnerable to the sun and oxidation. Shingles will begin to dry up and lose plasticity evidenced by growing gaps between shingle tabs. Edge will curl and lift. Valleys tend to see greater granule loss due to increased water erosion.

The installation process should begin with proper fall protection. Old shingles are slippery; underlayment is notoriously slippery. Falls involve not only people, but tools and materials. Areas below work should be properly cordoned off. Demolition should include removal of old underlayment and rubber flashing. The roof should be thoroughly inspected, especially at likely problem areas. Any existing roofing nails should be removed. Sheathing should be flush. New underlayment should be installed taut to the sheathing. Roofing shingles are very frequently loaded at the peak of the roof, sometimes referred to as "breaking the bundle". This is a very poor practice, since the shingles are left bent for sometimes extended time. Even short periods of time can result in stress fractures and separations of the shingle laminates, reducing the lifespan of the shingle.

It is always advisable to tear-off an old roof and apply a new roof, rather than simply reroofing over an existing. While initially cheaper, the life expectancy of a 2 layer roof is significantly shorter, 10 - 15 years because the roof is not as efficient in cooling and because the flashing and underlayment is not replaced. Performing a tear-off also allows inspection of the sheathing or substrate. Over time, a 2 layer shingle roof is actually more expensive. Additionally, there are numerous roofs that aren't structurally sound enough to carry the additional and unnecessary weight. Lastly, shingles may not lay flat affecting the appearance.

Leaks typically occur at penetrations of the roof (common examples include chimneys, plumbing vent stacks, and exhaust fans), intersections of wall and roof, and where 2 different planes of roof meet (such as valleys). Additionally, shingles

### **Component Detail**

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

along the gable ridge are bent typically at acute angles and are much more likely to tear than at other locations where shingles typically lay flat. Rubber flashing is most commonly used for pipe penetrations. Rubber flashing will eventually dry out and crack. During a reroofing process all pipe boots should be replaced. Although more expensive, lead flashing should be considered as this should never leak or deteriorate if installed properly. Drip edge flashing, installed along the rake and fascia edges of the roof, should be installed prior to shingle installation.

Never paint or coat a roof to change the color unless approved by the manufacturer. Keep roof surfaces and gutters clean using a leaf blower on low setting or soft-bristle broom so water will drain quickly and freely. The acidity that is created as the leaves rot will shorten the life of the roofing under it. Never allow water from a downspout to pour directly onto a roof below. Keep trees trimmed so they don't rub against the roof or any other building surface. Climbing plants should not reach the roof. Remove snow or ice carefully to prevent damage to the roof. Never climb onto a wet or snow covered roof. Walking on the roof should be kept to a minimum to limit liability and to preserve the roof granules. Antennas, satellite dishes, or anchors should be noncorrosive to prevent staining. Never pressure wash the roof. Each treatment will take three years off the life of the roof.

Attic ventilation is extremely important, but not something that can be inspected during a reserve study. Home inspections performed prior to a unit being purchased will be able to provide the best evidence of ventilation conditions. Ventilation items occurring on multiple inspections may be a good indicator of a community wide problem. Ventilation prevents the warm moist air from settling against the roof rafters and underside of sheathing, which will cause rot. Proper ventilation keeps the attic plenum cool in the summer preserving the useful life of shingles. In the winter, ventilation removes the heat that has escaped past the insulation from the building, keeping the roof cool. A warm roof under snow can cause ice dams, a buildup of water that has nowhere to go except under shingles and into the sheathing and structure. Vents are typically installed along the soffit and at the peaks of a building in the form of continuous ridge vent or louvers at top of the gable sides. It is beyond the scope of a reserve study to test the adequacy of ventilation, but most experts agree that continuous ridge vents are superior. The open vent area at the peak of a roof should equal the area of open vents at the soffit. Soffit vents are frequently buried under insulation, which is sometimes visible from the ground.

#### **Component Detail**

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

Roofs - Composi	tion Shingle, Replace Ph. 2		
Category	020 Roofs	Quantity	180,591 sq. ft.
		Unit Cost	\$2.460
		% of Replacement	100.00%
		Current Cost	\$444,252.63
Placed In Service	01/13	Future Cost	\$612,407.16
Useful Life	20		
		Assigned Reserves at FYB	\$0.00
Remaining Life	13	Monthly Member Contribution	\$2,315.14
Replacement Year	2033	Monthly Interest Contribution	\$21.45
		<b>Total Monthly Contribution</b>	\$2,336.59

#### Comments:

Roof appears to be aging appropriately. Limited visual access prevented investigation of likely problem areas like the ridge line, valleys, and flashing.

