

# REPLACEMENT RESERVE REPORT 2013

## KINGSBRIDGE HOMEOWNERS ASSOCIATION



Prepared for:

**KINGSBRIDGE HOMEOWNERS ASSOCIATION**

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REPLACEMENT RESERVE REPORT FY 2013  
KINGSBRIDGE HOMEOWNERS ASSOCIATION



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# REPLACEMENT RESERVE REPORT

## KINGSBRIDGE HOMEOWNERS ASSOCIATION

Simpsonville, South Carolina



**Scope.** Kingsbridge Homeowners Association is a community located in Simpsonville, South Carolina. Kingsbridge Homeowners Association was constructed in 1997. The community consists of 175 single family homes. The survey examined the common elements of the property, including:

- Asphalt drive and parking and bridges.
- Concrete sidewalks and curb and gutter.
- Retaining walls and fencing.
- Swimming pool and community building.
- Tennis courts
- Guard house and entry gates

**Level of Service.** This study has been performed as a Level II Update, With Site Visit/On-Site Review as defined under the National Reserve Study Standards that have been adopted by the Community Associations Institute. As such, the component inventory is based on the study that was performed by Miller Dodson Associates on May 10, 2006. This information was adjusted to reflect changes to the inventory that were provided by the community manager, and the quantities were adjusted accordingly from field measurement and/or quantity takeoffs from to-scale drawings. The condition of all commonly-owned components was ascertained from a site visit and the visual inspection of each component by the Analyst. The life expectancy and the value of components are provided based in part on these observations. The fund status and funding plan have been derived from analysis of this data.

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

- **Inventory of Items Owned by the Association.** Section B Replacement Reserve Inventory lists the Projected Replacements of the commonly owned items that require periodic replacement using funding from Replacement Reserves. The Replacement Reserve Inventory also provides information about excluded items, which are items whose replacements are not scheduled for funding from Replacement Reserves.
- **Condition of Items Owned by the Association.** Section B Replacement Reserve Inventory includes our estimates of the normal economic life and the remaining economic life for the projected replacements. Section C Calendar of Projected Annual Replacements provides a year-by-year listing of the projected replacements. Section D Condition Assessment provides additional detail for items that are unique or deserving of attention because of their condition or the manner in which they have been treated in this Study.
- **Financial Plan.** The Association has a fiduciary responsibility to protect the appearance, value, and safety of the property and it is therefore essential the Association have a financial plan that provides funding for the projected replacements. In conformance with American Institute of Certified Public Accountant guidelines, Section A Replacement Reserve Analysis evaluates the current funding of Replacement Reserves as reported by the Association and recommends annual funding of Replacement Reserves by two generally accepted accounting methods; the Cash Flow Method and the Component Method. Section A Replacement Reserve Analysis includes graphic and tabular presentations of these methods and current Association funding. An Executive Summary of these calculations is provided on Page A1.

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

- The Request for Proposal submitted and executed by the Association.
- Our visual evaluation and measurements on July 18, 2012. Miller - Dodson Associates has visually inspected the common elements of the property in order to ascertain the remaining useful life and the replacement costs of these components.

**Engineering Drawings.** No architectural drawings or engineering site plans were available for review in connection with this study. We recommend the Association assemble a library of site and building plans of the entire community. Reproducible drawings should be stored and kept in a secure fireproof location. The Association will find these drawings to be a valuable resource in planning and executing future projects.

**Current Funding.** This reserve study has been prepared for Fiscal Year 2013 covering the period from January 1, 2013 to December 31, 2013. The Replacement Reserves are projected to be \$245,000 on December 31, 2012. The planned contribution for the fiscal year is \$101,875.

The balance and contribution figures have been supplied by the property management agent and confirmation or audit of these figures is beyond the scope of the study. For the purposes of this study, it is assumed that the annual contribution will be deposited at the end of each month.

**Acknowledgement.** Miller - Dodson Associates would like to acknowledge the assistance and input of Nolan Merritt, Board Member. He provided very helpful insight into the current operations at the property.

**Analyst's Credentials.** Larry D. Ellis holds a Bachelor's Degree in Industrial Management from the University of Tennessee and a Master's Degree in Industrial Management from Central Michigan University. He has over 20 years' experience in management engineering with the United States Air

Force and over 15 years working with community associations and capital reserve analysis. Larry holds a Reserve Specialist (RS) Professional Certification from the Community Associations Institute (CAI). He also holds a Professional Community Association Manager (PCAM) Certification from the Community Associations Institute (CAI) and has extensive experience at portfolio management and has managed large-scale properties, including both condominium and HOA. Larry has worked as a Regional Director for a large Management Company responsible for over a 100 properties and their employees and as Director of Business Development at the corporate level. He is currently a Reserve Analyst for Miller - Dodson Associates.

Respectively submitted,  
MILLER - DODSON ASSOCIATES

Larry Ellis, AMS, PCAM, RS  
Reserve Specialist

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## EXECUTIVE SUMMARY

The Kingsbridge HOA Replacement Reserve Inventory identifies 93 Projected Replacements for funding from Replacement Reserves, with an estimated one-time replacement cost of \$2,963,644.

The Replacement Reserve Analysis calculates recommended funding of Replacement Reserves by the two generally accepted methods, the Cash Flow Method and the Component Method. The Analysis also evaluates current funding of Replacement Reserves, as reported by the Association. The calculations and evaluation are summarized below:

### **\$178,843 CASH FLOW METHOD MINIMUM ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2013.**

\$85.16 Per unit (average), minimum monthly funding of Replacement Reserves

The Cash Flow Method (CFM) calculates Minimum Annual Funding of Replacement Reserves that will fund Projected Replacements identified in the Replacement Reserve Inventory from a common pool of Replacement Reserves and prevent Replacement Reserves from dropping below a Minimum Recommended Balance.

CFM - Minimum Annual Funding remains the same between peaks in cumulative expenditures called Peak Years.

The first Peak Year occurs in 2043 which is outside of the 30-year Study Period. The Cash Flow Method - Minimum Annual Funding of Replacement Reserves remains constant at \$178,843 throughout the entire 30-year Study Period.

### **\$267,820 COMPONENT METHOD RECOMMENDED ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2013.**

\$127.53 Per unit (average), recommended monthly funding of Replacement Reserves

The Component Method is a very conservative funding model developed by HUD in the early 1980's.

The Component Method treats each projected replacement in the Replacement Reserve Inventory as a separate account. Deposits are made to each individual account, where funds are held for exclusive use by that item.

Based on this funding model, the Association has a Current Funding Objective of \$1,158,151.

The Association reports having \$245,000 on deposit, which is 21.2% funded.

### **\$101,875 CURRENT ANNUAL FUNDING OF REPLACEMENT RESERVES (as reported by the Association).**

\$48.51 Per unit (average), reported current monthly funding of Replacement Reserves

The evaluation of Current Funding, as reported by the Association, has calculated that if the Association continues to fund Replacement Reserves at the current level, there will NOT be adequate funds for Projected Replacements in 23 years of the 30-year Study Period, and a maximum shortfall of \$-1,096,671 occurs in 2042.

Pages A2 and A3 explain the Study Year, Study Period, Adjustments (interest & inflation), Beginning Balance, and Projected Replacements. Pages A4 to A9 explain in more detail the calculations associated with the Cash Flow Method, Component Method, and Current Funding.

## REPLACEMENT RESERVE STATUS AND FUNDING PLAN

Current funding of Replacement Reserves is inadequate to fund Projected Replacements.

We recommend the Association adopt a Replacement Reserve Funding Plan based on the Cash Flow Method or the Component Method, to ensure that adequate funding is available throughout the 30-Year Study Period for the \$4,397,921 of Projected Replacements listed in the Kingsbridge HOA Replacement Reserve Inventory.

The Funding Plan should be professionally updated every three to five years or after completion of each major replacement project. The Board of Directors has a fiduciary responsibility to review the Funding Plan annually and should consider annual increases in Replacement Reserve funding at least equal to the Producer Price Index.

## REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION

The Kingsbridge HOA Replacement Reserve Analysis calculations of recommended funding of Replacement Reserves by the Cash Flow Method and the Component Method, and the evaluation of the Current Funding, are based upon the same General Information; including the Study Year, Study Period, Beginning Balance, and Projected Replacements.

### STUDY YEAR

The Association reports that their accounting year begins on January 1, and the Study Year, the first year evaluated by the Replacement Reserve Analysis, begins on January 1, 2013.

### STUDY PERIOD

The Replacement Reserve Analysis evaluates the funding of Replacement Reserves over a 30-year Study Period that begins on January 1, 2013.

### BEGINNING BALANCE

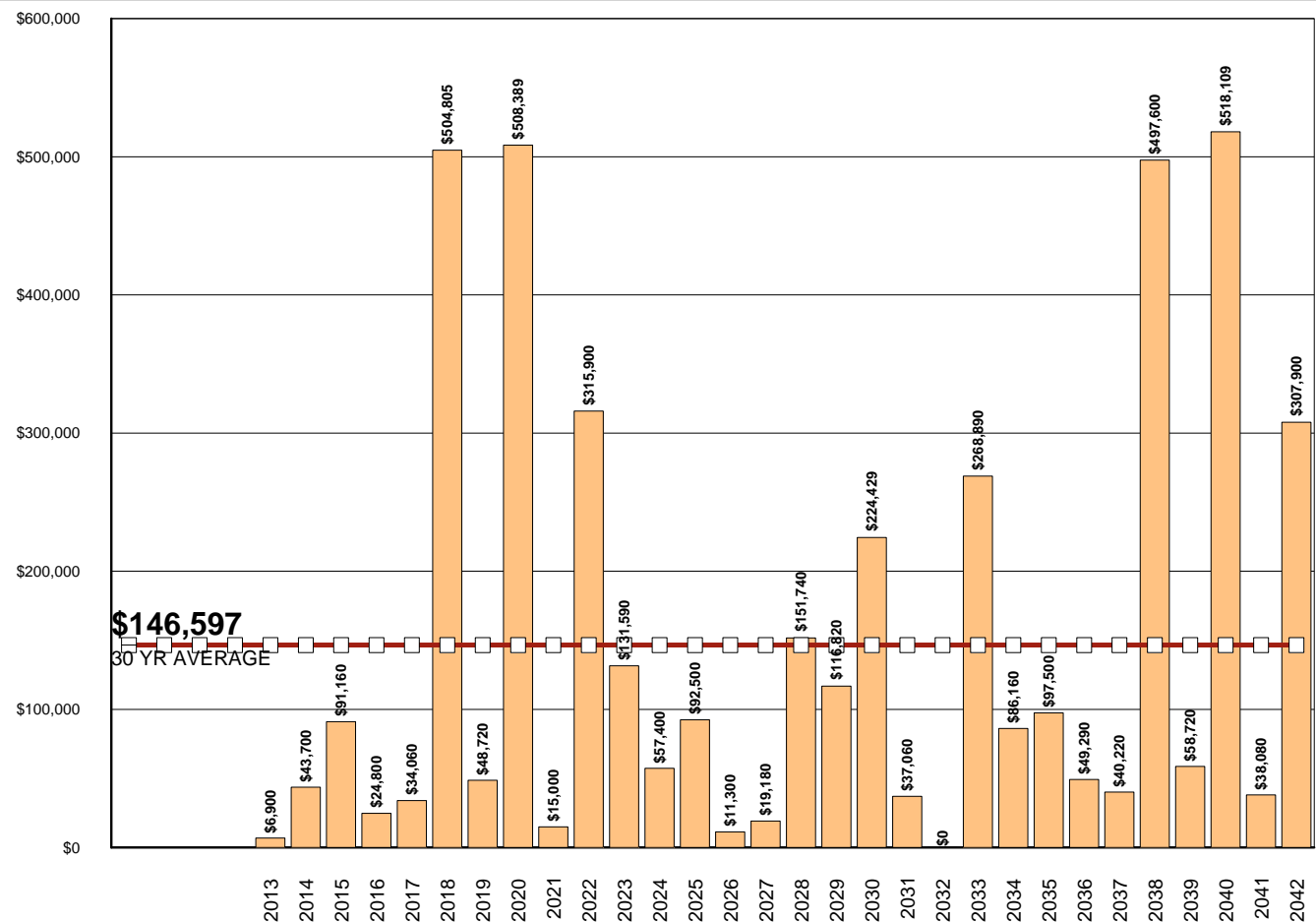
The Association reports Replacement Reserves on Deposit totaling \$245,000 at the start of the Study Year.

### ADJUSTMENTS AND INFLATION

The short term consequences of 4.50% inflation and no constant annual increase in Reserve funding on the Cash Flow Method, as calculated by a proprietary model developed by Miller + Dodson Associates, are shown on Pages A6 and A7. Other calculations in this Analysis do not account for inflation or a constant annual increase. The calculations in this Analysis do not account for interest earned on Replacement Reserves.

### Graph #1. Annual Expenditures for Projected Replacements

This bar graph summarizes annual expenditures for the \$4,397,921 of Projected Replacements identified in the Replacement Reserve Inventory over the 30-year Study Period. The red line shows the average annual expenditure of \$146,597.





## PROJECTED REPLACEMENTS

The Kingsbridge HOA Replacement Reserve Inventory (Section B) identifies 93 Projected Replacements with a one-time Replacement Cost of \$2,963,644 and replacements totaling \$4,397,921 in the 30-year Study Period. Projected Replacements are the replacement of commonly-owned items that:

- require periodic replacement and
- whose replacement is to be funded from Replacement Reserves.

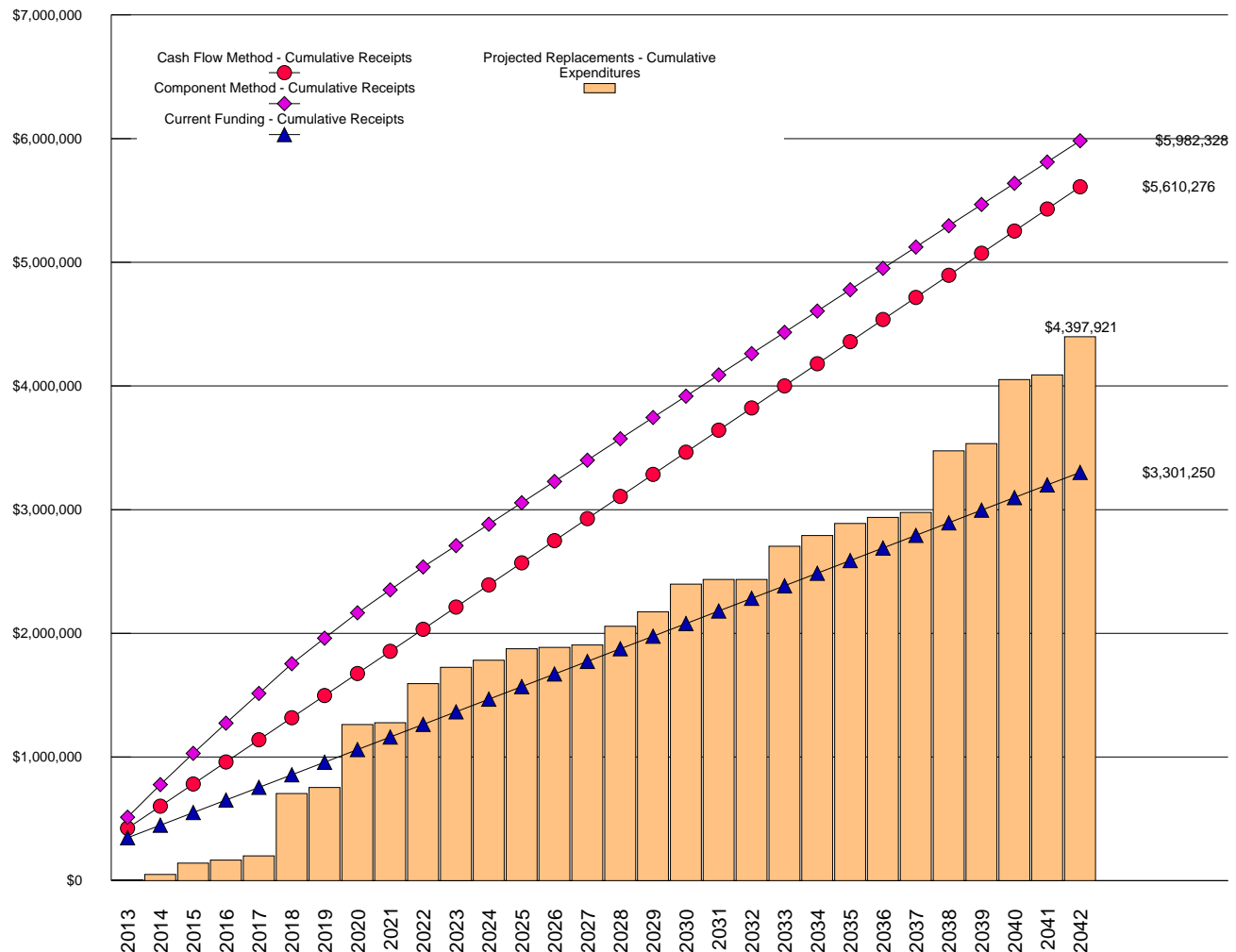
The accuracy of the Kingsbridge HOA Replacement Reserve Analysis is dependent upon expenditures from Replacement Reserves being made ONLY for the 93 Projected Replacements specifically listed in the Replacement Reserve Inventory.

Section D - Condition Assessment, may also contain information on items specifically excluded from the Replacement Reserve Inventory.

The Section B - Replacement Reserve Inventory, contains Tables that list each Projected Replacement (and any Excluded Items) broken down into 6 major categories (Pages B3 to B8). Tables are also included that list each Projected Replacement by year for each of the 30 years of the Study Period beginning on Page C1.

### Graph #2. Comparison of Cumulative Replacement Reserve Funding and Expenditures

The line graph shows Replacement Reserves - Cumulative Receipts over the 30-year Study Period by the Cash Flow Method (red circles), Component Method (purple diamonds), and the Current Funding Plan as reported by the Association (blue triangles). The bar graph shows the Cumulative Expenditures necessary to fund the Project Replacements listed in the Replacement Reserve Inventory (Section B) and summarized in Graph #1.



