REPLACEMENT RESERVE REPORT FY 2015

NASSAU GROVE HOA

Community Management by:

TPW MANAGEMENT LLC

Mr. Kevin Cahill

17577 Nassau Commons Blvd, Suite 103
Lewes, Delaware 19958
302.227.7878

Consultant:

929 West Street, Suite 310
Annapolis, MD 21401
Tel: 410.268.0479
Fax: 410.268.8483
www.mdareserves.com

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REPLACEMENT RESERVE REPORT

NASSAU GROVE HOA

LEWES, DELAWARE

Description. Nassau Grove is a homeowner association located on Nouveau Ave in Lewes, Delaware. Constructed from 2006 to 2011, the community consists of 244 single family residences. The survey examined the common elements of the property, including:

- Asphalt drive and parking.
- Concrete sidewalks, curb, and gutter.
- Retaining walls, fencing, and railings.
- Swimming pools and community buildings.
- Tennis and bocce ball courts.
- Storm water ponds and management system.
- Community gatehouse and entry access systems.

Level of Service. This study has been performed as a Level 2 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 in 2012 by TWP Management. The inventory was adjusted to reflect changes as provided by the Community Manager or adjustments were made based on the site visit and visual inspection performed by the Analyst. The included fund status and funding plan have been developed from analysis of the adjusted inventory.

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

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

- **Inventory of Items Owned by the Association.** Section B lists the Projected Replacements of the commonly owned items that require periodic replacement using funding from Replacement Reserves. The Replacement Reserve Inventory also provides information about excluded items, which are items whose replacements are not scheduled for funding from Replacement Reserves.

- **Condition of Items Owned by the Association.** Section B includes our estimates of the normal economic life and the remaining economic life for the projected replacements. Section C provides a year-by-year listing of the projected replacements. Section D provides additional detail for items that are unique or deserving of attention because of their condition or the manner in which they have been treated in this study.

- **Financial Plan.** The Association has a fiduciary responsibility to protect the appearance, value, and safety of the property and it is therefore essential the Association have a financial plan that provides funding for the projected replacements. In conformance with American Institute of Certified Public Accountant guidelines; Section A 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 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.

- Miller - Dodson performed a visual evaluation on August 22, 2014 to determine a remaining useful life and replacement cost for the commonly owned elements of this facility.

- This study contains additional recommendations to address inflation for the Cash Flow Method only. For this recommendation, Miller - Dodson uses the Producers Price Index (PPI), which gauges inflation in manufacturing and construction. Please see page A6 and A7 for further details.

To-Scale Drawings. Site and building plans were not used in the development of this study. We recommend the Association assemble and maintain a library of site and building plans of the entire facility. Record drawings should be scanned into an electronic format for safe storage and ease of distribution. Upon request for a nominal fee, Miller - Dodson can provide scanning services.

Current Funding. This reserve study has been prepared for Fiscal Year 2015 covering the period from January 1, 2015 to December 31, 2015. The Replacement Reserves on deposit as of January 1, 2015 are reported to be $ 436,774. The planned contribution for the fiscal year is $ 98,000.

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 Kevin Cahill, George Russo, and Bruce Antiporowich whom provided very helpful insight into the current operations of the property.

Analyst's Credentials. Mr. Gregory S. Gilbert holds a Bachelors Degree in Architecture from the Georgia Institute of Technology and a Master of Architecture from the University of Oklahoma. Mr. Gilbert is a licensed Architect. Mr. Gilbert's experience includes the design of residential homes, fire stations, and most recently educational projects. He has also done over twenty feasibility studies for the U. S. Navy, Boards of Education, and retail developers. All of these feasibility studies included performing existing condition surveys to look for maintenance issues, code violations and general conditions of the structure to determine if and how the buildings can be renovated or modified. He is currently a Reserve Analyst for Miller - Dodson Associates.

Respectfully submitted,

millerdodson ASSOCIATES | Capital Reserve Consultants

Gregory S. Gilbert, AIA
Reserve Analyst

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EXECUTIVE SUMMARY

The Nassau Grove HOA Replacement Reserve Inventory identifies 215 Projected Replacements for funding from Replacement Reserves, with an estimated one-time replacement cost of $2,739,597.

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:

$120,596 **CASH FLOW METHOD MINIMUM ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2015.**

$41.19 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 2045 which is outside of the 30-year Study Period. The Cash Flow Method - Minimum Annual Funding of Replacement Reserves remains constant at $120,596 throughout the entire 30-year Study Period.

$188,960 **COMPONENT METHOD RECOMMENDED ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2015.**

$64.54 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 $750,626.

The Association reports having $436,774 on deposit, which is 58.2% funded.