Asphalt shingles contain granules which reflect the sunlight. Over time shingles lose these granules leaving the asphalt vulnerable to the sun and oxidation. Shingles will begin to dry up and lose plasticity evidenced by growing gaps between shingle tabs. Edge will curl and lift. Valleys tend to see greater granule loss due to increased water erosion.

The installation process should begin with proper fall protection. Old shingles are slippery; underlayment is notoriously slippery. Falls involve not only people, but tools and materials. Areas below work should be properly cordoned off. Demolition should include removal of old underlayment and rubber flashing. The roof should be thoroughly inspected, especially at likely problem areas. Any existing roofing nails should be removed. Sheathing should be flush. New underlayment should be installed taut to the sheathing. Roofing shingles are very frequently loaded at the peak of the roof, sometimes referred to as "breaking the bundle". This is a very poor practice, since the shingles are left bent for sometimes extended time. Even short periods of time can result in stress fractures and separations of the shingle laminates, reducing the lifespan of the shingle.

It is always advisable to tear-off an old roof and apply a new roof, rather than simply reroofing over an existing. While initially cheaper, the life expectancy of a 2 layer roof is significantly shorter, 10 - 15 years because the roof is not as efficient in cooling and because the flashing and underlayment is not replaced. Performing a tear-off also allows inspection of the sheathing or substrate. Over time, a 2 layer shingle roof is actually more expensive. Additionally, there are numerous roofs that aren't structurally sound enough to carry the additional and unnecessary weight. Lastly, shingles may not lay flat affecting the appearance.

Leaks typically occur at penetrations of the roof (common examples include chimneys, plumbing vent stacks, and exhaust fans), intersections of wall and roof, and where 2 different planes of roof meet (such as valleys). Additionally, shingles along the gable ridge are bent typically at acute angles and are much more likely to tear than at other locations where shingles typically lay flat. Rubber flashing is most commonly used for pipe penetrations. Rubber flashing will eventually dry out and crack. During a reroofing process all pipe boots should be replaced. Although more expensive, lead flashing should be considered as this should never leak or deteriorate if installed properly. Drip edge flashing, installed along the rake and fascia edges of the roof, should be installed prior to shingle installation.

Never paint or coat a roof to change the color unless approved by the manufacturer. Keep roof surfaces and gutters clean using a leaf blower on low setting or soft-bristle broom so water will drain quickly and freely. The acidity that is created as the leaves rot will shorten the life of the roofing under it. Never allow water from a downspout to pour directly

### **Component Detail**

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

onto a roof below. Keep trees trimmed so they don't rub against the roof or any other building surface. Climbing plants should not reach the roof. Remove snow or ice carefully to prevent damage to the roof. Never climb onto a wet or snow covered roof. Walking on the roof should be kept to a minimum to limit liability and to preserve the roof granules. Antennas, satellite dishes, or anchors should be noncorrosive to prevent staining. Never pressure wash the roof. Each treatment will take three years off the life of the roof.

Attic ventilation is extremely important, but not something that can be inspected during a reserve study. Home inspections performed prior to a unit being purchased will be able to provide the best evidence of ventilation conditions. Ventilation items occurring on multiple inspections may be a good indicator of a community wide problem. Ventilation prevents the warm moist air from settling against the roof rafters and underside of sheathing, which will cause rot. Proper ventilation keeps the attic plenum cool in the summer preserving the useful life of shingles. In the winter, ventilation removes the heat that has escaped past the insulation from the building, keeping the roof cool. A warm roof under snow can cause ice dams, a buildup of water that has nowhere to go except under shingles and into the sheathing and structure. Vents are typically installed along the soffit and at the peaks of a building in the form of continuous ridge vent or louvers at top of the gable sides. It is beyond the scope of a reserve study to test the adequacy of ventilation, but most experts agree that continuous ridge vents are superior. The open vent area at the peak of a roof should equal the area of open vents at the soffit. Soffit vents are frequently buried under insulation, which is sometimes visible from the ground.

### **Component Detail**

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

Siding and Trim	- Repaint, Ph. 1		
Category	030 Painting	Quantity	1 total
	-	Unit Cost	\$35,201.760
		% of Replacement	100.00%
		Current Cost	\$35,201.76
Placed In Service	01/18	Future Cost	\$41,843.83
Useful Life	9		
		Assigned Reserves at FYB	\$7,822.61
Remaining Life	7	Monthly Member Contribution	\$266.72
Replacement Year	2027	Monthly Interest Contribution	\$12.83
		<b>Total Monthly Contribution</b>	\$279.56

#### Comments:

The siding and paint is in good condition. Cost includes minimal prep. As building ages, prep costs will increase. If possible coordinate with gutter and downspout replacement or repairs.