## CASH FLOW METHOD



**\$178,843**

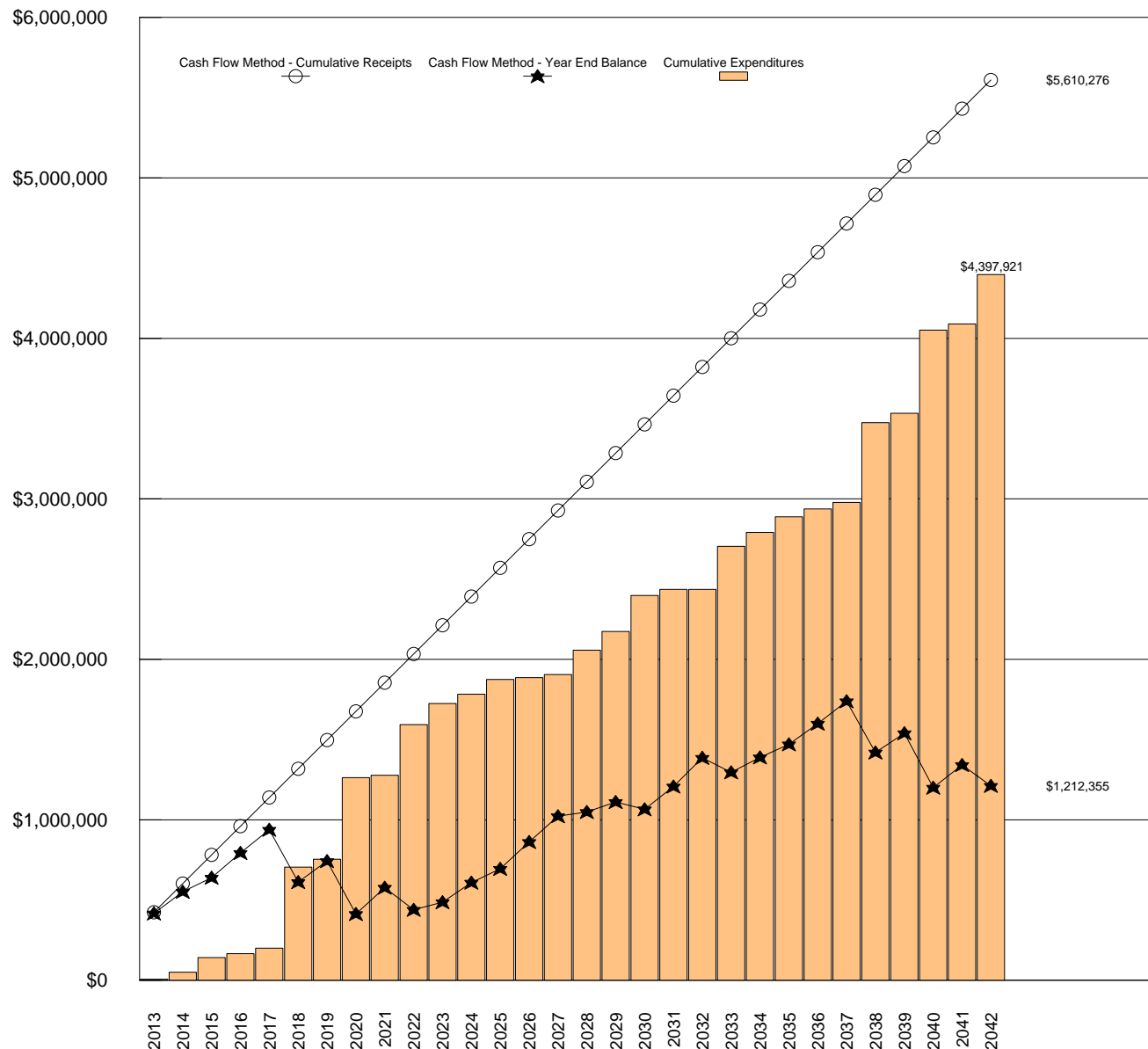
### CASH FLOW METHOD MINIMUM ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2013.

\$85.16 Per unit (average), minimum monthly funding of Replacement Reserves

General. The Cash Flow Method (also referred to as the Straight Line Method) is founded on the concept that the Replacement Reserve Account is solvent if cumulative receipts always exceed cumulative expenditures. The Cash Flow Method calculates a MINIMUM annual deposit to Replacement Reserves that will:

- Fund all Projected Replacements listed in the Replacement Reserve Inventory (see Section B)
- Prevent Replacement Reserves from dropping below the Minimum Recommended Balance (see Page A-5)
- Allow a constant annual funding level between peaks in cumulative expenditures

**Graph #3. Cash Flow Method - Cumulative Receipts and Expenditures Graph**



### CASH FLOW METHOD (cont'd)

- **Replacement Reserves - Minimum Recommended Balance.** The Minimum Recommended Balance is \$148,182, which is 5.0 percent of the one-time replacement cost of the Projected Replacements listed in the Replacement Reserve Inventory. Unless otherwise noted in the Comments on Page A-9, the Minimum Recommended Balance has been established by the Analyst based upon an evaluation of the types of items included in the Replacement Reserve Inventory.
- **Peak Years.** The Cash Flow Method calculates a constant annual funding of Replacement Reserves between peaks in cumulative expenditures called Peak Years. In Peak Years, Replacement Reserves on Deposit decline to the Replacement Reserves - Minimum Recommended Balance discussed in the paragraph above.  
First Peak Year. The first Peak Year occurs in 2043, which is outside of the 30-year Study Period. The Cash Flow Method - Minimum Annual Funding of Replacement Reserves of \$178,843 remains the same throughout the entire 30-year Study Period.  
This funding level is adequate to fund the \$4,397,921 of Projected Expenditures listed in the Replacement Reserve Inventory.
- **Study Period.** The Cash Flow Method calculates the recommended contributions to Replacement Reserves over the 30-year Study Period. These calculations are based upon a 40-year projection of expenditures for Projected Replacements to avoid the Replacement Reserve balance dropping to the Minimum Recommended Balance in the final year of the Study Period.
- **Failure to Fund.** The Cash Flow Method calculates a MINIMUM annual funding of Replacement Reserves. Failure to fund Replacement Reserves at the minimum level calculated by the Cash Flow Method will result in Replacement Reserves not being available for the Projected Replacements listed in the Replacement Reserve Inventory and/or Replacement Reserves dropping below the Minimum Recommended Balance.
- **Adjustment to the Cash Flow Method for interest and inflation.** The funding recommendations on Pages A4 and A5 do not account for interest earned on Replacement Reserves, the effects of inflation of the cost of Projected Replacements, or a constant annual increase in Annual Funding of Replacement Reserves.
- **Comparison of Cash Flow Funding and Average Annual Expenditure.** The Average Annual Expenditure for Projected Replacements listed in the Reserve Inventory over the 30-year Study Period is \$146,597 (see Graph #1). The Cash Flow Method - Minimum Annual Funding of Replacement Reserves in the Study Year is \$178,843. This is 122.0 percent of the Average Annual Expenditure, indicating that the Association is building Replacement Reserves in advance of the first Peak Year in 2043.

**Table #1. Cash Flow Method Data - Years 1 through 30**

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Beginning balance	\$245,000									
Minimum annual funding	\$178,843	\$178,843	\$178,843	\$178,843	\$178,843	\$178,843	\$178,843	\$178,843	\$178,843	\$178,843
Expenditures	\$6,900	\$43,700	\$91,160	\$24,800	\$34,060	\$504,805	\$48,720	\$508,389	\$15,000	\$315,900
Year end balance	\$416,943	\$552,085	\$639,768	\$793,810	\$938,593	\$612,630	\$742,753	\$413,206	\$577,049	\$439,992
Minimum recommended balance	\$148,182	\$148,182	\$148,182	\$148,182	\$148,182	\$148,182	\$148,182	\$148,182	\$148,182	\$148,182
Cumulative expenditures	\$6,900	\$50,600	\$141,760	\$166,560	\$200,620	\$705,425	\$754,145	\$1,262,534	\$1,277,534	\$1,593,434
Cumulative receipts	\$423,843	\$602,685	\$781,528	\$960,370	\$1,139,213	\$1,318,055	\$1,496,898	\$1,675,740	\$1,854,583	\$2,033,425
Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Minimum annual funding	\$178,843	\$178,843	\$178,843	\$178,843	\$178,843	\$178,843	\$178,843	\$178,843	\$178,843	\$178,843
Expenditures	\$131,590	\$57,400	\$92,500	\$11,300	\$19,180	\$151,740	\$116,820	\$224,429	\$37,060	
Year end balance	\$487,244	\$608,687	\$695,029	\$862,572	\$1,022,234	\$1,049,337	\$1,111,359	\$1,065,773	\$1,207,556	\$1,386,398
Minimum recommended balance	\$148,182	\$148,182	\$148,182	\$148,182	\$148,182	\$148,182	\$148,182	\$148,182	\$148,182	\$148,182
Cumulative expenditures	\$1,725,024	\$1,782,424	\$1,874,924	\$1,886,224	\$1,905,404	\$2,057,144	\$2,173,964	\$2,398,393	\$2,435,453	\$2,435,453
Cumulative receipts	\$2,212,268	\$2,391,110	\$2,569,953	\$2,748,795	\$2,927,638	\$3,106,480	\$3,285,323	\$3,464,166	\$3,643,008	\$3,821,851
Year	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Minimum annual funding	\$178,843	\$178,843	\$178,843	\$178,843	\$178,843	\$178,843	\$178,843	\$178,843	\$178,843	\$178,843
Expenditures	\$268,890	\$86,160	\$97,500	\$49,290	\$40,220	\$497,600	\$58,720	\$518,109	\$38,080	\$307,900
Year end balance	\$1,296,351	\$1,389,033	\$1,470,376	\$1,599,928	\$1,738,551	\$1,419,793	\$1,539,916	\$1,200,650	\$1,341,412	\$1,212,355
Minimum recommended balance	\$148,182	\$148,182	\$148,182	\$148,182	\$148,182	\$148,182	\$148,182	\$148,182	\$148,182	\$148,182
Cumulative expenditures	\$2,704,343	\$2,790,503	\$2,888,003	\$2,937,293	\$2,977,513	\$3,475,113	\$3,533,833	\$4,051,941	\$4,090,021	\$4,397,921
Cumulative receipts	\$4,000,693	\$4,179,536	\$4,358,378	\$4,537,221	\$4,716,063	\$4,894,906	\$5,073,748	\$5,252,591	\$5,431,433	\$5,610,276

## CASH FLOW METHOD - INFLATION ADJUSTED FUNDING

### The Miller + Dodson Model

General. The Cash Flow Method funding recommendations shown on pages A4 and A5 have been calculated in today's dollars with no adjustment for inflation. Recent swings in construction costs demonstrate the risk facing an Association that does not consider the effects of inflation when funding Replacement Reserves.

Cash Flow Method - Inflation Adjusted Funding. Below is an outline of the proprietary model developed by Miller + Dodson Associates to forecast the short-term consequences of inflation on Replacement Reserves.

- Study Year. The Unit Replacement Costs in the Study Year (listed in Section B Inventory) reflect current construction costs. Appropriate adjustments to account for any time lag between when the Study is conducted and the Study Year have been made by the Reserve Analyst.
- Year Two Inflation Adjusted Funding calculation. The Year Two Starting Balance is calculated assuming Association compliance with the Study Year funding and replacement data listed on Page A7. Next, the Projected Replacement Costs are adjusted using the Construction Cost Inflation Rate (see detailed information below).  
The adjusted data is then evaluated using the Cash Flow Method, calculating the Year Two Inflation Adjusted Minimum Annual Funding of Replacement Reserves.
- Year Three Inflation Adjusted Funding Calculation. The same methodology has been used to develop the Inflation Adjusted Cash Flow Method Minimum Annual Funding of Replacement Reserves in Year Three. Simple compounding has been used to calculate the Year Three Projected Replacement Costs.
- Year Four and Beyond. We have not calculated adjusted funding recommendations beyond the third year of the Study nor do we believe it is appropriate to do so. Inflation adjusted funding recommendations are not intended to be a substitute for the periodic evaluation of the common elements by an experienced Reserve Analyst. We recommend the common elements of the community be evaluated by a Reserve Analyst every 3 to 5 years and at the completion of each major replacement project.

Base Construction Cost Inflation Rate. We have utilized a 4.50 percent base rate of inflation in our calculation of second and third year inflation adjusted funding. The rate of inflation is based upon our review of the Producer Price Indexes for Construction Materials, Structure Types & Subcontractors as published by the Bureau of Labor Statistics and our experience with recent pricing trends in your area."

Assumptions. Cash Flow Method, Inflation Adjusted Funding in Year Two and Year Three is calculated based upon three assumptions discussed below and quantified on Page A7. Prior to approving a budget based upon the calculations, the Association should review the accuracy of the assumptions. If discrepancies are noted, contact Miller + Dodson Associates to arrange for a Replacement Reserve Study Update.

- Replacement Reserve Funding. We have assumed the Association will fund Replacement Reserves as recommended in the Study.
- Scheduled Replacements. We have assumed the Association will make Scheduled Replacements as discussed in the Study (listed on Page C2) and that the cost of these replacements is in substantial compliance with the estimated replacement costs. We have further assumed that no Replacement Reserves will be used to fund replacements other than those specifically listed in the Replacement Reserve Inventory.
- Construction Cost Inflation Rate evaluation. Prior to approving a budget based upon the Year Two and Year Three Adjusted Replacement Reserve Funding calculations, the 4.50 percent base rate of inflation used in our should be compared to rates published by the Bureau of Labor Statistics. If a significant discrepancy (over 1 percent) is noted, contact Miller Dodson Associates prior to using the funding calculations.

Interest. The calculations do not account for interest earned on Replacement Reserves on Deposit. If earned interest is to be attributed to Replacement Reserves, our funding recommendation should be reduced by the actual amount of earned interest placed into Replacement Reserves.

## CASH FLOW METHOD THREE-YEAR FUNDING RECOMMENDATIONS WITH INFLATION ADJUSTMENT

### 2013 - STUDY YEAR

#### ● **\$178,843 MINIMUM ANNUAL FUNDING**

\$85.16 Per unit (average), minimum monthly funding of Replacement Reserves

The \$178,843 funding of Replacement Reserves in the Study Year has been calculated using current construction costs (listed in Section B Inventory). The Analyst has adjusted the costs to account for any time lag between the preparation of the Study and the Study Year.

### 2014 - YEAR TWO

#### ● **\$187,516 INFLATION ADJUSTED MINIMUM ANNUAL FUNDING**

\$89.29 Per unit (average), minimum monthly funding of Replacement Reserves

The \$187,516 inflation adjusted funding of Replacement Reserves in 2014 represents a 4.85 percent increase over the non-inflation adjusted funding recommendation of \$178,843 in the Study Year.

The specific assumptions used to calculate the Year Two Inflation Adjusted Funding are listed below. If the assumptions are inaccurate, do not use the data and contact Miller Dodson Associates to arrange for a Replacement Reserve Study Update. The assumptions are:

- Replacement Reserves on Deposit totaling \$416,943 on January 1, 2014.
- All 2013 Projected Replacements scheduled in the Replacement Reserve Inventory and listed on Page C2, having been accomplished in 2013 at a cost of \$6,900.
- An average annual Construction Cost Inflation Rate of 4.50 percent over the previous 12 month period.

### 2015 - YEAR THREE

#### ● **\$196,821 INFLATION ADJUSTED MINIMUM ANNUAL FUNDING**

\$93.72 Per unit (average), minimum monthly funding of Replacement Reserves

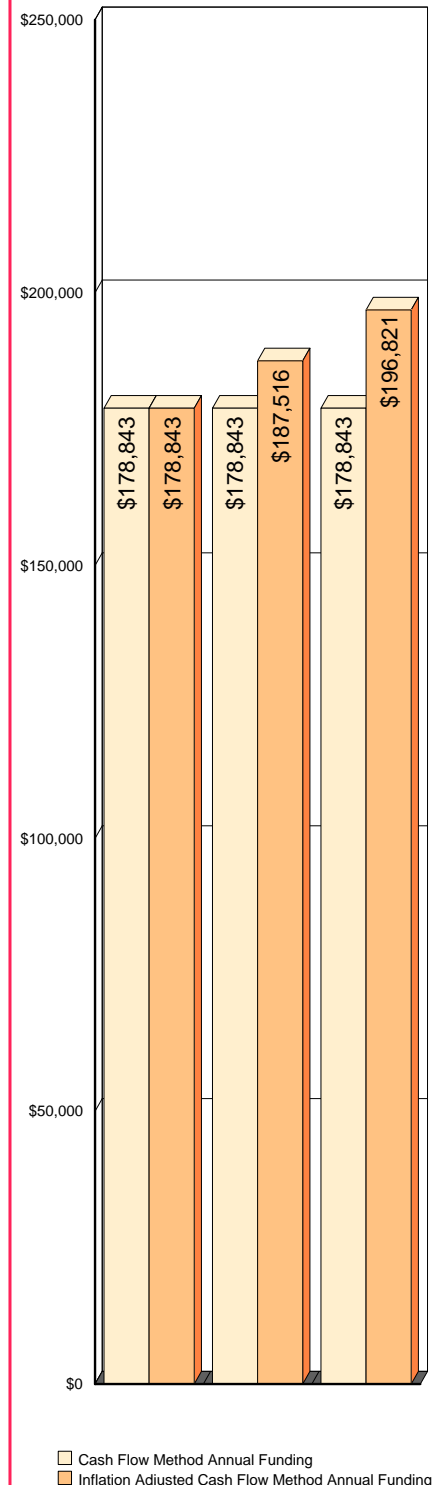
The \$196,821 inflation adjusted funding of Replacement Reserves in 2015 represents a 10.05 percent increase over the non-inflation adjusted funding recommendation of \$178,843 in the Study Year.