$98,000 **CURRENT ANNUAL FUNDING OF REPLACEMENT RESERVES (as reported by the Association).**

$33.47 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 5 years of the 30-year Study Period, and a maximum shortfall of $-206,637 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 $3,415,861 of Projected Replacements listed in the Nassau Grove 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 Nassau Grove 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, 2015.

STUDY PERIOD

The Replacement Reserve Analysis evaluates the funding of Replacement Reserves over a 30-year Study Period that begins on January 1, 2015.

BEGINNING BALANCE

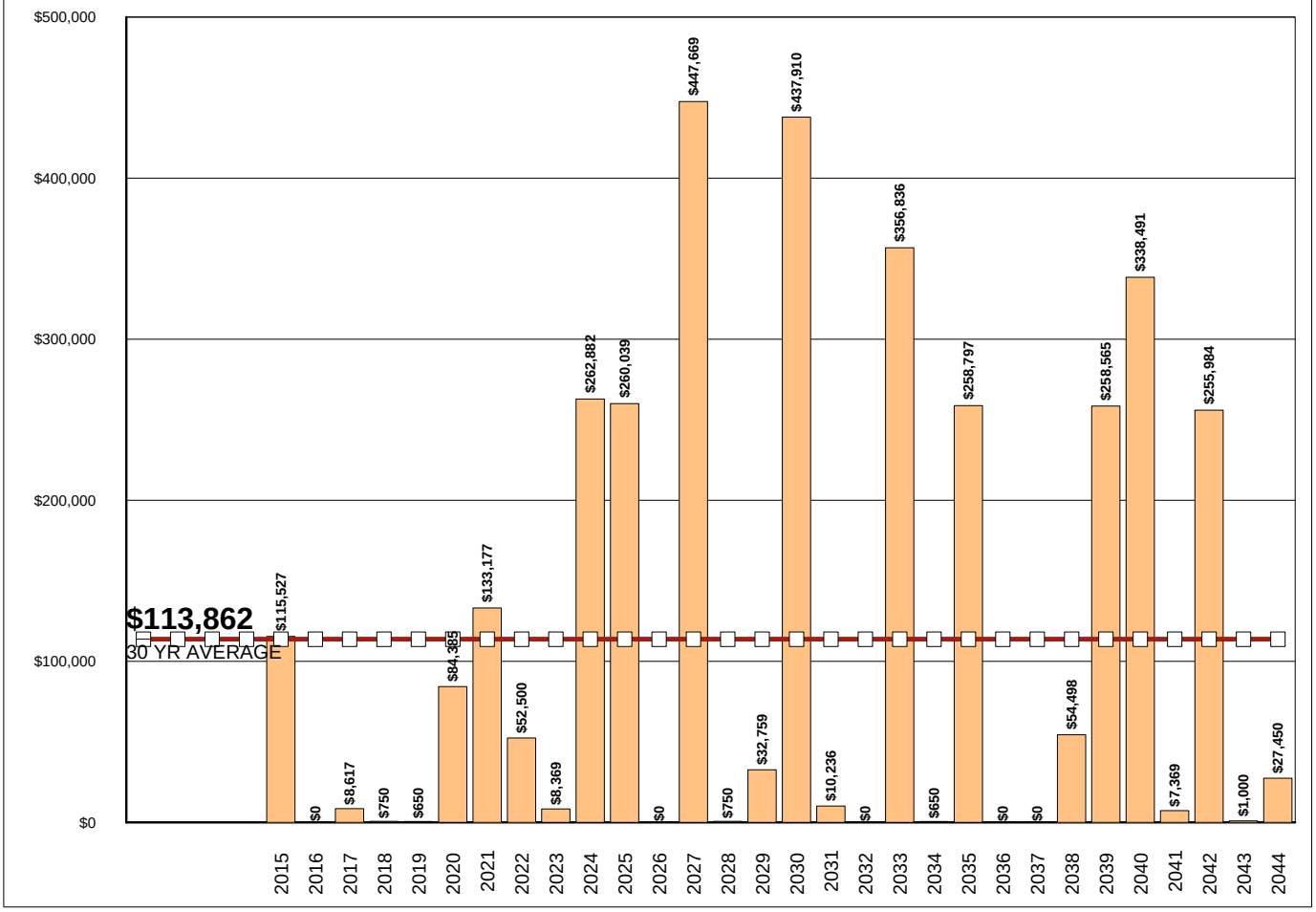
The Association reports Replacement Reserves on Deposit totaling $436,774 at the start of the Study Year.

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 $3,415,861 of Projected Replacements identified in the Replacement Reserve Inventory over the 30-year Study Period. The red line shows the average annual expenditure of $113,862.