29,388	sq. ft. of powerwashing, condos	@	\$0.13	=	\$3,820.44
29,388	sq. ft. 1 coat, siding & trim, condos	@	\$1.00	=	\$29,388.00
1,764	sq. ft. of powerwashing, clubhouse	@	\$0.13	=	\$229.32
1,764	sq. ft. 1 coat, siding & trim, clubhouse	@	\$1.00	=	\$1,764.00
			TOTAL	=	\$35,201,76

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** 

Siding and Trim	- Repaint, Ph. 2		
Category	030 Painting	Quantity	1 total
		Unit Cost	\$84,405.350
		% of Replacement	100.00%
		Current Cost	\$84,405.35
Placed In Service	01/13	Future Cost	\$88,678.37
Useful Life	9		
		Assigned Reserves at FYB	\$65,648.61
Remaining Life	2	Monthly Member Contribution	\$660.18
Replacement Year	2022	Monthly Interest Contribution	\$93.09
		<b>Total Monthly Contribution</b>	\$753.27

#### Comments:

The siding and paint is in good condition. Cost includes minimal prep. As building ages, prep costs will increase. If possible coordinate with gutter and downspout replacement or repairs.

74,695 sq. ft. of powerwashing	@	\$0.13	=	\$9,710.35
74,695 sq. ft. 1 coat, siding & to	rim @	\$1.00	=	\$74,695.00
		TOTAL	=	\$84 405 35

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## **Component Detail**

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

Fencing - Alumin	num, Pool		
Category	040 Fencing & Access Control	Quantity	1 total
		Unit Cost	\$7,491.600
		% of Replacement	100.00%
		Current Cost	\$7,491.60
Placed In Service	01/08	Future Cost	\$10,327.25
Useful Life	25		
		Assigned Reserves at FYB	\$0.00
Remaining Life	13	Monthly Member Contribution	\$39.04
Replacement Year	2033	Monthly Interest Contribution	\$0.37
		<b>Total Monthly Contribution</b>	\$39.41

#### Comments:

Cost is for full replacement, not repainting of fencing.

174 lin. ft. 4.5' high fencing @ \$36.13 = \$6,286.62 3 gate, 4.5' high @ \$401.66 = \$1,204.98 TOTAL = \$7,491.60

### **Component Detail**

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

Fencing - Vinyl			
Category	040 Fencing & Access Control	Quantity	1 total
		Unit Cost	\$156,568.280
		% of Replacement	100.00%
		Current Cost	\$156,568.28
Placed In Service	01/13	Future Cost	\$244,193.08
Useful Life	25		
		Assigned Reserves at FYB	\$0.00
Remaining Life	18	Monthly Member Contribution	\$593.70
Replacement Year	2038	Monthly Interest Contribution	\$5.50
		<b>Total Monthly Contribution</b>	\$599.20

#### Comments:

Homeowner fencing has not been included. Placed in service date has been averaged.

542	lin. ft. of vinyl 3 rail fence @ retaining walls	@	\$29.38	=	\$15,923.96
856	lin. ft. of 6' solid board fence, privacy	@	\$74.58	=	\$63,803.19
116	lin. ft. solid board gate(s), 6' high	@	\$122.04	=	\$14,156.64
1,353	lin. ft. of 3' picket fence	@	\$46.33	=	\$62,684.49
205	lin. ft. picket gate(s), 3' high	@	\$110.74	=	\$22,701.70
			TOTAL	=	\$179,269.98

## **Component Detail**

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

Fencing - Wood,	Maintenance		
Category	040 Fencing & Access Control	Quantity	1 total
		Unit Cost	\$6,381.120
		% of Replacement	100.00%
		Current Cost	\$6,381.12
Placed In Service	01/09	Future Cost	\$6,871.77
Useful Life	5		
Adjustment	+9	Assigned Reserves at FYB	\$5,013.74
Remaining Life	3	Monthly Member Contribution	\$33.13
Replacement Year	2023	Monthly Interest Contribution	\$6.95
		<b>Total Monthly Contribution</b>	\$40.07

#### Comments:

Cost include painting of only 1 side of fencing. There should be a minimum 1" air gap between the ground and bottom of fencing.

Revision: With removal of painting/staining of split rail fencing, the percent replacement may need to be increased.