The specific assumptions used to calculate the Year Two Inflation Adjusted Funding are listed below. If the assumptions are inaccurate, do not use the data and contact Miller Dodson Associates to arrange for a Replacement Reserve Study Update. The assumptions are:

- Replacement Reserves on Deposit totaling \$552,085 on January 1, 2014.
- All 2014 Projected Replacements scheduled in the Replacement Reserve Inventory and listed on Page C2, having been accomplished in 2014 at a cost of \$45,667.
- An average annual Construction Cost Inflation Rate of 4.50 percent over the previous 24 month period.

### ANNUAL FUNDING GRAPH

The bar graph below shows the Cash Flow Method Annual Funding calculated in today's dollars (lighter bars) and the Inflation Adjusted Cash Flow Method Annual Funding (dark bars)



## COMPONENT METHOD



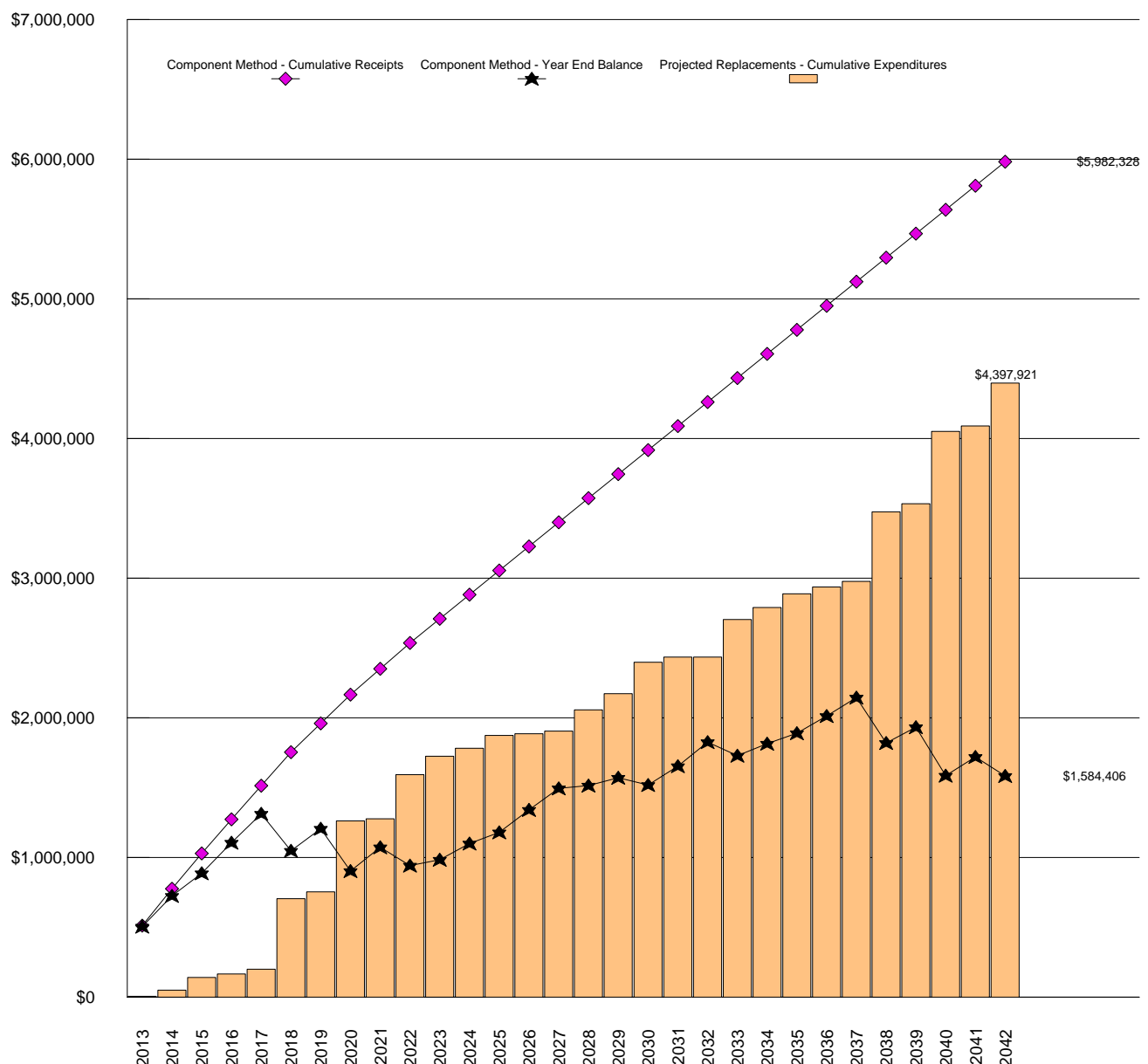
**\$267,820**

### COMPONENT METHOD RECOMMENDED ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2013.

\$127.53 Per unit (average), recommended monthly funding of Replacement Reserves

General. The Component Method (also referred to as the Full Funded Method) is a very conservative mathematical model developed by HUD in the early 1980s. Each of the 93 Projected Replacements listed in the Replacement Reserve Inventory is treated as a separate account. The Beginning Balance is allocated to each of the individual accounts, as is all subsequent funding of Replacement Reserves. These funds are "locked" in these individual accounts and are not available to fund other Projected Replacements. The calculation of Recommended Annual Funding of Replacement Reserves is a multi-step process outlined in more detail on Page A9.

**Graph #4. Component Method - Cumulative Receipts and Expenditures Graph**



## COMPONENT METHOD (cont'd)

- **Current Funding Objective.** A Current Funding Objective is calculated for each of the Projected Replacements listed in the Replacement Reserve Inventory. Replacement Cost is divided by the Normal Economic Life to determine the nominal annual contribution. The Remaining Economic Life is then subtracted from the Normal Economic Life to calculate the number of years that the nominal annual contribution should have been made. The two values are then multiplied to determine the Current Funding Objective. This is repeated for each of the 93 Projected Replacements. The total, \$1,158,151, is the Current Funding Objective.

For an example, consider a very simple Replacement Reserve Inventory with one Projected Replacement, a fence with a \$1,000 Replacement Cost, a Normal Economic Life of 10 years, and a Remaining Economic Life of 2 years. A contribution to Replacement Reserves of \$100 (\$1,000 ÷ 10 years) should have been made in each of the previous 8 years (10 years - 2 years). The result is a Current Funding Objective of \$800 (8 years x \$100 per year).

- **Funding Percentage.** The Funding Percentage is calculated by dividing the Beginning Balance (\$245,000) by the Current Funding Objective (\$1,158,151). At Kingsbridge HOA the Funding Percentage is 21.2%
- **Allocation of the Beginning Balance.** The Beginning Balance is divided among the 93 Projected Replacements in the Replacement Reserve Inventory. The Current Funding Objective for each Projected Replacement is multiplied by the Funding Percentage and these funds are then "locked" into the account of each item.

If we relate this calculation back to our fence example, it means that the Association has not accumulated \$800 in Reserves (the Funding Objective), but rather at 21.2 percent funded, there is \$169 in the account for the fence.

- **Annual Funding.** The Recommended Annual Funding of Replacement Reserves is then calculated for each Projected Replacement. The funds allocated to the account of the Projected Replacement are subtracted from the Replacement Cost. The result is then divided by the number of years until replacement, and the result is the annual funding for each of the Projected Replacements. The sum of these is \$267,820, the Component Method Recommended Annual Funding of Replacement Reserves in the Study Year (2013).

In our fence example, the \$169 in the account is subtracted from the \$1,000 Total Replacement Cost and divided by the 2 years that remain before replacement, resulting in an annual deposit of \$415. Next year, the deposit remains \$415, but in the third year, the fence is replaced and the annual funding adjusts to \$100.

- **Adjustment to the Component Method for interest and inflation.** The calculations in the Replacement Reserve Analysis do not account for interest earned on Replacement Reserves, inflation, or a constant annual increase in Annual Funding of Replacement Reserves. The Component Method is a very conservative method and if the Analysis is updated regularly, adequate funding will be maintained without the need for adjustments.

**Table #2. Component Method Data - Years 1 through 30**

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Beginning balance	\$245,000									
Recommended annual funding	\$267,820	\$263,674	\$253,165	\$243,649	\$241,275	\$239,617	\$206,331	\$205,847	\$185,025	\$185,025
Expenditures	\$6,900	\$43,700	\$91,160	\$24,800	\$34,060	\$504,805	\$48,720	\$508,389	\$15,000	\$315,900
Year end balance	\$505,920	\$725,895	\$887,900	\$1,106,749	\$1,313,964	\$1,048,776	\$1,206,387	\$903,846	\$1,073,871	\$942,997
Cumulative Expenditures	\$6,900	\$50,600	\$141,760	\$166,560	\$200,620	\$705,425	\$754,145	\$1,262,534	\$1,277,534	\$1,593,434
Cumulative Receipts	\$512,820	\$776,495	\$1,029,660	\$1,273,309	\$1,514,584	\$1,754,201	\$1,960,532	\$2,166,379	\$2,351,405	\$2,536,430
Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Recommended annual funding	\$173,025	\$173,108	\$172,741	\$172,589	\$172,589	\$172,589	\$172,485	\$172,199	\$172,162	\$171,956
Expenditures	\$131,590	\$57,400	\$92,500	\$11,300	\$19,180	\$151,740	\$116,820	\$224,429	\$37,060	
Year end balance	\$984,432	\$1,100,139	\$1,180,381	\$1,341,669	\$1,495,078	\$1,515,927	\$1,571,592	\$1,519,362	\$1,654,463	\$1,826,420
Cumulative Expenditures	\$1,725,024	\$1,782,424	\$1,874,924	\$1,886,224	\$1,905,404	\$2,057,144	\$2,173,964	\$2,398,393	\$2,435,453	\$2,435,453
Cumulative Receipts	\$2,709,455	\$2,882,563	\$3,055,305	\$3,227,893	\$3,400,482	\$3,573,071	\$3,745,556	\$3,917,754	\$4,089,916	\$4,261,872
Year	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Recommended annual funding	\$171,956	\$172,315	\$172,395	\$172,395	\$172,248	\$172,197	\$171,737	\$171,737	\$171,737	\$171,737
Expenditures	\$268,890	\$86,160	\$97,500	\$49,290	\$40,220	\$497,600	\$58,720	\$518,109	\$38,080	\$307,900
Year end balance	\$1,729,486	\$1,815,641	\$1,890,536	\$2,013,641	\$2,145,669	\$1,820,265	\$1,933,283	\$1,586,911	\$1,720,569	\$1,584,406
Cumulative Expenditures	\$2,704,343	\$2,790,503	\$2,888,003	\$2,937,293	\$2,977,513	\$3,475,113	\$3,533,833	\$4,051,941	\$4,090,021	\$4,397,921
Cumulative Receipts	\$4,433,829	\$4,606,143	\$4,778,538	\$4,950,933	\$5,123,181	\$5,295,378	\$5,467,115	\$5,638,853	\$5,810,590	\$5,982,328



## CURRENT FUNDING

### **\$101,875** CURRENT ANNUAL FUNDING OF REPLACEMENT RESERVES (as reported by the Association).

\$48.51 Per unit (average), reported current monthly funding of Replacement Reserves

General. Our evaluation of the Current Association Funding assumes that the Association will continue to fund Replacement Reserves at the current level of \$101,875 per year in each of the 30 years of the Study Period.

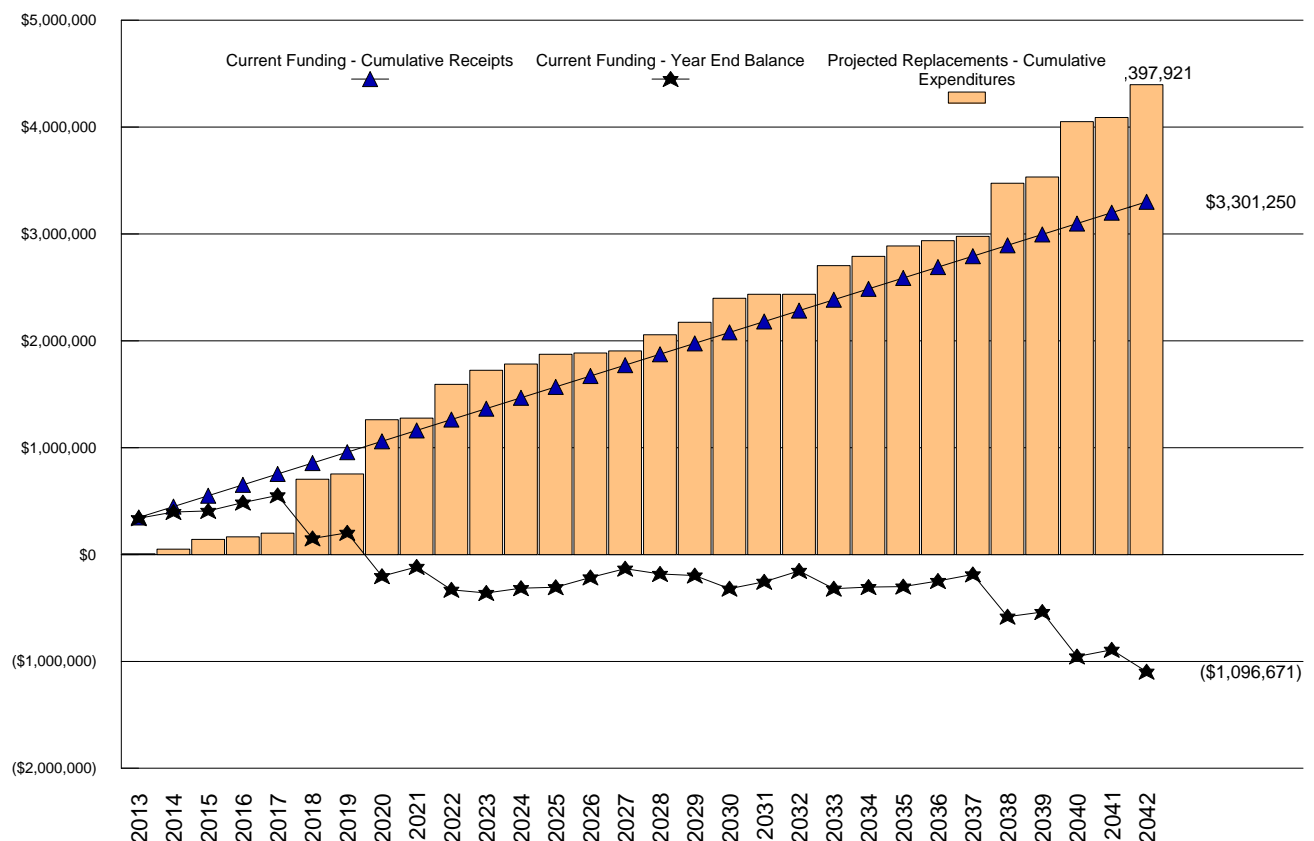
Our evaluation is based upon this Replacement Reserve Funding Level, a \$245,000 Beginning Balance, the Projected Annual Replacement Expenditures shown in Graph #1 and listed in the Replacement Reserve Inventory, and any interest, inflation rate, or constant annual increase in annual contribution adjustments discussed below.

- Evaluation. Our calculations have determined that Current Annual Funding of Replacement Reserves, as reported by the Association, is inadequate to fund Projected Replacement beginning in 2020.

The Current Annual Funding of Replacement Reserves results in insufficient funds to make Projected Replacements in 23 years of the 30-year Study Period, and a maximum shortfall of \$-1,096,671 occurs in 2042.

- Adjustment to the Current Association Funding for interest and inflation. The Calculations in the Replacement Reserve Analysis do not account for interest earned on Replacement Reserves, the effects of inflation of the cost of Projected Replacements, or a constant annual increase in Annual Funding of Replacement Reserves.
- Comparison of Current Association Funding and Average Annual Expenditure. The average annual expenditure for Projected Replacements listed in the Reserve Inventory over the 30-year Study Period is \$146,597 (see Graph #1). Current Association annual funding of Replacement Reserves is \$101,875, or approximately 69 percent of the Average Annual Expenditure.

**Graph #5. Current Association Funding - Cumulative Receipts and Expenditures Graph**





CURRENT FUNDING (cont'd)

Table #3. Current Funding Data - Years 1 through 30

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Beginning balance	\$245,000									
Annual deposit	\$101,875	\$101,875	\$101,875	\$101,875	\$101,875	\$101,875	\$101,875	\$101,875	\$101,875	\$101,875
Expenditures	\$6,900	\$43,700	\$91,160	\$24,800	\$34,060	\$504,805	\$48,720	\$508,389	\$15,000	\$315,900
Year end balance	\$339,975	\$398,150	\$408,865	\$485,940	\$553,755	\$150,825	\$203,980	(\$202,534)	(\$115,659)	(\$329,684)
Cumulative Expenditures	\$6,900	\$50,600	\$141,760	\$166,560	\$200,620	\$705,425	\$754,145	\$1,262,534	\$1,277,534	\$1,593,434
Cumulative Receipts	\$346,875	\$448,750	\$550,625	\$652,500	\$754,375	\$856,250	\$958,125	\$1,060,000	\$1,161,875	\$1,263,750
Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Annual deposit	\$101,875	\$101,875	\$101,875	\$101,875	\$101,875	\$101,875	\$101,875	\$101,875	\$101,875	\$101,875
Expenditures	\$131,590	\$57,400	\$92,500	\$11,300	\$19,180	\$151,740	\$116,820	\$224,429	\$37,060	
Year end balance	(\$359,399)	(\$314,924)	(\$305,549)	(\$214,974)	(\$132,279)	(\$182,144)	(\$197,089)	(\$319,643)	(\$254,828)	(\$152,953)
Cumulative expenditures	\$1,725,024	\$1,782,424	\$1,874,924	\$1,886,224	\$1,905,404	\$2,057,144	\$2,173,964	\$2,398,393	\$2,435,453	\$2,435,453
Cumulative receipts	\$1,365,625	\$1,467,500	\$1,569,375	\$1,671,250	\$1,773,125	\$1,875,000	\$1,976,875	\$2,078,750	\$2,180,625	\$2,282,500
Year	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Annual deposit	\$101,875	\$101,875	\$101,875	\$101,875	\$101,875	\$101,875	\$101,875	\$101,875	\$101,875	\$101,875
Expenditures	\$268,890	\$86,160	\$97,500	\$49,290	\$40,220	\$497,600	\$58,720	\$518,109	\$38,080	\$307,900
Year end balance	(\$319,968)	(\$304,253)	(\$299,878)	(\$247,293)	(\$185,638)	(\$581,363)	(\$538,208)	(\$954,441)	(\$890,646)	(\$1,096,671)
Cumulative Expenditures	\$2,704,343	\$2,790,503	\$2,888,003	\$2,937,293	\$2,977,513	\$3,475,113	\$3,533,833	\$4,051,941	\$4,090,021	\$4,397,921
Cumulative Receipts	\$2,384,375	\$2,486,250	\$2,588,125	\$2,690,000	\$2,791,875	\$2,893,750	\$2,995,625	\$3,097,500	\$3,199,375	\$3,301,250

## COMMENTS ON THE REPLACEMENT RESERVE ANALYSIS

- This Replacement Reserve Study has been developed in compliance with the Community Associations Institute, National Reserve Study Standards, for a Level Two - Update (with site visit and on-site review).
- Kingsbridge HOA has 175 units. The type of property is a home owner association.
- Our calculations assume that Replacement Reserves are not subject to tax.