134	lin. ft. of 8' solid board fence, paint	@	\$10.00	=	\$1,340.00
35	lin. ft. of 8' solid board fence, replace (25%)	@	\$58.76	=	\$2,056.60
132	lin. ft. of 5' split fence, replace (25%)	@	\$22.61	=	\$2,984.52
			TOTAL	=	\$6,381.12

## **Component Detail**

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

Pool - Replaster	& Tile Replacement		
Category	062 Pool	Quantity	1 pool
		Unit Cost	\$16,778.430
		% of Replacement	100.00%
		Current Cost	\$16,778.43
Placed In Service	01/19	Future Cost	\$22,014.75
Useful Life	12		
		Assigned Reserves at FYB	\$0.00
Remaining Life	11	Monthly Member Contribution	\$103.02
Replacement Year	2031	Monthly Interest Contribution	\$0.95
		<b>Total Monthly Contribution</b>	\$103.97

#### Comments:

Cost assumes full replacement of waterline tile. Pool has been replastered with quartz plaster. Unit costs have been adjusted to reflect recent work that has been performed.

1,473	sq. ft. of replastering	@	\$8.63	=	\$12,711.99
103	lin. ft. of waterline tile	@	\$39.48	=	\$4,066.44
			TOTAL	=	\$16,778.43

Useful life of plaster is directly dependent on quality of maintenance and careful calibration of chemicals. Care should be taken to provide sufficient calcium to pool water to prevent the pool from eating tile grout. Replace any hollow sounding tile at time of replaster.

## **Component Detail**

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

Pool Area - Furn	ture		
Category	062 Pool	Quantity	1 total
		Unit Cost	\$7,680.000
		% of Replacement	25.00%
		Current Cost	\$1,920.00
Placed In Service	01/19	Future Cost	\$2,017.20
Useful Life	3		
		Assigned Reserves at FYB	\$640.00
Remaining Life	2	Monthly Member Contribution	\$42.95
Replacement Year	2022	Monthly Interest Contribution	\$1.25
		<b>Total Monthly Contribution</b>	\$44.20

#### Comments:

Umbrellas will be replaced as needed through the operational budget.

Pool Deck - Repaint Overlay

10	chaise lounges	@	\$204.00	=	\$2,040.00
28	chairs	@	\$141.00	=	\$3,948.00
6	tables	@	\$238.00	=	\$1,428.00
6	umbrellas stand	@	\$44.00	=	\$264.00
			TOTAL	=	\$7,680,00

	·		
Category	062 Pool	Quantity	3,192 sq. ft.
		Unit Cost	\$1.600
		% of Replacement	100.00%
		Current Cost	\$5,107.20
Placed In Service	01/19	Future Cost	\$5,637.39
Useful Life	5		
		Assigned Reserves at FYB	\$1 021 44

Flaced III Service	01/19	Future Cost	\$5,637.39
Useful Life	5		
		Assigned Reserves at FYB	\$1,021.44
Remaining Life	4	Monthly Member Contribution	\$68.77
Replacement Year	2024	Monthly Interest Contribution	\$1.99
		Total Monthly Contribution	\$70.76

#### Comments:

### **Component Detail**

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

Pool Deck - Replace			
Category	062 Pool	Quantity	3,192 sq. ft.
		Unit Cost	\$10.280
		% of Replacement	100.00%
		Current Cost	\$32,813.76
Placed In Service	01/09	Future Cost	\$59,351.10
Useful Life	35		
		Assigned Reserves at FYB	\$0.00
Remaining Life	24	Monthly Member Contribution	\$94.12
Replacement Year	2044	Monthly Interest Contribution	\$0.88
		<b>Total Monthly Contribution</b>	\$94.99

#### Comments:

Lack of coping may cause future issues and even affect the pool shell. Client may wish to consider cutting a control joint around the pool edge to function similar to a coping edge.

The cost of this allowance is based on the replacement value of a percentage of the total site concrete; however, the actual means of remedying any deficiencies is not limited to simply replacing concrete. Although excluded, the community maybe financially responsible for repairs of sidewalk located along a publicly maintained road,

Concrete repairs are rarely urgent, and many communities can wait extended period of time without having to address concrete issues. One aspect that should be addressed are tripping hazards. Most municipalities allow a maximum of a 1" difference in elevation from the edge of one sidewalk panel to the next. Anything greater constitutes a tripping hazard and should be corrected.

Sidewalk or curb that have shifted more than 1" relative to another section, can be ground down, although the result is not visually appealing. Another option in correcting elevation issues involves pumping either urethane foam or a concrete slurry below the lower panel, forcing it to rise. More expensive is the demolition and replacement of sidewalk or curb, but the new concrete will not match existing concrete.

Spalling occurs when moisture gets into the concrete and the ice expands busting through to the surface. It is common to see the entire surface of a sidewalk panel disintegrate. Pitting is similar to spalling, but looks like you would imagine. Both are common in sidewalk that was over finished, but there can be multiple culprits. Air entrained concrete meant to prevent spalling, may not have been used by the original contractor. There are a number of products designed to patch spalled concrete including polymer-modified cement and epoxy. Surface preparation is critical for overlaying the damaged sidewalk, and if moisture is still present the overlay will fail.

Many minor cracks should simply be left alone or caulked if wide enough.

### **Component Detail**

Directed Cashflow Calculation Method; Sorted by Category

Trellis - Wood, P	atio Cover		
Category	062 Pool	Quantity	40 sq. ft.
		Unit Cost	\$40.000
		% of Replacement	100.00%
		Current Cost	\$1,600.00
Placed In Service	01/08	Future Cost	\$2,048.14
Useful Life	22		
		Assigned Reserves at FYB	\$872.73
Remaining Life	10	Monthly Member Contribution	\$5.37
Replacement Year	2030	Monthly Interest Contribution	\$1.20
		Total Monthly Contribution	\$6.58

Comments:

Floor Cover - Carpet			
Category	070 Interior	Quantity	153 sq. yds.
		Unit Cost	\$54.050
		% of Replacement	107.00%
		Current Cost	\$8,848.53
Placed In Service	01/08	Future Cost	\$9,528.89
Useful Life	15		
		Assigned Reserves at FYB	\$7,078.82
Remaining Life	3	Monthly Member Contribution	\$43.20
Replacement Year	2023	Monthly Interest Contribution	\$9.77
		<b>Total Monthly Contribution</b>	\$52.97

Comments:

Cost is for replacement with nylon loop pile carpet.

Follow manufacturer's recommended maintenance schedule. Vacuum frequently, steam clean every 12-18 months. Dry carpet quickly to avoid bacterial growth. Refrain from returning furniture until carpet is completely dry. Dry cleaning carpet uses strong chemicals and may not be the best option.

The measurement indicated represents the actual area to be replaced. The percentage of replacement has been increased above 100% to allow for a waste factor which should be considered when replacing this component.

## **Component Detail**

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

Furniture - Clubhouse			
Category	070 Interior	Quantity	1 total
		Unit Cost	\$28,838.000
		% of Replacement	25.00%
		Current Cost	\$7,209.50
Placed In Service	01/20	Future Cost	\$8,156.89
Useful Life	5		
		Assigned Reserves at FYB	\$0.00
Remaining Life	5	Monthly Member Contribution	\$96.45
Replacement Year	2025	Monthly Interest Contribution	\$0.89
		<b>Total Monthly Contribution</b>	\$97.35

#### Comments:

Schedule for replacement is influenced by aesthetics and can vary significantly between communities or board member's opinions.

2	side table(s)	@	\$800.00	=	\$1,600.00
6	arm chair(s)	@	\$536.00	=	\$3,216.00
2	upholstered chair(s)	@	\$700.00	=	\$1,400.00
12	side chair(s)	@	\$500.00	=	\$6,000.00
1	sofa(s), leather	@	\$3,082.00	=	\$3,082.00
2	television(s)	@	\$800.00	=	\$1,600.00
3	table(s)	@	\$1,000.00	=	\$3,000.00
1	pool table (unfunded)	@	\$0.00	=	\$0.00
56	sq. ft. book shelves	@	\$40.00	=	\$2,240.00
70	folding chair(s)	@	\$50.00	=	\$3,500.00
6	folding table(s)	@	\$100.00	=	\$600.00
130	sq. ft. of area rug	@	\$20.00	=	\$2,600.00
			TOTAL	=	\$28,838.00

## **Component Detail**

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

Interior Renovati	on - Gym		
Category	070 Interior	Quantity	1 total
		Unit Cost	\$3,963.260
		% of Replacement	100.00%
		Current Cost	\$3,963.26
Placed In Service	01/08	Future Cost	\$4,596.17
Useful Life	18		
		Assigned Reserves at FYB	\$2,642.17
Remaining Life	6	Monthly Member Contribution	\$16.19
Replacement Year	2026	Monthly Interest Contribution	\$3.65
		<b>Total Monthly Contribution</b>	\$19.83

#### Comments:

Schedule for replacement is influenced by aesthetics and can vary significantly between communities or board member's opinions.