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## REPLACEMENT RESERVE INVENTORY GENERAL INFORMATION

Kingsbridge HOA - Replacement Reserve Inventory identifies 93 Projected Replacements.

- **PROJECTED REPLACEMENTS.** 93 of the items are Projected Replacements and the periodic replacements of these items are scheduled for funding from Replacement Reserves. The Projected Replacements have an estimated one-time replacement cost of \$2,963,644. Replacements totaling \$4,397,921 are scheduled in the Replacement Reserve Inventory over the 30-year Study Period.

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

- **EXCLUDED ITEMS.** None of the items included in the Replacement Reserve Inventory are 'Excluded Items'. Multiple categories of items are typically excluded from funding by Replacement Reserves, including but not limited to:

**Tax Code.** The United States Tax Code grants very favorable tax status to Replacement Reserves, conditioned on expenditures being made within certain guidelines. These guidelines typically exclude maintenance activities, minor repairs and capital improvements.

**Value.** Items with a replacement cost of less than \$1,000 and/or a normal economic life of less than 3 years are typically excluded from funding from Replacement Reserves. This exclusion is made to accurately reflect how Replacement Reserves are administered. If the Association has selected an alternative level, it will be noted in the Replacement Reserve Inventory - General Comments on Page B2.

**Long-lived Items.** Items that when properly maintained, can be assumed to have a life equal to the property as a whole, are typically excluded from the Replacement Reserve Inventory.

**Unit improvements.** Items located on property owned by a single unit and where the items serve a single unit are generally assumed to be the responsibility of that unit, not the Association.

**Other non-common improvements.** Items owned by the local government, public and private utility companies, the United States Postal Service, Master Associations, state and local highway authorities, etc., may be installed on property that is owned by the Association. These types of items are generally not the responsibility of the Association and are excluded from the Replacement Reserve Inventory.

- **CATEGORIES.** The 93 items included in the Kingsbridge HOA Replacement Reserve Inventory are divided into 6 major categories. Each category is printed on a separate page, Pages B3 to B8.
- **LEVEL OF SERVICE.** This Replacement Reserve Inventory has been developed in compliance with the standards established for a Level Two - Update (with site visit and on-site review), as defined by the National Reserve Study Standards, established in 1998 by Community Associations Institute, which states:

*Level II Studies are based entirely on the component inventory from a prior study. This information is adjusted to reflect changes to the inventory that are provided by the Association, and the quantities are adjusted accordingly from field measurement and/or quantity takeoffs from to-scale drawings that are made available to us. The condition of all components is ascertained from a site visit and the visual inspection of each component by the analyst. The Remaining Economic Life and replacement cost of components are provided based in part on these observations. The fund status and Funding Plan are derived from analysis of this data.*

## REPLACEMENT RESERVE INVENTORY - GENERAL INFORMATION (cont'd)

- **INVENTORY DATA.** Each of the 93 Projected Replacements listed in the Replacement Reserve Inventory includes the following data:
  - Item Number. The Item Number is assigned sequentially and is intended for identification purposes only.
  - Item Description. We have named each item included in the Inventory. Where the name of the item and the category are not sufficient to specifically identify the item, we have included additional information in the Comments section at the bottom of the page.
  - Units. We have used standard abbreviations to identify the number of units including SF-square feet, LF-lineal feet, SY-square yard, LS-lump sum, EA-each, and PR-pair. Nonstandard abbreviations are noted in the Comments section on the page on which the abbreviation is used.
  - Number of Units. The methods used to develop the quantities are discussed in "Level of Service" above.
  - Unit Replacement Cost. We use three sources to develop the unit cost data shown in the Inventory; actual replacement cost data provided by the client, industry standard estimating manuals, and a cost database that we have developed based upon our detailed interviews with contractors and service providers who are specialists in their respective lines of work. In addition, trends in the Producers Price Index (PPI), labor rates, and transportation costs are monitored and considered. This cost database is reviewed and updated regularly by Miller Dodson and biannually by an independent professional cost estimating firm.
  - Normal Economic Life (Yrs). The number of years that a new and properly installed item should be expected to remain in service.
  - Remaining Economic Life (Yrs). The estimated number of years before an item will need to be replaced. In "normal" conditions, this could be calculated by subtracting the age of the item from the Normal Economic Life of the item, but only rarely do physical assets age "normally". Some items may have longer or shorter lives depending on many factors such as environment, initial quality of the item, maintenance, etc.
  - Total Replacement Cost. This is calculated by multiplying the Unit Replacement Cost by the Number of Units.
  
- **REVIEW OF EXPENDITURES.** This Replacement Reserve Study should be reviewed by an accounting professional representing the Association prior to implementation.
  
- **PARTIAL FUNDING.** Items may have been included in the Replacement Reserve Inventory at less than 100 percent of their full quantity and/or replacement cost. This is done on items that will never be replaced in their entirety, but which may require periodic replacements over an extended period of time. The assumptions that provide the basis for any partial funding are noted on in the Comments section.
  
- **REMAINING ECONOMIC LIFE GREATER THAN 40 YEARS.** The calculations do not include funding for initial replacements beyond 40 years. These replacements are included in this Study for tracking and evaluation. They should be included for funding in future Studies, when they enter the 40-year window.

**SITE COMPONENTS**  
**PROJECTED REPLACEMENTS**

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
1	Asphalt Pvmnt., Seal Coat - Phase 1	sf	172,000	\$0.20	5	1	\$34,400
2	Asphalt Pvmnt., Mill & Overlay - P1	sf	172,000	\$1.70	20	5	\$292,400
3	Asphalt Pvmnt., Seal Coat - Phase 2	sf	172,000	\$0.20	5	2	\$34,400
4	Asphalt Pvmnt., Mill & Overlay - P2	sf	172,000	\$1.70	20	7	\$292,400
5	Asphalt Pvmnt., Seal Coat - Phase 3	sf	172,000	\$0.20	5	2	\$34,400
6	Asphalt Pvmnt., Mill & Overlay - P3	sf	172,000	\$1.70	20	9	\$292,400
7	Concrete Sidewalk, (3%)	sf	1,400	\$8.50	6	4	\$11,900
8	Concrete Curb (1%)	lf	400	\$30.00	6	4	\$12,000
9	Concrete Cap, (10%)	ea	5	\$750.00	10	10	\$3,750
10	Masonry Repointing (10%)	sf	1,300	\$9.50	10	20	\$12,350
11	Building Caulking (20%)	ls	1	\$3,000.00	5	none	\$3,000
12	PTL Retaining Wall (20%)	sf	70	\$32.00	5	5	\$2,240
13	Shadow Box Fencing (20%)	lf	1,500	\$23.00	5	5	\$34,500
14	Iron/Steel Fencing	lf	560	\$52.00	35	20	\$29,120
15	Stormwater Management (10%)	ls	1	\$11,500.00	10	20	\$11,500
SITE COMPONENTS - Replacement Costs - Subtotal							\$1,100,760

**SITE COMPONENTS**  
**COMMENTS**

- Components noted with a percentage (x%) are items which are expected to be replaced in-part rather than in their entirety . Since it is unknown when these components will fail or otherwise be replaced, this Study accounts for their partial replacement in a shortened Normal Economic Life.
- Components noted by Allowance were not measured or counts but were provided by the Association or estimated based on our experience with other communities or components of similar size with similar features.
- Repointing includes all masonry throughout the site, including Clubhouse, Guardhouse, Entrance Monuments, and Fence Boll
- 7/18/12: Entire Community asphalt seal coated in 2009. Sidewalk and curb work done in 2010/2011.

**SITE COMPONENTS (Cont.)**

**PROJECTED REPLACEMENTS**

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
16	Landscape Lighting (Allowance)	ls	1	\$5,000.00	5	3	\$5,000
17	Irrigation System (Allowance)	ls	1	\$10,000.00	3	2	\$10,000
18	Sign Posts (5%)	ea	7	\$1,800.00	5	5	\$12,600
19	Bridge Railing	lf	112	\$115.00	40	25	\$12,880
20	Concrete Bridge Repair (Allowance)	ls	1	\$10,000.00	15	20	\$10,000
21	Guardhouse Roof, Metal	sf	450	\$9.60	40	24	\$4,320
22	Guardhouse Windows & Door	sf	125	\$36.00	30	15	\$4,500
23	Guardhouse Cupola/Trim (Allowance)	ls	1	\$5,000.00	15	5	\$5,000
24	Entry Gates	ea	4	\$2,100.00	20	17	\$8,400
25	Gate Actuators	ea	4	\$2,300.00	15	12	\$9,200
26	Key Pad	ea	1	\$3,200.00	15	12	\$3,200
27	Foundation/Tree Plantings (Allowance)	ls	1	\$10,000.00	5	5	\$10,000

SITE COMPONENTS (Cont.) - Replacement Costs - Subtotal \$95,100

**SITE COMPONENTS (Cont.)**

**COMMENTS**

- 7/18/21: New landscape lighting 2011: Irrigation system allowance used in 2012; Entry gates & key pad replace in 2010.

**CLUBHOUSE EXTERIOR - (CH)**  
**PROJECTED REPLACEMENTS**

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
28	CH - Roof, Shingles	sf	5,400	\$4.25	25	23	\$22,950
29	CH - Gutters & Downspouts	lf	350	\$6.50	40	20	\$2,275
30	CH - Siding & Trim	ls	1	\$10,000.00	40	20	\$10,000
31	CH - Windows	sf	315	\$36.00	35	20	\$11,340
32	CH - French Doors	ea	5	\$2,400.00	35	20	\$12,000
33	CH - Small Doors	ea	3	\$850.00	35	20	\$2,550
34	CH - Deck, Stair & Ramp Railings	lf	300	\$55.00	30	5	\$16,500
35	CH - Wood Decking	sf	1,870	\$9.50	15	5	\$17,765
36	CH - Stair & Ramp Structure	sf	510	\$20.00	30	20	\$10,200
37	CH - Exterior Lights	ea	8	\$250.00	15	5	\$2,000
38	CH - Exterior Deck Furnishings	ls	1	\$2,400.00	5	2	\$2,400
39	CH - HVAC (1/3)	ea	1	\$5,500.00	4	1	\$5,500
40	CH - Hot Water Heater	ea	1	\$800.00	12	1	\$800
41	CH - Keyless Entry System	ea	1	\$6,500.00	15	12	\$6,500

CLUBHOUSE EXTERIOR - (CH) - Replacement Costs - Subtotal \$122,780

**CLUBHOUSE EXTERIOR - (CH)**  
**COMMENTS**

- The Clubhouse roofing includes small areas of metal and flat roofing. These areas are not accounted for separately, but are considered incidental to other items of work.
- 7/18/12: CH roof replaced: keyless entry system added.

**CLUBHOUSE INTERIOR**  
**PROJECTED REPLACEMENTS**

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
42	CH - Marble Flooring	sf	620	\$49.00	40	25	\$30,380
43	CH - Tile Flooring	sf	300	\$10.00	21	11	\$3,000
44	CH - Wood Flooring, Refinish	sf	2,060	\$3.00	7	7	\$6,180
45	CH - Wood Flooring, Replace	sf	2,060	\$18.00	21	21	\$37,080
46	CH - Exercise Room Flooring	sf	680	\$5.00	7	3	\$3,400
47	CH - Interior Lighting	ls	1	\$1,500.00	7	7	\$1,500
48	CH - Furnishings, Refurbish	ls	1	\$15,000.00	10	10	\$15,000
49	CH - Furnishings, Replace	ls	1	\$30,000.00	20	20	\$30,000
50	CH - Kitchen Appliances	ls	1	\$2,000.00	14	4	\$2,000
51	CH - Kitchen Counters	lf	24	\$340.00	14	4	\$8,160
52	CH - Kitchen Wares	ls	1	\$1,500.00	7	none	\$1,500
53	CH - Upper Lady's Rm Refurb	ea	1	\$3,700.00	21	11	\$3,700
54	CH - Upper Men's Rm Refurb	ea	1	\$3,600.00	21	11	\$3,600
55	CH - Lower Lady's Rm Refurb	ea	1	\$1,500.00	21	11	\$1,500
56	CH - Lower Men's Rm Refurb	ea	1	\$1,200.00	21	11	\$1,200
CLUBHOUSE INTERIOR - Replacement Costs - Subtotal							\$148,200

**CLUBHOUSE INTERIOR**  
**COMMENTS**

- 7/18/12: All CH carpet replaced with hardwood floors; CH furnishings refurbished and new furnishings added.



**RECREATIONAL COMPONENTS**  
**PROJECTED REPLACEMENTS**

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
57	Multi Function Exercise Equ.	ea	1	\$5,500.00	14	10	\$5,500
58	Life Cycle	ea	1	\$2,800.00	7	3	\$2,800
59	Treadmill	ea	1	\$5,200.00	7	3	\$5,200
60	Weight Equipment	ls	1	\$1,000.00	14	10	\$1,000
61	Main Pool Structure	sf	17,100	\$65.00	45	30	\$1,111,500
62	Main Pool White Coat	sf	17,100	\$5.25	10	7	\$89,775
63	Main Pool Coping	lf	260	\$50.00	10	7	\$13,000
64	Main Pool Waterline Tile	lf	160	\$15.00	10	7	\$2,400
65	Wading Pool Structure	sf	275	\$65.00	45	30	\$17,875
66	Wading Pool White Coat	sf	275	\$5.25	10	7	\$1,444
67	Wading Pool Coping & Tile	lf	75	\$50.00	10	7	\$3,750
68	Pool Lounges	ea	60	\$300.00	15	9	\$18,000
69	Pool Tables	ea	8	\$180.00	15	2	\$1,440
70	Pool Umbrellas	ea	8	\$325.00	15	2	\$2,600
71	Pool Chairs	ea	32	\$110.00	15	2	\$3,520
72	Pool Lounge Chair Cushion Allowance	ls	1	\$5,000.00	5	5	\$5,000
73	Guard Stands	ea	2	\$2,300.00	20	7	\$4,600
74	Pole Lights, Pool Area	ea	7	\$1,200.00	20	7	\$8,400
RECREATIONAL COMPONENTS - Replacement Costs - Subtotal							\$1,297,804

**RECREATIONAL COMPONENTS**  
**COMMENTS**

- 7/18/12: All exercise equipment replaced in 2008; both pools white coated, coping and tile in 2009; new lounge chaire cushions in 2012.

**REC. COMPONENTS, (Cont.)**  
**PROJECTED REPLACEMENTS**

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
75	Pool Pump, Main Pool, 7.5 HP	ea	1	\$1,300.00	10	10	\$1,300
76	Pool Pump, Wade Pool, 2 HP	ea	1	\$1,000.00	5	none	\$1,000
77	Pool Filters, Large	ea	4	\$1,800.00	20	5	\$7,200
78	Pool Filters, Small	ea	1	\$1,200.00	20	5	\$1,200
79	Pool Exhaust Fans	ea	2	\$1,500.00	15	1	\$3,000
80	Pool chlorinator control	ls	1	\$2,400.00	10	2	\$2,400
81	Pool Deck Concrete (1/3)	sf	5,000	\$11.00	10	5	\$55,000
82	Pool Deck Coating	sf	15,000	\$1.50	10	5	\$22,500
83	Pool Railing, 4'	lf	360	\$34.00	20	7	\$12,240
84	Tennis Court, Resurface	ea	2	\$18,000.00	20	16	\$36,000
85	Tennis Court, Color Coat	ea	2	\$5,000.00	10	6	\$10,000
86	Tennis Court, Net & Posts	ea	2	\$2,600.00	20	16	\$5,200
87	Tennis Court, 10' Fence	lf	360	\$24.00	35	23	\$8,640
88	Tennis Court, 4' Fence	lf	150	\$18.00	35	23	\$2,700
89	Tennis Court Light Poles	ea	9	\$1,500.00	30	18	\$13,500
90	Tennis Court Lights	ea	12	\$700.00	15	3	\$8,400
91	Tennis Court Net	ea	2	\$700.00	5	none	\$1,400
92	Tennis Court Screen	sf	2,160	\$2.00	10	6	\$4,320
93	Exterior Benches	ea	5	\$600.00	20	20	\$3,000
REC. COMPONENTS, (Cont.) - Replacement Costs - Subtotal							\$199,000

**REC. COMPONENTS, (Cont.)**  
**COMMENTS**

- 7/18/12: Replaced main pool pump in 2012; resurfaced tennis courts in 2008; and added new benches in 2011.

## **PROJECTED ANNUAL REPLACEMENTS GENERAL INFORMATION**

CALENDAR OF ANNUAL REPLACEMENTS. The 93 Projected Replacements in the Kingsbridge HOA Replacement Reserve Inventory whose replacement is scheduled to be funded from Replacement Reserves are broken down on a year-by-year basis, beginning on Page C2.