952	sq. ft. of painting, walls	@	\$1.37	=	\$1,304.24
351	sq. ft. of painting, ceilings	@	\$1.57	=	\$551.07
39	sq. yds. of carpet	@	\$54.05	=	\$2,107.95
			TOTAL	=	\$3.963.26

## **Component Detail**

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

Interior Renovati	on - Restrooms		
Category	070 Interior	Quantity	1 total
		Unit Cost	\$19,997.270
		% of Replacement	100.00%
		Current Cost	\$19,997.27
Placed In Service	01/08	Future Cost	\$25,598.20
Useful Life	22		
		Assigned Reserves at FYB	\$10,907.60
Remaining Life	10	Monthly Member Contribution	\$67.15
Replacement Year	2030	Monthly Interest Contribution	\$15.08
		<b>Total Monthly Contribution</b>	\$82.23

#### Comments:

Schedule for replacement is influenced by aesthetics and can vary significantly between communities or board member's opinions. If client currently has painted wood, we are recommending a laminate material, which is similar in price, but more contemporary. Unless noted, any "granite" stone counters listed are assumed to be cultured quartz, not granite.

936	sq. ft. of painting, walls	@	\$1.37	=	\$1,282.32
285	sq. ft. of painting, ceilings	@	\$1.57	=	\$447.45
405	sq. ft. of ceramic tile	@	\$20.55	=	\$8,322.75
4	toilet(s), tank type	@	\$561.20	=	\$2,244.80
1	urinal(s), wall mount unit	@	\$756.00	=	\$756.00
2	rimmed counter sink(s) w/ faucet	@	\$990.15	=	\$1,980.30
6	lin. ft. cultured granite C-top	@	\$391.00	=	\$2,346.00
3	baked enamel toilet stall(s)	@	\$781.65	=	\$2,344.95
1	baked enamel urinal stall(s)	@	\$272.70	=	\$272.70
			TOTAL	=	\$19,997.27

## **Component Detail**

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

Interior Renovati	on: Kitchen & Club Rms		
Category	070 Interior	Quantity	1 total
		Unit Cost	\$47,238.220
		% of Replacement	100.00%
		Current Cost	\$47,238.22
Placed In Service	01/08	Future Cost	\$60,468.92
Useful Life	22		
		Assigned Reserves at FYB	\$17,654.79
Remaining Life	10	Monthly Member Contribution	\$208.97
Replacement Year	2030	Monthly Interest Contribution	\$25.32
		<b>Total Monthly Contribution</b>	\$234.29

#### Comments:

Schedule for replacement is influenced by aesthetics and can vary significantly between communities or board member's opinions. If countertop is granite and not quartz, it should be sealed annually to prevent oil, water, alcohol, etc. stains. Painting may need to be performed in between renovations.

Credenza furniture not included due to long life.

2,400	sq. ft. of painting, walls	@	\$1.37	=	\$3,288.00
1,471	sq. ft. of painting, ceilings	@	\$1.57	=	\$2,309.47
1	hot water heater	@	\$1,500.00	=	\$1,500.00
1	allowance lighting	@	\$5,500.00	=	\$5,500.00
652	sq. ft. of wood flooring	@	\$20.55	=	\$13,398.60
12	sq. ft. of ceramic tile	@	\$20.55	=	\$246.60
16	lin. ft. of wood base cabinets	@	\$215.05	=	\$3,440.80
10	lin. ft. of wood wall cabinets	@	\$192.05	=	\$1,920.50
26	lin. ft. cult. granite C-top	@	\$391.00	=	\$10,166.00
1	refrigerator	@	\$1,859.55	=	\$1,859.55
1	oven/ range combo	@	\$867.10	=	\$867.10
1	dishwasher	@	\$645.15	=	\$645.15
1	microwave	@	\$606.05	=	\$606.05
1	stainless kitchen sink w/ faucet	@	\$1,490.40	=	\$1,490.40
			TOTAL	=	\$47,238.22

## **Component Detail**

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

Interior Renovati	on: Miscellaneous		
Category	070 Interior	Quantity	1 total
		Unit Cost	\$15,014.580
		% of Replacement	100.00%
		Current Cost	\$15,014.58
Placed In Service	01/08	Future Cost	\$20,697.76
Useful Life	25		
		Assigned Reserves at FYB	\$0.00
Remaining Life	13	Monthly Member Contribution	\$78.25
Replacement Year	2033	Monthly Interest Contribution	\$0.72
		<b>Total Monthly Contribution</b>	\$78.97

#### Comments:

This includes the lobby, hallway, and storage/office rooms. Schedule for replacement is influenced by aesthetics and can vary significantly between communities or board member's opinions.

2,202	sq. ft. of painting, walls	@	\$1.37	=	\$3,016.74
432	sq. ft. of painting, ceilings	@	\$1.57	=	\$678.24
432	sq. ft. of ceramic tile	@	\$20.55	=	\$8,877.60
888	sq. ft. wall paper, add	@	\$2.75	=	\$2,442.00
			TOTAL	=	\$15 014 58

#### **Component Detail**

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

<b>Cultured Stone -</b>	Clean, Seal, and Point up		
Category	080 Exterior	Quantity	1 total
		Unit Cost	\$85,684.335
		% of Replacement	100.00%
		Current Cost	\$85,684.34
Placed In Service	01/13	Future Cost	\$151,199.49
Useful Life	30		
		Assigned Reserves at FYB	\$0.00
Remaining Life	23	Monthly Member Contribution	\$256.09
Replacement Year	2043	Monthly Interest Contribution	\$2.38
		<b>Total Monthly Contribution</b>	\$258.47

#### 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.

The placed in service date has been averaged based on 2 or more different dates.

51,425	sq. ft. of cleaning	@	\$0.72	=	\$37,190.56
5,143	sq. ft. of mortar and stone point up	@	\$9.43	=	\$48,493.78
	(10%)				
			TOTAL	=	\$85,684.34

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

### **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.

Gutters & Downs	spouts - Replace		
Category	080 Exterior	Quantity	1 total
		Unit Cost	\$115,652.958
		% of Replacement	100.00%
		Current Cost	\$115,652.96
Placed In Service	01/13	Future Cost	\$204,082.44
Useful Life	30		
		Assigned Reserves at FYB	\$0.00
Remaining Life	23	Monthly Member Contribution	\$345.66
Replacement Year	2043	Monthly Interest Contribution	\$3.20
		<b>Total Monthly Contribution</b>	\$348.87

#### Comments:

Some locations have a considerable amount of the roof draining into a small section of gutter. These locations should be monitored during rain events to determine the adequacy of this design and to ensure no moisture penetration.

If possible, coordinate full replacement with vinyl siding replacement or painting. The placed in service date has been averaged based on 2 or more different dates.

6,200 lin. ft. aluminum gutter	@	\$9.94	=	\$61,652.80
4,755 lin. ft. aluminum downspout	@	\$11.36	=	\$54,000.16
		TOTAL	_	\$115,652,96

Debris should be cleaned from gutters and downspouts frequently, especially in the spring and fall. In colder climates, clogged gutters with water will freeze. Strainers are available for downspouts to prevent debris being caught. There are several options to prevent debris from entering the gutter, all of which are relatively expensive. Replace or repair sagging or broken straps. Fill small holes epoxy resin and larger holds with adhesive back aluminum tape. Leaking joints can be sealed with silicone caulk.

### **Component Detail**

Directed Cashflow Calculation Method; Sorted by Category

Window & Door I	Replacement, Clubhouse		
Category	080 Exterior	Quantity	1 total
		Unit Cost	\$43,068.630
		% of Replacement	100.00%
		Current Cost	\$43,068.63
Placed In Service	01/08	Future Cost	\$67,172.36
Useful Life	30		
		Assigned Reserves at FYB	\$0.00
Remaining Life	18	Monthly Member Contribution	\$163.31
Replacement Year	2038	Monthly Interest Contribution	\$1.51
		<b>Total Monthly Contribution</b>	\$164.83
		Total Monthly Contribution	\$104.8

#### Comments:

486	sq. ft. vinyl SH windows	@	\$43.13	=	\$20,961.18
6	french door(s), paint grade (per each, not pair)	@	\$1,337.45	=	\$8,024.70
2	hollow metal door(s)	@	\$1,055.70	=	\$2,111.40
3	solid core wood door(s)	@	\$1,055.70	=	\$3,167.10
3	sidelite(s)	@	\$534.75	=	\$1,604.25
6	fanlite	@	\$1,200.00	=	\$7,200.00
			TOTAL	=	\$43,068.63

Windows were not operated. Cost is for replacement of existing windows with replacement windows. Replacement windows allow for installation without requiring removal of exterior trim, siding, or flashing. In most cases, the interior trim will not need to be replaced either.

If replacement windows are vinyl, look for thick walled extrusion frames, metal reinforcements and heat welded corners as opposed to mechanically fastened.

Window seals can fail at any point. Replace individual windows if a seal breaks out of annual maintenance budget on an as needed basis.