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

- **REVISIONS.** Revisions will be made to the Replacement Reserve Analysis and Replacement Reserve Inventory in accordance with the written instructions of the Board of Directors. No additional charge is incurred for the first revision, if requested in writing within three months of the date of the Replacement Reserve Study. It is our policy to provide revisions in electronic (Adobe PDF) format only.
- **TAX CODE.** The United States Tax Code grants favorable tax status to a common interest development (CID) meeting certain guidelines for their Replacement Reserve. If a CID files their taxes as a 'Corporation' on Form 1120 (IRC Section 277), these guidelines typically require maintenance activities, partial replacements, minor replacements, capital improvements, and one-time only replacements to be excluded from Reserves. A CID cannot commingle planning for maintenance activities with capital replacement activities in the Reserves (Revenue Ruling 75-370). Funds for maintenance activities and capital replacements activities must be held in separate accounts. If a CID files taxes as an "Exempt Homeowners Association" using Form 1120H (IRC Section 528), the CID does not have to segregate these activities. However, because the CID may elect to change their method of filing from year to year within the Study Period, we advise using the more restrictive approach. We further recommend that the CID consult with their Accountant and consider creating separate and independent accounts and reserves for large maintenance items, such as painting.
- **CONFLICT OF INTEREST.** Neither Miller - Dodson Associates nor the Reserve Analyst has any prior or existing relationship with this Association which would represent a real or perceived conflict of interest.
- **RELIANCE ON DATA PROVIDED BY THE CLIENT.** Information provided by an official representative of the Association regarding financial, physical conditions, quality, or historical issues is deemed reliable.
- **INTENT.** This Replacement Reserve Study is a reflection of the information provided by the Association and the visual evaluations of the Analyst. It has been prepared for the sole use of the Association and is not for the purpose of performing an audit, quality/forensic analyses, or background checks of historical records.
- **PREVIOUS REPLACEMENTS.** Information provided to Miller - Dodson Associates regarding prior replacements is considered to be accurate and reliable. Our visual evaluation is not a project audit or quality inspection.
- **UPDATING.** In the first two or possibly three years after the completion of a Level One Replacement Reserve Study, we recommend the Association review and revise the Replacement Reserve Analysis and Inventory annually to take into account replacements which have occurred and known changes in replacement costs. This can frequently be handled as a Level Two or Level Three Study (as defined by the Community Associations Institute), unless the Association has completed major replacement projects. A full analysis (Level One) based on a comprehensive visual evaluation of the site should be accomplished every three to five years or after each major replacement project.
- **EXPERIENCE WITH FUTURE REPLACEMENTS.** The Calendar of Annual Projected Replacements, lists replacements we have projected to occur over the next thirty years, begins on Page C2. Actual experience in replacing the items may differ significantly from the cost estimates and time frames shown because of conditions beyond our control. These differences may be caused by maintenance practices, inflation, variations in pricing and market conditions, future technological developments, regulatory actions, acts of God, and luck. Some items may function normally during our visual evaluation and then fail without notice.
- **REVIEW OF THE REPLACEMENT RESERVE STUDY.** For this study to be effective, it should be reviewed by the Kingsbridge HOA Board of Directors, those responsible for the management of the items included in the Replacement Reserve Inventory, and the accounting professionals employed by the Association.

## PROJECTED REPLACEMENTS - YEARS 1 TO 6

[illegible]

## PROJECTED REPLACEMENTS - YEARS 7 TO 12

Item	2019	\$
1	Asphalt Pvmnt., Seal Coat - F	\$34,400
85	Tennis Court, Color Coat	\$10,000
92	Tennis Court Screen	\$4,320
Total Scheduled Replacements		\$48,720

Item	2020	\$
3	Asphalt Pvmnt., Seal Coat - F	\$34,400
4	Asphalt Pvmnt., Mill & Overla	\$292,400
5	Asphalt Pvmnt., Seal Coat - F	\$34,400
38	CH - Exterior Deck Furnishir	\$2,400
44	CH - Wood Flooring, Refinis	\$6,180
47	CH - Interior Lighting	\$1,500
52	CH - Kitchen Wares	\$1,500
62	Main Pool White Coat	\$89,775
63	Main Pool Coping	\$13,000
64	Main Pool Waterline Tile	\$2,400
66	Wading Pool White Coat	\$1,444
67	Wading Pool Coping & Tile	\$3,750
73	Guard Stands	\$4,600
74	Pole Lights, Pool Area	\$8,400
83	Pool Railing, 4'	\$12,240
Total Scheduled Replacements		\$508,389

Item	2021	\$
16	Landscape Lighting (Allowar	\$5,000
17	Irrigation System (Allowance	\$10,000
Total Scheduled Replacements		\$15,000

Item	2022	\$
6	Asphalt Pvmnt., Mill & Overla	\$292,400
39	CH - HVAC (1/3)	\$5,500
68	Pool Lounges	\$18,000
Total Scheduled Replacements		\$315,900

Item	2023	\$
7	Concrete Sidewalk, (3%)	\$11,900
8	Concrete Curb (1%)	\$12,000
9	Concrete Cap, (10%)	\$3,750
11	Building Caulking (20%)	\$3,000
12	PTL Retaining Wall (20%)	\$2,240
13	Shadow Box Fencing (20%)	\$34,500
18	Sign Posts (5%)	\$12,600
27	Foundation/Tree Plantings (.	\$10,000
46	CH - Exercise Room Floorin	\$3,400
48	CH - Furnishings, Refurbish	\$15,000
57	Multi Function Exercise Equ	\$5,500
58	Life Cycle	\$2,800
59	Treadmill	\$5,200
60	Weight Equipment	\$1,000
72	Pool Lounge Chair Cushion	\$5,000
75	Pool Pump, Main Pool, 7.5	\$1,300
76	Pool Pump, Wade Pool, 2 H	\$1,000
91	Tennis Court Net	\$1,400
Total Scheduled Replacements		\$131,590

Item	2024	\$
1	Asphalt Pvmnt., Seal Coat - F	\$34,400
17	Irrigation System (Allowance	\$10,000
43	CH - Tile Flooring	\$3,000
53	CH - Upper Lady's Rm Refu	\$3,700
54	CH - Upper Men's Rm Refur	\$3,600
55	CH - Lower Lady's Rm Refu	\$1,500
56	CH - Lower Men's Rm Refur	\$1,200
Total Scheduled Replacements		\$57,400

### PROJECTED REPLACEMENTS - YEARS 13 TO 18

2025		
Item		\$
3	Asphalt Pvmnt., Seal Coat - F	\$34,400
5	Asphalt Pvmnt., Seal Coat - F	\$34,400
25	Gate Actuators	\$9,200
26	Key Pad	\$3,200
38	CH - Exterior Deck Furnishir	\$2,400
41	CH - Keyless Entry System	\$6,500
80	Pool chlorinator control	\$2,400
Total Scheduled Replacements		\$92,500

2026		
Item		\$
16	Landscape Lighting (Allowar	\$5,000
39	CH - HVAC (1/3)	\$5,500
40	CH - Hot Water Heater	\$800
Total Scheduled Replacements		\$11,300

2027		
Item		\$
17	Irrigation System (Allowance	\$10,000
44	CH - Wood Flooring, Refinis	\$6,180
47	CH - Interior Lighting	\$1,500
52	CH - Kitchen Wares	\$1,500
Total Scheduled Replacements		\$19,180

2028		
Item		\$
11	Building Caulking (20%)	\$3,000
12	PTL Retaining Wall (20%)	\$2,240
13	Shadow Box Fencing (20%)	\$34,500
18	Sign Posts (5%)	\$12,600
22	Guardhouse Windows & Door	\$4,500
27	Foundation/Tree Plantings (	\$10,000
72	Pool Lounge Chair Cushion	\$5,000
76	Pool Pump, Wade Pool, 2 H	\$1,000
81	Pool Deck Concrete (1/3)	\$55,000
82	Pool Deck Coating	\$22,500
91	Tennis Court Net	\$1,400
Total Scheduled Replacements		\$151,740

2029		
Item		\$
1	Asphalt Pvmnt., Seal Coat - F	\$34,400
7	Concrete Sidewalk, (3%)	\$11,900
8	Concrete Curb (1%)	\$12,000
79	Pool Exhaust Fans	\$3,000
84	Tennis Court, Resurface	\$36,000
85	Tennis Court, Color Coat	\$10,000
86	Tennis Court, Net & Posts	\$5,200
92	Tennis Court Screen	\$4,320
Total Scheduled Replacements		\$116,820

2030		
Item		\$
3	Asphalt Pvmnt., Seal Coat - F	\$34,400
5	Asphalt Pvmnt., Seal Coat - F	\$34,400
17	Irrigation System (Allowance	\$10,000
24	Entry Gates	\$8,400
38	CH - Exterior Deck Furnishir	\$2,400
39	CH - HVAC (1/3)	\$5,500
46	CH - Exercise Room Floorin	\$3,400
58	Life Cycle	\$2,800
59	Treadmill	\$5,200
62	Main Pool White Coat	\$89,775
63	Main Pool Coping	\$13,000
64	Main Pool Waterline Tile	\$2,400
66	Wading Pool White Coat	\$1,444
67	Wading Pool Coping & Tile	\$3,750
69	Pool Tables	\$1,440
70	Pool Umbrellas	\$2,600
71	Pool Chairs	\$3,520
Total Scheduled Replacements		\$224,429

**PROJECTED REPLACEMENTS - YEARS 19 TO 24**

Item	2031	\$	Item	2032	\$	Item	2033	\$
16	Landscape Lighting (Allowar	\$5,000				9	Concrete Cap, (10%)	\$3,750
50	CH - Kitchen Appliances	\$2,000				10	Masonry Repointing (10%)	\$12,350
51	CH - Kitchen Counters	\$8,160				11	Building Caulking (20%)	\$3,000
89	Tennis Court Light Poles	\$13,500				12	PTL Retaining Wall (20%)	\$2,240
90	Tennis Court Lights	\$8,400				13	Shadow Box Fencing (20%)	\$34,500
						14	Iron/Steel Fencing	\$29,120
						15	Stormwater Management (1	\$11,500
						17	Irrigation System (Allowance	\$10,000
						18	Sign Posts (5%)	\$12,600
						20	Concrete Bridge Repair (Allc	\$10,000
						23	Guardhouse Cupola/Trim (A	\$5,000
						27	Foundation/Tree Plantings (.	\$10,000
						29	CH - Gutters & Downspouts	\$2,275
						30	CH - Siding & Trim	\$10,000
						31	CH - Windows	\$11,340
						32	CH - French Doors	\$12,000
						33	CH - Small Doors	\$2,550
						35	CH - Wood Decking	\$17,765
						36	CH - Stair & Ramp Structure	\$10,200
						37	CH - Exterior Lights	\$2,000
						48	CH - Furnishings, Refurbish	\$15,000
						49	CH - Furnishings, Replace	\$30,000
						72	Pool Lounge Chair Cushion	\$5,000
						75	Pool Pump, Main Pool, 7.5	\$1,300
						76	Pool Pump, Wade Pool, 2 H	\$1,000
						91	Tennis Court Net	\$1,400
						93	Exterior Benches	\$3,000
Total Scheduled Replacements		\$37,060	No Scheduled Replacements			Total Scheduled Replacements		\$268,890
Item	2034	\$	Item	2035	\$	Item	2036	\$
1	Asphalt Pvmnt., Seal Coat - F	\$34,400	3	Asphalt Pvmnt., Seal Coat - F	\$34,400	16	Landscape Lighting (Allowar	\$5,000
39	CH - HVAC (1/3)	\$5,500	5	Asphalt Pvmnt., Seal Coat - F	\$34,400	17	Irrigation System (Allowance	\$10,000
44	CH - Wood Flooring, Refinis	\$6,180	7	Concrete Sidewalk, (3%)	\$11,900	28	CH - Roof, Shingles	\$22,950
45	CH - Wood Flooring, Replac	\$37,080	8	Concrete Curb (1%)	\$12,000	87	Tennis Court, 10' Fence	\$8,640
47	CH - Interior Lighting	\$1,500	38	CH - Exterior Deck Furnishir	\$2,400	88	Tennis Court, 4' Fence	\$2,700
52	CH - Kitchen Wares	\$1,500	80	Pool chlorinator control	\$2,400			
Total Scheduled Replacements		\$86,160	Total Scheduled Replacements		\$97,500	Total Scheduled Replacements		\$49,290

### PROJECTED REPLACEMENTS - YEARS 25 TO 30

2037		
21	Guardhouse Roof, Metal	\$4,320
46	CH - Exercise Room Floorin	\$3,400
57	Multi Function Exercise Equ	\$5,500
58	Life Cycle	\$2,800
59	Treadmill	\$5,200
60	Weight Equipment	\$1,000
68	Pool Lounges	\$18,000
Total Scheduled Replacements		\$40,220
2038		
2	Asphalt Pvmnt., Mill & Overla	\$292,400
11	Building Caulking (20%)	\$3,000
12	PTL Retaining Wall (20%)	\$2,240
13	Shadow Box Fencing (20%)	\$34,500
18	Sign Posts (5%)	\$12,600
19	Bridge Railing	\$12,880
27	Foundation/Tree Plantings (	\$10,000
39	CH - HVAC (1/3)	\$5,500
40	CH - Hot Water Heater	\$800
42	CH - Marble Flooring	\$30,380
72	Pool Lounge Chair Cushion	\$5,000
76	Pool Pump, Wade Pool, 2 H	\$1,000
77	Pool Filters, Large	\$7,200
78	Pool Filters, Small	\$1,200
81	Pool Deck Concrete (1/3)	\$55,000
82	Pool Deck Coating	\$22,500
91	Tennis Court Net	\$1,400
Total Scheduled Replacements		\$497,600
2039		
1	Asphalt Pvmnt., Seal Coat - F	\$34,400
17	Irrigation System (Allowance	\$10,000
85	Tennis Court, Color Coat	\$10,000
92	Tennis Court Screen	\$4,320
Total Scheduled Replacements		\$58,720
2040		
3	Asphalt Pvmnt., Seal Coat - F	\$34,400
4	Asphalt Pvmnt., Mill & Overla	\$292,400
5	Asphalt Pvmnt., Seal Coat - F	\$34,400
25	Gate Actuators	\$9,200
26	Key Pad	\$3,200
38	CH - Exterior Deck Furnishir	\$2,400
41	CH - Keyless Entry System	\$6,500
62	Main Pool White Coat	\$89,775
63	Main Pool Coping	\$13,000
64	Main Pool Waterline Tile	\$2,400
66	Wading Pool White Coat	\$1,444
67	Wading Pool Coping & Tile	\$3,750
73	Guard Stands	\$4,600
74	Pole Lights, Pool Area	\$8,400
83	Pool Railing, 4'	\$12,240
Total Scheduled Replacements		\$518,109
2041		
7	Concrete Sidewalk, (3%)	\$11,900
8	Concrete Curb (1%)	\$12,000
16	Landscape Lighting (Allowar	\$5,000
44	CH - Wood Flooring, Refinis	\$6,180
47	CH - Interior Lighting	\$1,500
52	CH - Kitchen Wares	\$1,500
Total Scheduled Replacements		\$38,080
2042		
6	Asphalt Pvmnt., Mill & Overla	\$292,400
17	Irrigation System (Allowance	\$10,000
39	CH - HVAC (1/3)	\$5,500
Total Scheduled Replacements		\$307,900



## CONDITION ASSESSMENT

**General Comments.** Miller - Dodson Associates conducted a Reserve Study at Kingsbridge Homeowners Association in July 18, 2012. Kingsbridge Homeowners Association is in average condition for a community constructed in 1997. A review of the Replacement Reserve Inventory will show that we are anticipating most of the components achieving their normal economic lives.

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

### SITE COMPONENTS

**Asphalt Pavement.** The site includes asphalt pavement for vehicle access and parking. In general, the asphalt pavement is in good condition with limited cracking, alligating, or deterioration. The Association maintains an inventory of 516,000 square feet of asphalt pavement.

As a rule of thumb, asphalt should be overlaid when approximately five percent of the surface area has become cracked or has failed. The normal service life of asphalt pavement is typically 18 to 20 years.

In order to maintain the condition of the pavement throughout the community and to insure the longest life of the asphalt, we recommend a systematic and comprehensive maintenance program that includes:

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

Pricing used in the study is based on a recent contract for a two inch overlay and reflects the current local market.



Asphalt Cracking



Typical Curb

**Curb and Gutter.** The Association maintains an inventory of 40,000 linear feet of concrete curb and gutter. All components have been well maintained and are in excellent condition. Any problems noted are in the form of minor cracks, spalling or settlement that can be repaired by continued periodic replacement of broken sections

Because it is highly unlikely that all of the community's concrete curb and gutter sections will fail and require replacement in the period of the study, we have programmed funds for the replacement of one percent of the inventory every six years to reflect the incremental nature of this work.

**Concrete Flatwork.** The concrete flatwork includes the community sidewalks. The Association maintains an inventory of approximately 46,667 square feet of concrete flatwork. The overall condition of the concrete flatwork is good.

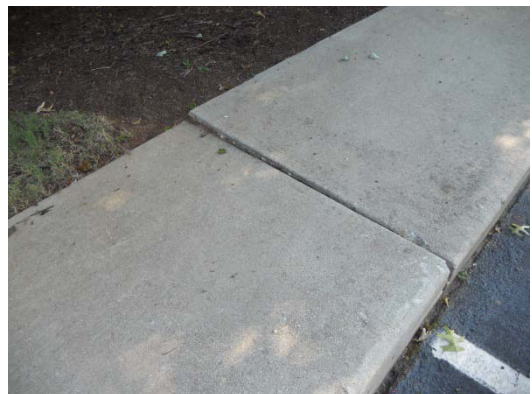
The standards we used for recommending replacement are as follows:

1. Trip hazard, 0.5 inch height difference.
2. Severe cracking.
3. Severe spalling
4. Uneven riser heights on steps.
5. Steps with risers in excess of 8.25 inches.