# **Component Detail**

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

<b>Gym Equipme</b>	nt - Replace					
Category	090 Equipment	Quant	ity			1 total
		Unit C	Cost			\$13,098.200
		% of I	Replacemen	t		100.00%
		Curre	nt Cost			\$13,098.20
Placed In Service	01/09	Future	e Cost			\$15,189.90
Useful Life	12					
Adjustment	+5	Assign	ned Reserve	s at l	FYB	\$8,475.31
Remaining Life	6	Month	nly Member	Con	tribution	\$56.22
Replacement Year	2026	Month	nly Interest (	Cont	ribution	\$11.75
		Total	Monthly Co	ntrib	oution	\$67.97
Comments:						
	2 treadmill, good	@ \$3	3,520.80	=	\$7,041.60	
	1 stairclimber, simple	@ \$1	,800.00	=	\$1,800.00	
	1 stationary bike, good	@ \$1	,725.00	=	\$1,725.00	
	1 weight machine	@ \$2	2,531.60	=	\$2,531.60	
			TOTAL	=	\$13,098.20	

### **Component Detail**

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

HVAC - Split System				
Category	090 Equipment	Quantity	2 total	
		Unit Cost	\$7,000.000	
		% of Replacement	50.00%	
		Current Cost	\$7,000.00	
Placed In Service	05/16	Future Cost	\$8,528.82	
Useful Life	8			
Adjustment	-4	Assigned Reserves at FYB	\$7,000.00	
Remaining Life	0	Monthly Member Contribution	\$58.82	
Replacement Year	2020	Monthly Interest Contribution	\$0.55	
		<b>Total Monthly Contribution</b>	\$59.36	

#### Comments:

Cost is for full replacement of the outdoor condenser unit and indoor air handler. The indoor air handler was not inspected. HVAC contractors frequently remark that newer systems are more efficient, but do not seem to last as long as older units do. Control wire for thermostats fail at some point, but there is spare wire in the wirestrand, so it usually unnecessary to pull new wire, which would involve cutting holes in walls.

Older compressors (the condenser's main component) suffer from loss of compression as valves wear, resulting in excessive electrical use and loss of comfort in interior spaces. Systems may be replaced prior to complete failure. Replacement of the indoor evaporator coils may make economic sense in a newer system that has somehow failed, but rarely in older systems.

Keep vegetation, debris and mulch away from the outside (condenser) unit. The insulation on the suction line, which runs between the building and the condenser breaks down over time and should be replaced. The condensate line may simply terminate outside, where it is often clogged from mulch and other landscaping operations; it should be clearly marked and monitored to prevent being buried or damaged by lawn equipment.

Condenser unit should be level to maintain proper oil levels and to prevent liquid from entering the compressor. Unusual noise or vibrations may indicate imminent failure of the compressor, but may also be worn bearings, deteriorated vibration separators or pads. Continuous running on mild days or systems that start and stop frequently are reasons to call a professional. Short cycling or continuous running will shorten the life expectancy of the compressor. Any evidence of stains or leaks requires further investigation.

Filters should be replaced every 3 months or cleaned in the case of semi-permanent plastic filters. Filters are commonly located on the return grilles, but may also be located on the air handler. Once a year, the condenser and evaporator coils should be cleaned, and the condensate line should be blown or flushed to remove any particles that could be blocking the line. Keep the condensate tray, drip pan, and condensate pump (if one exists) free of debris. Minor repairs or maintenance include adjusting or replacing belts and/or pulleys that power the blower. Some motors may need to be lubricated.

The gas manifold should be clean, rust free, and the flame should only be blue with orange tip. Yellow flame or blue flame with yellow tips is a warning sign that carbon monoxide is present; a professional should be called immediately. Gas flame should be uniform, not erratic.

### **Component Detail**

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

EXCLUDED			
Category	110 Miscellaneous	Quantity	
		Unit Cost	\$0.000
		% of Replacement	0.00%
		Current Cost	\$0.00
Placed In Service	01/19	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
		<b>Total Monthly Contribution</b>	\$0.00

#### Comments:

The following items have been excluded. Please let us know if the board would like any of these items incorporated into the study.

Soffit repairs - Any repairs will likely occur outside the forecast window.

Hot water heater of clubhouse - low cost

Pool filter and pumps - low cost.

Interior clubhouse doors - Long life. Replace as needed.

Water and sewer mains - Client representative has indicated that HOA is not responsible for these lines. This can be a considerably expensive endeavor, so this should be double checked with the muncipality.

Pool umbrellas - Umbrellas are listed under the pool furniture asset, but umbrellas are typically replaced more frequently. Individual replacement is not listed here.

Streets, sidewalk, and curb - These items are believed to be maintained by the municipality. Please advise if this is not the case.

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Number of components included in this reserve analysis is 37.

9.19.2019(1) RESERVE PROFESSIONALS



Shingles not laying flat properly.



Shingles not laying flat properly.



Roof conditions such as these should be monitored for signs of overflow.



Undiagnosed issue with roof underlayment.



Inadequate overhang of shingles.



Minor stone damage



Exposed irrigation lines.



Patching of holes in asphalt.



Uneven wearing of seal coat.



Seal coat not applied to edges.