Because it is highly unlikely that all of the community's concrete components will fail and require replacement in the period of the study, we have programmed funds for the replacement of three percent of the inventory every six years to reflect the incremental nature of this work.



Cracked Flatwork Outside Tennis Court



Trip Hazard in Parking Lot

**Masonry Monuments and Building Facades.** Brick masonry walls have been erected as entrance monuments to the community and are used for the exteriors of the common buildings. In addition, there are many brick fence bollards throughout the community. Because brickwork has a very long life expectancy, we have excluded replacement of these brick structures. We have, however included funding for the periodic repointing of mortar joints as exposure to weather over an extended period will wash lime out of the mortar and weaken the joint. Therefore, periodic repointing of these joints and replacement of damaged brick is required to extend the life of these components. Unless the wall is damaged by settlement, this work is typically not required until the wall is approximately 35-40 years old. At that point, we expect that approximately 10% of the surface area will require repair and that an additional 10 % will require repair every 10 years thereafter.



Building Facade



Wood Retaining Wall

**Pressure Treated Wood Retaining Wall.** The Association maintains an inventory of approximately 70 square feet of wood retaining wall. The general condition of the retaining wall is fair. The defects noted include the following:

- **Bowing.** We found some areas where sections of the retaining wall are bowing outward. Bowing occurs as the result of moderate to severe loading of the wall by the material being supported. If the bowing is allowed to continue, eventually it will lead to the failure of the retaining wall. Correcting bowing requires replacement of the sections of retaining wall and installation of better drainage materials behind the wall.
- **Leaning.** We found some areas where sections of the retaining wall are leaning. Leaning occurs when the pressure of the material being held in place by the retaining wall is sufficient to cause the wall to shift away from the vertical. Once a retaining wall starts to lean, it is at risk of failing and must be replaced.
- **Rot.** We found a number of areas where sections of the retaining wall have mild rot. Once rotting occurs, those effected sections must be replaced.

When it becomes necessary to replace the wall, we recommend the Association consider one of the segmental block retaining wall systems instead of the wood construction. These systems are impervious to decay, which occurs even with the pressure treated wood systems. If over time the wall experiences movement, sections of the wall can be re-stacked at a very small portion of the cost of a new wall. The wall has an initial cost 15 to 30 percent greater than wood wall but once installed, they have a service life of 40 years or more.

**Wood Board Fencing.** Wood board fencing is installed as privacy fencing along the property perimeter in several locations in the community. The Association maintains an inventory of 7,500 linear feet of wood board fencing. The overall condition of the fencing is good with only a limited number of deficiencies, such as loose boards or damaged fence posts.





Wood Fence



Metal Fence with Bollards

**Metal Picket Fencing.** The Association maintains an inventory of approximately 560 linear feet of vertical rail fencing. The overall condition of the fencing is good with only a limited number of deficiencies, such as loose or broken rails or missing post caps.

**Bridge Culverts.** There are two bridge culverts being maintained by the Association. These are two-cell pipe culverts. It is assumed that these will be inspected based on Federal and State guidelines, and that the Association will obtain these reports from the responsible municipality as they become available. See <http://www.dot.state.sc.us/> for additional information.

However, during our inspection, we did find that the fill around the upstream headwall and wingwalls of the culvert located off White Crescent Lane was in need of regrading and erosion countermeasures. Also, the stream bed at the upstream end of the Kingsgate Court was somewhat scoured.

Maintaining the soil around and over these structures is imperative, and a proactive approach to the maintenance of the grounds, roadways, and sidewalks in these areas will insure the maximum useful life for these structures. Please note that any work performed to or around these structures should be designed, approved, and constricted by qualified personnel.



Kingsgate Bridge



White Crescent Lane Bridge

**Guard House.** The guard house roof; copula and trim tuckpointing brick siding; and windows and doors are in good condition and their replacement have been provided for.



## **CLUBHOUSE EXTERIOR**

**Asphalt Shingle Roofing.** The asphalt shingle roofs are in good condition. We have estimated the remaining useful life of the roofs based on the conditions seen at the site as well as the age of the roofs. We have assumed that when the roofs eventually will require replacement, all roofs will be replaced with 25- year roofs. We have assumed that the gutters and downspouts will be replaced when the roofs are replaced.

**Windows and Door.** The club house windows and doors are in good condition. We have provided for their replacement.

**Wood Decks.** Wood decks and railings can be difficult to maintain. By design, a large portion of the decks and railings contain horizontal surfaces. Water tends to stand on the surfaces and soak into the wood. As the sun dries and pulls the moisture out of the wood, the wood shrinks and cracks. The wood decking material, as well as the handrails, should be repaired or replaced and then sealed/painted every two to three years.

We have included three separate items in the Reserve Analysis for the wood decks to reflect their different service lives; the deck surface, the deck structure, and the deck railings. We have assumed a service life of 15 years for the deck surfaces and railings, and 30 years for the deck railings.

**HVAC.** There are three HVAC units that serve the building. It is unlikely that all three will fail at the same time so we have spaced their replacement every four years to reflect that replacement cycle.



Club House Front



Clubhouse Rear





HVAC Units



Air Handler



Steps to Deck



Deck and Furniture

## BUILDING INTERIOR

**Club House Contents.** The inventory of the Club House contents is as comprehensive as practical and includes the furniture, fixtures and equipment that were noted during the site visit. Items have been programmed for replacement based upon the normal economic life and with a value that is comparable to the existing components. At the time of our visit the club house interior was undergoing renovation to include replacing all carpet with wood flooring and refinishing the existing wood flooring. The wood trim and interior doors in the club house are excluded as a long-lived item as these typically do not wear out.



Interior Renovation



Interior Renovation



Appliances



Exercise Room



Rest Room



Furniture - Typical

## RECREATIONAL COMPONENTS

**Swimming Pool.** The community operates an outdoor pool and wading pool of concrete construction with a concrete deck. The concrete deck is coated. Listed below are the major components of the pool facilities:

- **Pool Shell.** The shell for the swimming pool is in good condition. Pool shells normally have a finite life of approximately 45 years. At that time it may not be necessary to replace the entire structure. However, it is prudent to anticipate a major expenditure for replacement of underground lines and sections of the pool. Based on our research, we have found it to be prudent to program \$65 per square foot of pool surface to cover these needs.
- **Pool Deck.** The pool has a concrete deck. The overall condition of the deck is good. Because it is highly unlikely that all of the community's concrete pool deck sections will fail and require replacement at the same time, we have divided the deck into three equal components in the Reserve Analysis and have spread their replacement over a thirty year period.
- **Pool Deck Coating.** The concrete pool deck is coated with an elastomeric coating. The coating is in good condition. We have assumed a service life for the coating of ten years.
- **Whitecoat.** The pool whitecoat is in fair condition. We have assumed a service life of 10 years for the pool whitecoat.



- **Waterline Tile.** The waterline tile is in fair condition. We have assumed that the waterline tile will be replaced or restored when the pool is whitecoated.
- **Pump and Filter System.** The filter system is in good operating condition. We have assumed a service life of 20 years for the filter system, and 10 years for the pump.



Main Pool



Wading Pool



Pump Room



Pump Room

**Tennis Courts.** The community maintains two tennis courts. The overall condition of these courts is fair. Listed below are the major components of the tennis court facilities.

- **Asphalt Pavement.** The asphalt pavement for the tennis court is in fair condition with some cracks and splits that extend into the playing surface. We have assumed a service life of 20 years for the asphalt.
- **Color Coat.** The color coat on the tennis courts is in fair condition with some major defects in its finish.
- **Fencing.** The fencing installed around the tennis courts is chain link and in good condition. There were no significant defects. We have assumed that the fencing will be replaced when the asphalt pavement is replaced.
- **Net Posts.** The net posts are in good condition. We have assumed that the new posts will be replaced when the asphalt pavement is replaced.
- **Wind Screen.** The wind screen installed on the fencing at the tennis courts is in good condition.



- Lighting System. The tennis court lighting system is in fair condition.



Tennis Court



Cracked Playing Surface

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

End of Condition Assessment

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## CASH FLOW METHOD ACCOUNTING SUMMARY

This Kingsbridge HOA - Cash Flow Method Accounting Summary is an attachment to the Kingsbridge HOA - Replacement Reserve Study dated July 18, 2012 and is for use by accounting and reserve professionals experienced in Association funding and accounting principles. This Summary consists of four reports, the 2013, 2014, and 2015 Cash Flow Method Category Funding Reports (3) and a Three-Year Replacement Funding Report.

- CASH FLOW METHOD CATEGORY FUNDING REPORT, 2013, 2014, and 2015. Each of the 93 Projected Replacements listed in the Kingsbridge HOA Replacement Reserve Inventory has been assigned to one of 6 categories. The following information is summarized by category in each report:
  - Normal Economic Life and Remaining Economic Life of the Projected Replacements.
  - Cost of all Scheduled Replacements in each category.
  - Replacement Reserves on Deposit allocated to the category at the beginning and end of the report period.
  - Cost of Projected Replacements in the report period.
  - Recommended Replacement Reserve Funding allocated to the category during the report period as calculated by the Cash Flow Method.
- THREE-YEAR REPLACEMENT FUNDING REPORT. This report details the allocation of the \$245,000 Beginning Balance (at the start of the Study Year) and the \$536,528 of additional Replacement Reserve Funding in 2013 through 2015 (as calculated in the Replacement Reserve Analysis) to each of the 93 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made using Chronological Allocation, a method developed by Miller Dodson Associates, Inc., and discussed below. The calculated data includes:
  - Identification and estimated cost of each Projected Replacement schedule in years 2013 through 2015.
  - Allocation of the \$245,000 Beginning Balance to the Projected Replacements by Chronological Allocation.
  - Allocation of the \$536,528 of additional Replacement Reserve Funding recommended in the Replacement Reserve Analysis in years 2013 through 2015, by Chronological Allocation.
- CHRONOLOGICAL ALLOCATION. Chronological Allocation assigns Replacement Reserves to Projected Replacements on a "first come, first serve" basis in keeping with the basic philosophy of the Cash Flow Method. The Chronological Allocation methodology is outlined below.
  - The first step is the allocation of the \$245,000 Beginning Balance to the Projected Replacements in the Study Year. Remaining unallocated funds are next allocated to the Projected Replacements in subsequent years in chronological order until the total of Projected Replacements in the next year is greater than the unallocated funds. Projected Replacements in this year are partially funded with each replacement receiving percentage funding. The percentage of funding is calculated by dividing the unallocated funds by the total of Projected Replacements in the partially funded year.

At Kingsbridge HOA the Beginning Balance funds all Scheduled Replacements in the Study Year through 2017 and provides partial funding (9%) of replacements scheduled in 2018.
  - The next step is the allocation of the \$178,843 of 2013 Cash Flow Method Reserve Funding calculated in the Replacement Reserve Analysis. These funds are first allocated to fund the partially funded Projected Replacements and then to subsequent years in chronological order as outlined above.

At Kingsbridge HOA the Beginning Balance and the 2013 Replacement Reserve Funding, funds replacements through 2017 and partial funds (44.2%) replacements in 2018.
  - Allocations of the 2014 and 2015 Reserve Funding are done using the same methodology.
  - The Three-Year Replacement Funding Report details component by component allocations made by Chronological Allocation.

## 2013 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 93 Projected Replacements included in the Kingsbridge HOA Replacement Reserve Inventory has been assigned to one of the 6 categories listed in TABLE CF-1 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- A Beginning Balance of \$245,000 as of the first day of the Study Year, January 1, 2013.
- Total reserve funding (including the Beginning Balance) of \$423,843 in the Study Year.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2013 being accomplished in 2013 at a cost of \$6,900.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

**2013 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF-1**

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2013 BEGINNING BALANCE	2013 RESERVE FUNDING	2013 PROJECTED REPLACEMENTS	2013 END OF YEAR BALANCE
SITE COMPONENTS	5 to 35 years	0 to 20 years	\$1,100,760	\$159,300	\$117,671	(\$3,000)	\$273,971
SITE COMPONENTS (Cont.)	3 to 40 years	2 to 25 years	\$95,100	\$18,306	\$13,321		\$31,627
CLUBHOUSE EXTERIOR - (CH)	4 to 40 years	1 to 23 years	\$122,780	\$12,372	\$14,797		\$27,168
CLUBHOUSE INTERIOR	7 to 40 years	0 to 25 years	\$148,200	\$15,060		(\$1,500)	\$13,560
RECREATIONAL COMPONENTS	5 to 45 years	2 to 30 years	\$1,297,804	\$16,000	\$1,771		\$17,771
REC. COMPONENTS, (Cont.)	5 to 35 years	0 to 23 years	\$199,000	\$23,963	\$31,283	(\$2,400)	\$52,846

## 2014 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 93 Projected Replacements included in the Kingsbridge HOA Replacement Reserve Inventory has been assigned to one of the 6 categories listed in TABLE CF-2 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$416,943 on January 1, 2014.
- Total reserve funding (including the Beginning Balance) of \$602,685 in 2013 through 2014.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2014 being  
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If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

### 2014 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF-2

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2014 BEGINNING BALANCE	2014 RESERVE FUNDING	2014 PROJECTED REPLACEMENTS	2014 END OF YEAR BALANCE
SITE COMPONENTS	5 to 35 years	0 to 19 years	\$1,100,760	\$273,971	\$117,671	(\$34,400)	\$357,242
SITE COMPONENTS (Cont.)	3 to 40 years	1 to 24 years	\$95,100	\$31,627	\$13,321		\$44,947
CLUBHOUSE EXTERIOR - (CH)	4 to 40 years	0 to 22 years	\$122,780	\$27,168	\$14,797	(\$6,300)	\$35,665
CLUBHOUSE INTERIOR	7 to 40 years	2 to 24 years	\$148,200	\$13,560			\$13,560
RECREATIONAL COMPONENTS	5 to 45 years	1 to 29 years	\$1,297,804	\$17,771	\$1,771		\$19,542
REC. COMPONENTS, (Cont.)	5 to 35 years	0 to 22 years	\$199,000	\$52,846	\$31,283	(\$3,000)	\$81,129

## 2015 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 93 Projected Replacements included in the Kingsbridge HOA Replacement Reserve Inventory has been assigned to one of the 6 categories listed in TABLE CF-3 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$552,085 on January 1, 2015.
- Total Replacement Reserve funding (including the Beginning Balance) of \$781,528 in 2013 to 2015.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2015 being accomplished in 2015 at a cost of \$91,160.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

### 2015 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF-3

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2015 BEGINNING BALANCE	2015 RESERVE FUNDING	2015 PROJECTED REPLACEMENTS	2015 END OF YEAR BALANCE
SITE COMPONENTS	5 to 35 years	0 to 18 years	\$1,100,760	\$357,242	\$121,453	(\$68,800)	\$409,895
SITE COMPONENTS (Cont.)	3 to 40 years	0 to 23 years	\$95,100	\$44,947	\$7,653	(\$10,000)	\$42,600
CLUBHOUSE EXTERIOR - (CH)	4 to 40 years	0 to 21 years	\$122,780	\$35,665	\$8,629	(\$2,400)	\$41,894
CLUBHOUSE INTERIOR	7 to 40 years	1 to 23 years	\$148,200	\$13,560	\$494		\$14,054
RECREATIONAL COMPONENTS	5 to 45 years	0 to 28 years	\$1,297,804	\$19,542	\$7,662	(\$7,560)	\$19,645
REC. COMPONENTS, (Cont.)	5 to 35 years	0 to 21 years	\$199,000	\$81,129	\$32,950	(\$2,400)	\$111,679

## CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE 4 below details the allocation of the \$245,000 Beginning Balance, as reported by the Association and the \$536,528 of Replacement Reserve Funding calculated by the Cash Flow Method in 2013 to 2015, to the 93 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made by Chronological Allocation, a method developed by Miller Dodson Associates, Inc., and outlined on Page CF-1. The accuracy of the allocations is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$245,000 on January 1, 2013.
- Replacement Reserves on Deposit totaling \$416,943 on January 1, 2014.
- Replacement Reserves on Deposit totaling \$552,085 on January 1, 2015.
- Total Replacement Reserve funding (including the Beginning Balance) of \$781,528 in 2013 to 2015.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2013 to 2015 being accomplished as scheduled in the Replacement Reserve Inventory at a cost of \$141,760.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates, Inc., to arrange for an update of the Replacement Reserve Study.

### CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CF-4

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2013 Reserve Funding	2013 Projected Replacements	2013 End of Year Balance	2014 Reserve Funding	2014 Projected Replacements	2014 End of Year Balance	2015 Reserve Funding	2015 Projected Replacements	2015 End of Year Balance
SITE COMPONENTS												
1	Asphalt Pvmnt., Seal Coat - Phase 1	34,400	34,400			34,400		(34,400)		34,400		34,400
2	Asphalt Pvmnt., Mill & Overlay - P1	292,400	25,706	103,592		129,298	103,592		232,890	59,510		292,400
3	Asphalt Pvmnt., Seal Coat - Phase 2	34,400	34,400			34,400			34,400	1,853	(34,400)	1,853
4	Asphalt Pvmnt., Mill & Overlay - P2	292,400								15,749		15,749
5	Asphalt Pvmnt., Seal Coat - Phase 3	34,400	34,400			34,400			34,400	1,853	(34,400)	1,853
6	Asphalt Pvmnt., Mill & Overlay - P3	292,400										
7	Concrete Sidewalk, (3%)	11,900	11,900			11,900			11,900			11,900
8	Concrete Curb (1%)	12,000	12,000			12,000			12,000			12,000
9	Concrete Cap, (10%)	3,750										
10	Masonry Repointing (10%)	12,350										
11	Building Caulking (20%)	3,000	3,264	1,063	(3,000)	1,327	1,063		2,389	611		3,000
12	PTL Retaining Wall (20%)	2,240	197	794		991	794		1,784	456		2,240
13	Shadow Box Fencing (20%)	34,500	3,033	12,223		15,256	12,223		27,478	7,022		34,500
14	Iron/Steel Fencing	29,120										
15	Stormwater Management (10%)	11,500										
SITE COMPONENTS (Cont.)												
16	Landscape Lighting (Allowance)	5,000	5,000			5,000			5,000			5,000
17	Irrigation System (Allowance)	10,000	10,879	3,543		14,422	3,543		17,965	2,035	(10,000)	10,000
18	Sign Posts (5%)	12,600	1,108	4,464		5,572	4,464		10,036	2,564		12,600
19	Bridge Railing	12,880										
20	Concrete Bridge Repair (Allowance)	10,000										
21	Guardhouse Roof, Metal	4,320										
22	Guardhouse Windows & Door	4,500										
23	Guardhouse Cupola/Trim (Allowance)	5,000	440	1,771		2,211	1,771		3,982	1,018		5,000
24	Entry Gates	8,400										
25	Gate Actuators	9,200										
26	Key Pad	3,200										
27	Foundation/Tree Plantings (Allowance)	10,000	879	3,543		4,422	3,543		7,965	2,035		10,000
CLUBHOUSE EXTERIOR - (CH)												
28	CH - Roof, Shingles	22,950										
29	CH - Gutters & Downspouts	2,275										
30	CH - Siding & Trim	10,000										
31	CH - Windows	11,340										
32	CH - French Doors	12,000										
33	CH - Small Doors	2,550										
34	CH - Deck, Stair & Ramp Railings	16,500	1,451	5,846		7,296	5,846		13,142	3,358		16,500
35	CH - Wood Decking	17,765	1,562	6,294		7,856	6,294		14,149	3,616		17,765
36	CH - Stair & Ramp Structure	10,200										
37	CH - Exterior Lights	2,000	176	709		884	709		1,593	407		2,000
38	CH - Exterior Deck Furnishings	2,400	2,400			2,400			2,400	129	(2,400)	129
39	CH - HVAC (1/3)	5,500	5,984	1,949		7,932	1,949	(5,500)	4,381	1,119		5,500

CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE 4 cont'd												
Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2013 Reserve Funding	2013 Projected Replacements	2013 End of Year Balance	2014 Reserve Funding	2014 Projected Replacements	2014 End of Year Balance	2015 Reserve Funding	2015 Projected Replacements	2015 End of Year Balance
40	CH - Hot Water Heater	800	800			800		(800)				
41	CH - Keyless Entry System	6,500										
CLUBHOUSE INTERIOR												
42	CH - Marble Flooring	30,380										
43	CH - Tile Flooring	3,000										
44	CH - Wood Flooring, Refinish	6,180								333		333
45	CH - Wood Flooring, Replace	37,080										
46	CH - Exercise Room Flooring	3,400	3,400			3,400			3,400			3,400
47	CH - Interior Lighting	1,500								81		81
48	CH - Furnishings, Refurbish	15,000										
49	CH - Furnishings, Replace	30,000										
50	CH - Kitchen Appliances	2,000	2,000			2,000			2,000			2,000
51	CH - Kitchen Counters	8,160	8,160			8,160			8,160			8,160
52	CH - Kitchen Wares	1,500	1,500		(1,500)					81		81
53	CH - Upper Lady's Rm Refurb	3,700										
54	CH - Upper Men's Rm Refurb	3,600										
55	CH - Lower Lady's Rm Refurb	1,500										
56	CH - Lower Men's Rm Refurb	1,200										
RECREATIONAL COMPONENTS												
57	Multi Function Exercise Equ.	5,500										
58	Life Cycle	2,800	2,800			2,800			2,800			2,800
59	Treadmill	5,200	5,200			5,200			5,200			5,200
60	Weight Equipment	1,000										
61	Main Pool Structure	1,111,500										
62	Main Pool White Coat	89,775								4,835		4,835
63	Main Pool Coping	13,000								700		700
64	Main Pool Waterline Tile	2,400								129		129
65	Wading Pool Structure	17,875										
66	Wading Pool White Coat	1,444								78		78
67	Wading Pool Coping & Tile	3,750								202		202
68	Pool Lounges	18,000										
69	Pool Tables	1,440	1,440			1,440			1,440		(1,440)	
70	Pool Umbrellas	2,600	2,600			2,600			2,600		(2,600)	
71	Pool Chairs	3,520	3,520			3,520			3,520		(3,520)	
72	Pool Lounge Chair Cushion Allowance	5,000	440	1,771		2,211	1,771		3,982	1,018		5,000
73	Guard Stands	4,600								248		248
74	Pole Lights, Pool Area	8,400								452		452
REC. COMPONENTS, (Cont.)												
75	Pool Pump, Main Pool, 7.5 HP	1,300										
76	Pool Pump, Wade Pool, 2 HP	1,000	1,088	354	(1,000)	442	354		796	204		1,000
77	Pool Filters, Large	7,200	633	2,551		3,184	2,551		5,735	1,465		7,200
78	Pool Filters, Small	1,200	105	425		531	425		956	244		1,200
79	Pool Exhaust Fans	3,000	3,000			3,000		(3,000)				
80	Pool chlorinator control	2,400	2,400			2,400			2,400		(2,400)	
81	Pool Deck Concrete (1/3)	55,000	4,835	19,485		24,321	19,485		43,806	11,194		55,000
82	Pool Deck Coating	22,500	1,978	7,971		9,949	7,971		17,921	4,579		22,500
83	Pool Railing, 4'	12,240								659		659
84	Tennis Court, Resurface	36,000										
85	Tennis Court, Color Coat	10,000								10,000		10,000
86	Tennis Court, Net & Posts	5,200										
87	Tennis Court, 10' Fence	8,640										
88	Tennis Court, 4' Fence	2,700										
89	Tennis Court Light Poles	13,500										
90	Tennis Court Lights	8,400	8,400			8,400			8,400			8,400
91	Tennis Court Net	1,400	1,523	496	(1,400)	619	496		1,115	285		1,400
92	Tennis Court Screen	4,320								4,320		4,320
93	Exterior Benches	3,000										



## COMPONENT METHOD ACCOUNTING SUMMARY

This Kingsbridge HOA - Component Method Accounting Summary is an attachment to the Kingsbridge HOA - Replacement Reserve Study dated July 18, 2012 and is for use by accounting and reserve professionals experienced in Association funding and accounting principals. This Summary consists of four reports, the 2013, 2014, and 2015 Cash Flow Method Category Funding Reports (3) and a Three-Year Replacement Funding Report.

- COMPONENT METHOD CATEGORY FUNDING REPORT, 2013, 2014, and 2015. Each of the 93 Projected Replacements listed in the Kingsbridge HOA Replacement Reserve Inventory has been assigned to one of 6 categories. The following information is summarized by category in each report:
  - Normal Economic Life and Remaining Economic Life of the Projected Replacements.
  - Cost of all Scheduled Replacements in each category.
  - Replacement Reserves on Deposit allocated to the category at the beginning and end of the report period.
  - Cost of Projected Replacements in the report period.
  - Recommended Replacement Reserve Funding allocated to the category during the report period as calculated by the Component Method.
- THREE-YEAR REPLACEMENT FUNDING REPORT. This report details the allocation of the \$245,000 Beginning Balance (at the start of the Study Year) and the \$784,660 of additional Replacement Reserve funding in 2013 through 2015 (as calculated in the Replacement Reserve Analysis) to each of the 93 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made using the Component Method as outlined in the Replacement Reserve Analysis. The calculated data includes:
  - Identification and estimated cost of each Projected Replacement schedule in years 2013 through 2015.
  - Allocation of the \$245,000 Beginning Balance to the Projected Replacements by the Component Method.
  - Allocation of the \$784,660 of additional Replacement Reserve Funding recommended in the Replacement Reserve Analysis in years 2013 through 2015, by the Component Method.

## 2013 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 93 Projected Replacements included in the Kingsbridge HOA Replacement Reserve Inventory has been assigned to one of the 6 categories listed in TABLE CM-1 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- A Beginning Balance of \$245,000 as of the first day of the Study Year, January 1, 2013.
- Total reserve funding (including the Beginning Balance) of \$512,820 in the Study Year.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2013 being accomplished in 2013 at a cost of \$6,900.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

**2013 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM-1**

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2013 BEGINNING BALANCE	2013 RESERVE FUNDING	2013 PROJECTED REPLACEMENTS	2013 END OF YEAR BALANCE
SITE COMPONENTS	5 to 35 years	0 to 20 years	\$1,100,760	\$125,469	\$151,431	\$3,000	\$273,900
SITE COMPONENTS (Cont.)	3 to 40 years	2 to 25 years	\$95,100	\$3,114	\$11,756		\$14,870
CLUBHOUSE EXTERIOR - (CH)	4 to 40 years	1 to 23 years	\$122,780	\$10,676	\$12,225		\$22,901
CLUBHOUSE INTERIOR	7 to 40 years	0 to 25 years	\$148,200	\$5,435	\$11,216	\$1,500	\$15,151
RECREATIONAL COMPONENTS	5 to 45 years	2 to 30 years	\$1,297,804	\$84,217	\$55,648		\$139,864
REC. COMPONENTS, (Cont.)	5 to 35 years	0 to 23 years	\$199,000	\$16,089	\$25,545	\$2,400	\$39,234

## 2014 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 93 Projected Replacements included in the Kingsbridge HOA Replacement Reserve Inventory has been assigned to one of the 6 categories listed in TABLE CM-2 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$505,920 on January 1, 2014.
- Total reserve funding (including the Beginning Balance) of \$776,495 in 2013 through 2014.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2014 being

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If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

### 2014 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM-2

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2014 BEGINNING BALANCE	2014 RESERVE FUNDING	2014 PROJECTED REPLACEMENTS	2014 END OF YEAR BALANCE
SITE COMPONENTS	5 to 35 years	0 to 19 years	\$1,100,760	\$273,900	\$149,665	\$34,400	\$389,165
SITE COMPONENTS (Cont.)	3 to 40 years	1 to 24 years	\$95,100	\$14,870	\$11,756		\$26,626
CLUBHOUSE EXTERIOR - (CH)	4 to 40 years	0 to 22 years	\$122,780	\$22,901	\$12,225	\$6,300	\$28,826
CLUBHOUSE INTERIOR	7 to 40 years	2 to 24 years	\$148,200	\$15,151	\$10,248		\$25,399
RECREATIONAL COMPONENTS	5 to 45 years	1 to 29 years	\$1,297,804	\$139,864	\$55,648		\$195,512
REC. COMPONENTS, (Cont.)	5 to 35 years	0 to 22 years	\$199,000	\$39,234	\$24,133	\$3,000	\$60,367

## 2015 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 93 Projected Replacements included in the Kingsbridge HOA Replacement Reserve Inventory has been assigned to one of the 6 categories listed in TABLE CM-3 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$725,895 on January 1, 2015.
- Total Replacement Reserve funding (including the Beginning Balance) of \$1,029,660 in 2013 to 2015.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2015 being accomplished in 2015 at a cost of \$91,160.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

### 2015 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM-3

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2015 BEGINNING BALANCE	2015 RESERVE FUNDING	2015 PROJECTED REPLACEMENTS	2015 END OF YEAR BALANCE
SITE COMPONENTS	5 to 35 years	0 to 18 years	\$1,100,760	\$389,165	\$141,528	\$68,800	\$461,894
SITE COMPONENTS (Cont.)	3 to 40 years	0 to 23 years	\$95,100	\$26,626	\$11,756	\$10,000	\$28,382
CLUBHOUSE EXTERIOR - (CH)	4 to 40 years	0 to 21 years	\$122,780	\$28,826	\$10,878	\$2,400	\$37,304
CLUBHOUSE INTERIOR	7 to 40 years	1 to 23 years	\$148,200	\$25,399	\$10,248		\$35,646
RECREATIONAL COMPONENTS	5 to 45 years	0 to 28 years	\$1,297,804	\$195,512	\$55,648	\$7,560	\$243,600
REC. COMPONENTS, (Cont.)	5 to 35 years	0 to 21 years	\$199,000	\$60,367	\$23,108	\$2,400	\$81,075

## COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CM-4 below details the allocation of the \$245,000 Beginning Balance, as reported by the Association and the \$784,660 of Replacement Reserve Funding calculated by the Cash Flow Method in 2013 to 2015, to the 93 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made by Chronological Allocation, a method developed by Miller Dodson Associates, Inc., and outlined on Page CF-1. The accuracy of the allocations is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$245,000 on January 1, 2013.
- Replacement Reserves on Deposit totaling \$505,920 on January 1, 2014.
- Replacement Reserves on Deposit totaling \$725,895 on January 1, 2015.
- Total Replacement Reserve funding (including the Beginning Balance) of \$1,029,660 in 2013 to 2015.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2013 to 2015 being accomplished as scheduled in the Replacement Reserve Inventory at a cost of \$141,760.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates, Inc., to arrange for an update of the Replacement Reserve Study.

### COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CM-4

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2013 Reserve Funding	2013 Projected Replacements	2013 End of Year Balance	2014 Reserve Funding	2014 Projected Replacements	2014 End of Year Balance	2015 Reserve Funding	2015 Projected Replacements	2015 End of Year Balance
SITE COMPONENTS												
1	Asphalt Pvmnt., Seal Coat - Phase 1	34,400	4,366	15,017		19,383	15,017	(34,400)		6,880		6,880
2	Asphalt Pvmnt., Mill & Overlay - P1	292,400	43,299	41,517		84,816	41,517		126,333	41,517		167,849
3	Asphalt Pvmnt., Seal Coat - Phase 2	34,400	2,911	10,496		13,407	10,496		23,904	10,496	(34,400)	
4	Asphalt Pvmnt., Mill & Overlay - P2	292,400	37,113	31,911		69,024	31,911		100,935	31,911		132,846
5	Asphalt Pvmnt., Seal Coat - Phase 3	34,400	2,911	10,496		13,407	10,496		23,904	10,496	(34,400)	
6	Asphalt Pvmnt., Mill & Overlay - P3	292,400	30,928	26,147		57,075	26,147		83,222	26,147		109,369
7	Concrete Sidewalk, (3%)	11,900	420	2,296		2,716	2,296		5,012	2,296		7,308
8	Concrete Curb (1%)	12,000	423	2,315		2,738	2,315		5,054	2,315		7,369
9	Concrete Cap, (10%)	3,750		341		341	341		682	341		1,023
10	Masonry Repointing (10%)	12,350		588		588	588		1,176	588		1,764
11	Building Caulking (20%)	3,000	635	2,365	(3,000)		600		600	600		1,200
12	PTL Retaining Wall (20%)	2,240		373		373	373		747	373		1,120
13	Shadow Box Fencing (20%)	34,500		5,750		5,750	5,750		11,500	5,750		17,250
14	Iron/Steel Fencing	29,120	2,464	1,269		3,733	1,269		5,003	1,269		6,272
15	Stormwater Management (10%)	11,500		548		548	548		1,095	548		1,643
SITE COMPONENTS (Cont.)												
16	Landscape Lighting (Allowance)	5,000	212	1,197		1,409	1,197		2,606	1,197		3,803
17	Irrigation System (Allowance)	10,000		3,333		3,333	3,333		6,667	3,333	(10,000)	
18	Sign Posts (5%)	12,600		2,100		2,100	2,100		4,200	2,100		6,300
19	Bridge Railing	12,880	954	459		1,412	459		1,871	459		2,330
20	Concrete Bridge Repair (Allowance)	10,000		476		476	476		952	476		1,429
21	Guardhouse Roof, Metal	4,320	343	159		502	159		661	159		820
22	Guardhouse Windows & Door	4,500	444	253		698	253		951	253		1,205
23	Guardhouse Cupola/Trim (Allowance)	5,000	635	728		1,362	728		2,090	728		2,817
24	Entry Gates	8,400	178	457		634	457		1,091	457		1,548
25	Gate Actuators	9,200	259	688		947	688		1,635	688		2,323
26	Key Pad	3,200	90	239		329	239		569	239		808
27	Foundation/Tree Plantings (Allowance)	10,000		1,667		1,667	1,667		3,333	1,667		5,000
CLUBHOUSE EXTERIOR - (CH)												
28	CH - Roof, Shingles	22,950	194	948		1,142	948		2,091	948		3,039
29	CH - Gutters & Downspouts	2,275	229	97		326	97		423	97		521
30	CH - Siding & Trim	10,000	1,005	428		1,433	428		1,862	428		2,290
31	CH - Windows	11,340	960	494		1,454	494		1,948	494		2,442
32	CH - French Doors	12,000	1,015	523		1,538	523		2,062	523		2,585
33	CH - Small Doors	2,550	216	111		327	111		438	111		549
34	CH - Deck, Stair & Ramp Railings	16,500	2,792	2,285		5,077	2,285		7,362	2,285		9,646
35	CH - Wood Decking	17,765	2,255	2,585		4,840	2,585		7,425	2,585		10,010
36	CH - Stair & Ramp Structure	10,200	647	455		1,102	455		1,557	455		2,012
37	CH - Exterior Lights	2,000	254	291		545	291		836	291		1,127
38	CH - Exterior Deck Furnishings	2,400	203	732		935	732		1,668	732	(2,400)	
39	CH - HVAC (1/3)	5,500	582	2,459		3,041	2,459	(5,500)		1,375		1,375

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CM-4 cont'd												
Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2013 Reserve Funding	2013 Projected Replacements	2013 End of Year Balance	2014 Reserve Funding	2014 Projected Replacements	2014 End of Year Balance	2015 Reserve Funding	2015 Projected Replacements	2015 End of Year Balance
40	CH - Hot Water Heater	800	141	329		471	329	(800)		67		67
41	CH - Keyless Entry System	6,500	183	486		669	486		1,155	486		1,641
CLUBHOUSE INTERIOR												
42	CH - Marble Flooring	30,380	2,249	1,082		3,331	1,082		4,413	1,082		5,495
43	CH - Tile Flooring	3,000	272	227		499	227		727	227		954
44	CH - Wood Flooring, Refinish	6,180		773		773	773		1,545	773		2,318
45	CH - Wood Flooring, Replace	37,080		1,685		1,685	1,685		3,371	1,685		5,056
46	CH - Exercise Room Flooring	3,400	308	773		1,081	773		1,854	773		2,627
47	CH - Interior Lighting	1,500		188		188	188		375	188		563
48	CH - Furnishings, Refurbish	15,000		1,364		1,364	1,364		2,727	1,364		4,091
49	CH - Furnishings, Replace	30,000		1,429		1,429	1,429		2,857	1,429		4,286
50	CH - Kitchen Appliances	2,000	272	346		618	346		963	346		1,309
51	CH - Kitchen Counters	8,160	1,110	1,410		2,520	1,410		3,930	1,410		5,340
52	CH - Kitchen Wares	1,500	317	1,183	(1,500)		214		214	214		429
53	CH - Upper Lady's Rm Refurb	3,700	335	280		616	280		896	280		1,177
54	CH - Upper Men's Rm Refurb	3,600	326	273		599	273		872	273		1,145
55	CH - Lower Lady's Rm Refurb	1,500	136	114		250	114		363	114		477
56	CH - Lower Men's Rm Refurb	1,200	109	91		200	91		291	91		382
RECREATIONAL COMPONENTS												
57	Multi Function Exercise Equ.	5,500	249	477		727	477		1,204	477		1,681
58	Life Cycle	2,800	254	637		890	637		1,527	637		2,163
59	Treadmill	5,200	471	1,182		1,654	1,182		2,836	1,182		4,018
60	Weight Equipment	1,000	45	87		132	87		219	87		306
61	Main Pool Structure	1,111,500	73,152	33,495		106,647	33,495		140,142	33,495		173,637
62	Main Pool White Coat	89,775	3,798	10,747		14,545	10,747		25,292	10,747		36,040
63	Main Pool Coping	13,000	550	1,556		2,106	1,556		3,663	1,556		5,219
64	Main Pool Waterline Tile	2,400	102	287		389	287		676	287		963
65	Wading Pool Structure	17,875	1,176	539		1,715	539		2,254	539		2,792
66	Wading Pool White Coat	1,444	61	173		234	173		407	173		580
67	Wading Pool Coping & Tile	3,750	159	449		608	449		1,056	449		1,505
68	Pool Lounges	18,000	1,269	1,673		2,942	1,673		4,615	1,673		6,288
69	Pool Tables	1,440	244	399		642	399		1,041	399	(1,440)	
70	Pool Umbrellas	2,600	440	720		1,160	720		1,880	720	(2,600)	
71	Pool Chairs	3,520	596	975		1,570	975		2,545	975	(3,520)	
72	Pool Lounge Chair Cushion Allowance	5,000		833		833	833		1,667	833		2,500
73	Guard Stands	4,600	584	502		1,086	502		1,588	502		2,090
74	Pole Lights, Pool Area	8,400	1,066	917		1,983	917		2,900	917		3,816
REC. COMPONENTS, (Cont.)												
75	Pool Pump, Main Pool, 7.5 HP	1,300		118		118	118		236	118		355
76	Pool Pump, Wade Pool, 2 HP	1,000	212	788	(1,000)		200		200	200		400
77	Pool Filters, Large	7,200	1,066	1,022		2,088	1,022		3,111	1,022		4,133
78	Pool Filters, Small	1,200	178	170		348	170		518	170		689
79	Pool Exhaust Fans	3,000	550	1,225		1,775	1,225	(3,000)		200		200
80	Pool chlorinator control	2,400	355	682		1,037	682		1,718	682	(2,400)	
81	Pool Deck Concrete (1/3)	55,000	4,654	8,391		13,045	8,391		21,436	8,391		29,827
82	Pool Deck Coating	22,500	1,904	3,433		5,337	3,433		8,769	3,433		12,202
83	Pool Railing, 4'	12,240	1,554	1,336		2,889	1,336		4,225	1,336		5,561
84	Tennis Court, Resurface	36,000	1,142	2,050		3,193	2,050		5,243	2,050		7,294
85	Tennis Court, Color Coat	10,000	635	1,338		1,973	1,338		3,310	1,338		4,648
86	Tennis Court, Net & Posts	5,200	165	296		461	296		757	296		1,054
87	Tennis Court, 10' Fence	8,640	574	336		910	336		1,247	336		1,583
88	Tennis Court, 4' Fence	2,700	180	105		285	105		390	105		495
89	Tennis Court Light Poles	13,500	1,047	655		1,703	655		2,358	655		3,013
90	Tennis Court Lights	8,400	1,303	1,774		3,077	1,774		4,852	1,774		6,626
91	Tennis Court Net	1,400	296	1,104	(1,400)		280		280	280		560
92	Tennis Court Screen	4,320	274	578		852	578		1,430	578		2,008
93	Exterior Benches	3,000		143		143	143		286	143		429

## 1. COMMON INTEREST DEVELOPMENTS - AN OVERVIEW

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

The growth of Community Associations has been explosive. In 1965 there were only 500 Community Associations in the United States. According to the U.S. Census, there were 130,000 Community Associations in 1990. Community Associations Institute (CAI), a national trade association, estimates there were more than 200,000 Community Associations in the year 2000, and that the number of Community Associations will continue to multiply.

The shift of responsibility for billions of dollars of community facilities and infrastructure from the local government and private sector to Community Associations has generated new and unanticipated problems. Although Community Associations have succeeded in solving many short term problems, many Associations have failed to properly plan for the tremendous expenses of replacing community facilities and infrastructure components. When inadequate replacement reserve funding results in less than timely replacements of failing components, home owners are exposed to the burden of special assessments, major increases in Association fees, and a decline in property values.

## 2. REPLACEMENT RESERVE STUDY

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

- Replacement Reserve Study Introduction. The introduction provides a description of the property, reviews the intent of the Replacement Reserve Study, and lists documents and site evaluations upon which the Replacement Reserve Study is based.
- Section A Replacement Reserve Analysis. Many components owned by the Association have a limited life and require periodic replacement. Therefore it is essential the Association have a financial plan that provides funding for the timely replacement of these components in order to protect the safety, appearance, and value of the community. In conformance with American Institute of Certified Public Accountant guidelines, Section A Replacement Reserve Analysis evaluates the current funding of Replacement Reserves as reported by the Association and recommends annual funding of Replacement Reserves by two generally accepted accounting methods; the Cash Flow Method and the Component Method. Section A Replacement Reserve Analysis includes graphic and tabular presentations of these methods and current Association funding.
- Section B Replacement Reserve Inventory. The Replacement Reserve Inventory lists the commonly-owned components within the community that require periodic replacement using funding from Replacement Reserves. The Replacement Reserve Inventory also provides information about components excluded from the Replacement Reserve Inventory whose replacement is not scheduled for funding from Replacement Reserves.  
  
Replacement Reserve Inventory includes estimates of the normal economic life and the remaining economic life for those components whose replacement is scheduled for funding from Replacement Reserves.
- Section C Projected Annual Replacements. The Calendar of Projected Annual Replacements provides a year-by-year listing of the Projected Replacements based on the data in the Replacement Reserve Inventory.
- Section D Condition Assessment. Several of the items listed in the Replacement Reserve Inventory are discussed in more detail. The Condition Assessment includes a narrative and photographs that document conditions at the property observed during our visual evaluation.
- Section E Attachments. The Appendix is provided as an attachment to the Replacement Reserve Study. Additional attachments may include supplemental photographs to document conditions at the property and additional information specific to the property cited in the Conditions Assessment (i.e. Consumer Product Safety Commission, Handbook for Public Playground Safety, information on segmental retaining walls, manufacturer recommendations for asphalt shingles or siding, etc).

### 3. METHODS OF ANALYSIS

The Replacement Reserve industry generally recognizes two different methods of accounting for Replacement Reserve Analysis. Due to the difference in accounting methodologies, these methods lead to different calculated values for the Minimum Annual Contribution to the Reserves. The results of both methods are presented in this report. The Association should obtain the advice of its accounting professional as to which method is more appropriate for the Association. The two methods are:

- **Component Method.** This method is a time tested mathematical model developed by HUD in the early 1980s. It treats each item in the replacement schedule as an individual line item budget. Generally, the Minimum Annual Contribution to Reserves is higher when calculated by the Component Method. The mathematical model for this method works as follows:

First, the total Current Objective is calculated, which is the reserve amount that would have accumulated had all of the items on the schedule been funded from initial construction at their current replacement costs. Next, the Reserves Currently on Deposit (as reported by the Association) are distributed to the components in the schedule in proportion to the Current Objective. The Minimum Annual Deposit for each component is equal to the Estimated Replacement Cost, minus the Reserves on Hand, divided by the years of life remaining.

- **Cash Flow Method.** The Cash Flow Method is sometimes referred to as the "Pooling Method." It calculates the minimum constant annual contribution to reserves (Minimum Annual Deposit) required to meet projected expenditures without allowing total reserves on hand to fall below the specified minimum level in any year. This method usually results in a calculated requirement for annual contribution somewhat less than that arrived at by the Component Method of analysis.

First, the Minimum Recommended Reserve Level to be Held on Account is determined based on the age, condition, and replacement cost of the individual components. The mathematical model then allocates the estimated replacement costs to the future years in which they are projected to occur. Based on these expenditures, it then calculates the minimum constant yearly contribution (Minimum Annual Deposit) to the reserves necessary to keep the reserve balance at the end of each year above the Minimum Recommended Reserve Level to be Held on Account. The Cash Flow Analysis assumes that the Association will have authority to use all of the reserves on hand for replacements as the need occurs. This method usually results in a Minimum Annual Deposit which is less than that arrived at by the Component Method.

- **Adjusted Cash Flow Analysis.** This program has the ability to modify the Cash Flow Method to take into account forecasted inflation and interest rates, thereby producing an Adjusted Cash Flow Analysis. Attempting to forecast future inflation and interest rates and the impact of changing technology is highly tenuous. Therefore, in most cases it is preferable to make a new schedule periodically rather than attempt to project far into the future. We will provide more information on this type of analysis upon request.

### 4. REPLACEMENT RESERVE STUDY DATA

- **Identification of Reserve Components.** The Reserve Analyst has only two methods of identifying Reserve Components; 1) information provided by the Association and 2) observations made at the site. It is important that the Reserve Analyst be provided with all available information detailing the components owned by the Association. It is our policy to request such information prior to bidding on a project and to meet with the individuals responsible for maintaining the community after acceptance of our proposal. After completion of the Study, the Study should be reviewed by the Board of Directors, individuals responsible for maintaining the community, and the Association's accounting professionals. We are dependent upon the Association for correct information, documentation, and drawings.

- **Unit Costs.** Unit costs are developed using nationally published standards and estimating guides and are adjusted by state or region. In some instances, recent data received in the course of our work is used to modify these figures.

Contractor proposals or actual cost experience may be available as part of the Association records. This is useful information which should be incorporated into your report. Please bring any such available data to our attention, preferably before the report is commenced.

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



## 5. DEFINITIONS

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

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

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

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

**Contingency.** An allowance for unexpected requirements. Roughly the same as the Minimum Recommended Reserve Level to be Held on Account used in the Cash Flow Method of analysis.

**Critical Year.** In the Cash Flow Method, a year in which the reserves on hand are projected to fall to the established minimum level. See Minimum Recommended Reserve Level to be Held on Account.

**Current Objective.** This is the reserve amount that would have accumulated had the item been funded from initial construction at its current replacement cost. It is equal to the estimated replacement cost divided by the estimated economic life, times the number of years expended (the difference between the Estimated Economic Life and the Estimated Life Left). The Total Current Objective can be thought of as the amount of reserves the Association should now have on hand based on the sum of all of the Current Objectives.

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

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

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

**Estimated Initial Replacement.** For a Cyclic Replacement Item (see above), the number of years until the replacement cycle is expected to begin.

**Estimated Replacement Cycle.** For a Cyclic Replacement Item, the number of years over which the remainder of the component's replacement occurs.

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

**Minimum Deposit in the Study Year.** Shown on the Summary Sheet A1. The calculated requirement for contribution to reserves in the study year as calculated by the Component Method (see above).

**Minimum Recommended Reserve Level to be Held on Account.** Shown on the Summary Sheet A1, this number is used in the Cash Flow Method only. This is the prescribed level below which the reserves will not be allowed to fall in any year. This amount is determined based on the age, condition, and replacement cost of the individual components. This number is normally given as a percentage of the total Estimated Replacement Cost of all reserve components.

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

**Normal Replacement Schedules.** The list of Normal Replacement Items by category or location. These items appear on pages designated.

**Number of Years of the Study.** The number of years into the future for which expenditures are projected and reserve levels calculated. This number should be large enough to include the projected replacement of every item on the schedule, at least once. This study covers a 40-year period.

One Time Deposit Required to Fully Fund Reserves. Shown on the Summary Sheet A1 in the Component Method summary, this is the difference between the Total Current Objective and the Reserves Currently on Deposit.

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

Reserves on Hand. Shown in the Cyclic Replacement and Normal Replacement Schedules, this is the amount of reserves allocated to each component item in the Cyclic or Normal Replacement schedules. This figure is based on the ratio of Reserves Currently on Deposit divided by the total Current Objective.

Replacement Reserve Study. An analysis of all of the components of the common property of the Association for which a need for replacement should be anticipated within the economic life of the property as a whole. The analysis involves estimation for each component of its estimated Replacement Cost, Estimated Economic Life, and Estimated Life Left. The objective of the study is to calculate a recommended annual contribution to the Association's Replacement Reserve Fund.

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

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

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

EA: each      FT: feet      LS: lump sum      PR: pair      SF: square feet      SY: square yard

## 6. LIST OF RECOMMENDED REPAIRS - PROCEDURES

A List of Recommended Repairs is offered as a supplemental report to the Replacement Reserve Study (at an additional fee) to assist the Association in understanding the financial implications of all items owned by the Association, not just the items included for funding by Replacement Reserves listed in the Replacement Reserve Inventory. The following information relates to the List of Recommended Repairs:

- Repair costs. Cost range estimates given in the repair list assume that all work by a given trade will be done together as a single project. If repairs are done piece-meal, the costs would be significantly higher. The costs of any repairs to be funded out of the Reserve Fund should be subtracted from the Reserves Currently on Deposit figure. The Board or Property Manager should coordinate this decision with the Reserve Analyst as part of the revision process.
- Completion of repairs. The Replacement Reserve Analysis assumes that all repairs cited in the Repair List will be completed within a twelve-month period of time. Estimated Life Left in the Replacement Reserve Study has been factored under this assumption. Any deletions or delays of the projects included in the List of Recommended Repairs may result in major inaccuracies in the Replacement Reserve Analysis.
- Safety issues. If safety issues have been cited, they should be given the highest priority and should be done immediately upon receipt of this report. The Board must recognize that from a liability standpoint, they have been made aware of the existence of these unsafe conditions, if any, once the report is delivered for their review.
- Unit costs. Nationally published standards and standard estimating manuals have been used in the development of this report. Contractor proposals or actual cost experience may be available as part of the Association records. We will adjust our figures to conform to your experience if the material or information is disclosed to us and/or made available for our use.

## Capital Replacement Reserve Study Video Answers to Frequently Asked Questions

What is a Reserve Study?  
Who are we?



<http://bcove.me/nc0o69t7>

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



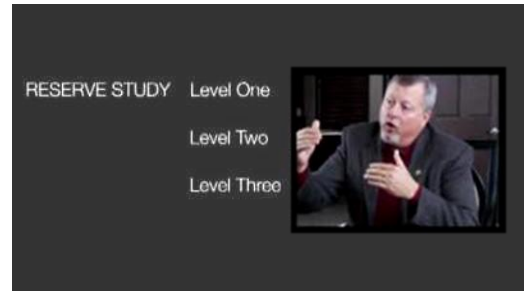
<http://bcove.me/stt373hj>

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



<http://bcove.me/81ch7kjt>

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



<http://bcove.me/ixis1yxm>

What is in a Reserve Study and what is out?  
Improvement vs Component, is there a difference?



<http://bcove.me/81ch7kjt>

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



<http://bcove.me/fazwdk3h>

## Capital Replacement Reserve Study Video Answers to Frequently Asked Questions

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



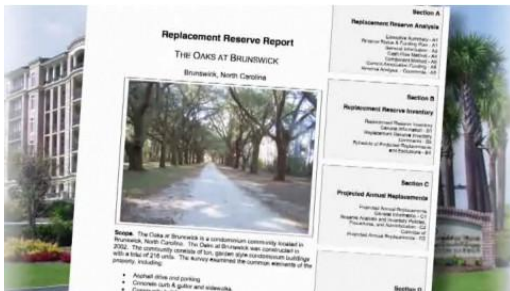
<http://bcove.me/n6nwnktv>

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



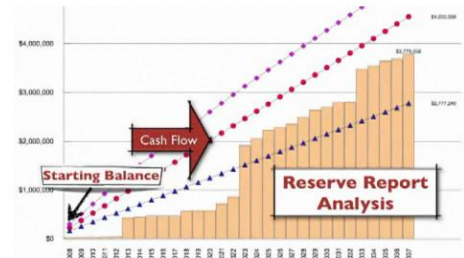
<http://bcove.me/2vfih1tz>

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



<http://bcove.me/wb2fugb1>

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



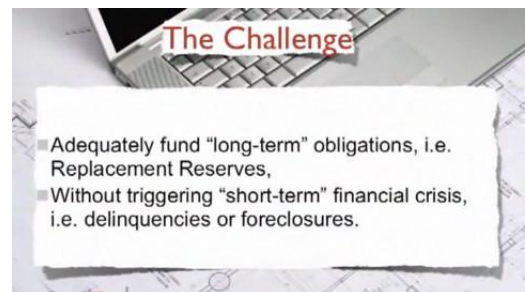
<http://bcove.me/7buer3n8>

How are interest and inflation addressed?  
What should we look at when considering inflation?



<http://bcove.me/s2tmtj9b>

A community needs more help, where do we go?  
What is a Strategic Funding Plan?



<http://bcove.me/iqul31vq>