PROJECTED REPLACEMENTS

The Nassau Grove HOA Replacement Reserve Inventory (Section B) identifies 215 Projected Replacements with a one-time Replacement Cost of $2,739,597 and replacements totaling $3,415,861 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.

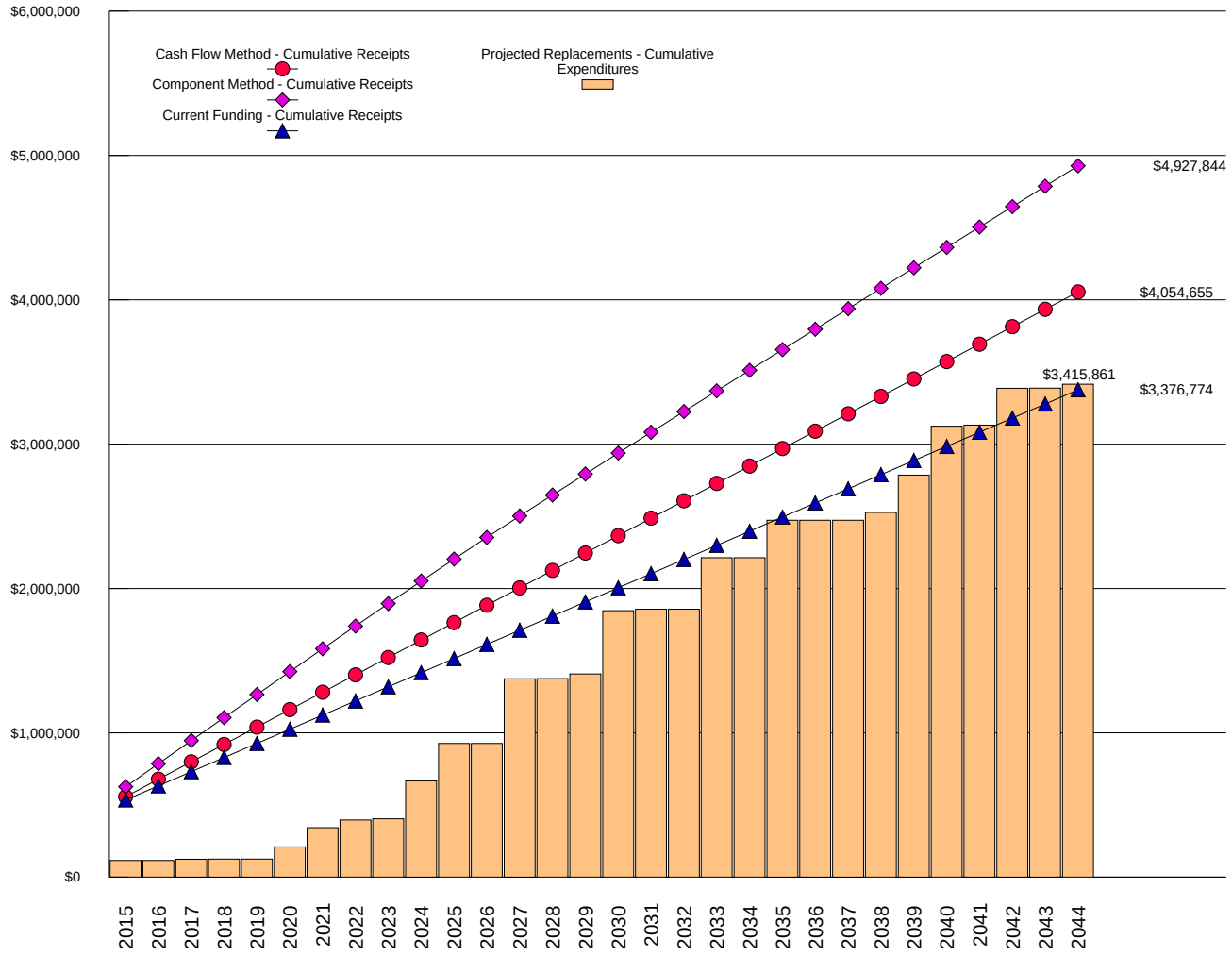
The accuracy of the Nassau Grove HOA Replacement Reserve Analysis is dependent upon expenditures from Replacement Reserves being made ONLY for the 215 Projected Replacements specifically listed in the Replacement Reserve Inventory.

To further assist in the identification of items not appropriately funded from Replacement Reserves, the Replacement Reserve Inventory identifies 47 Excluded Items. The rationale behind the exclusion of items from funding by Replacement Reserves is discussed in detail on Page B1.

The Section B - Replacement Reserve Inventory, contains Tables that list each Projected Replacement (and any Excluded Items) broken down into 19 major categories (Pages B3 to B20). 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.



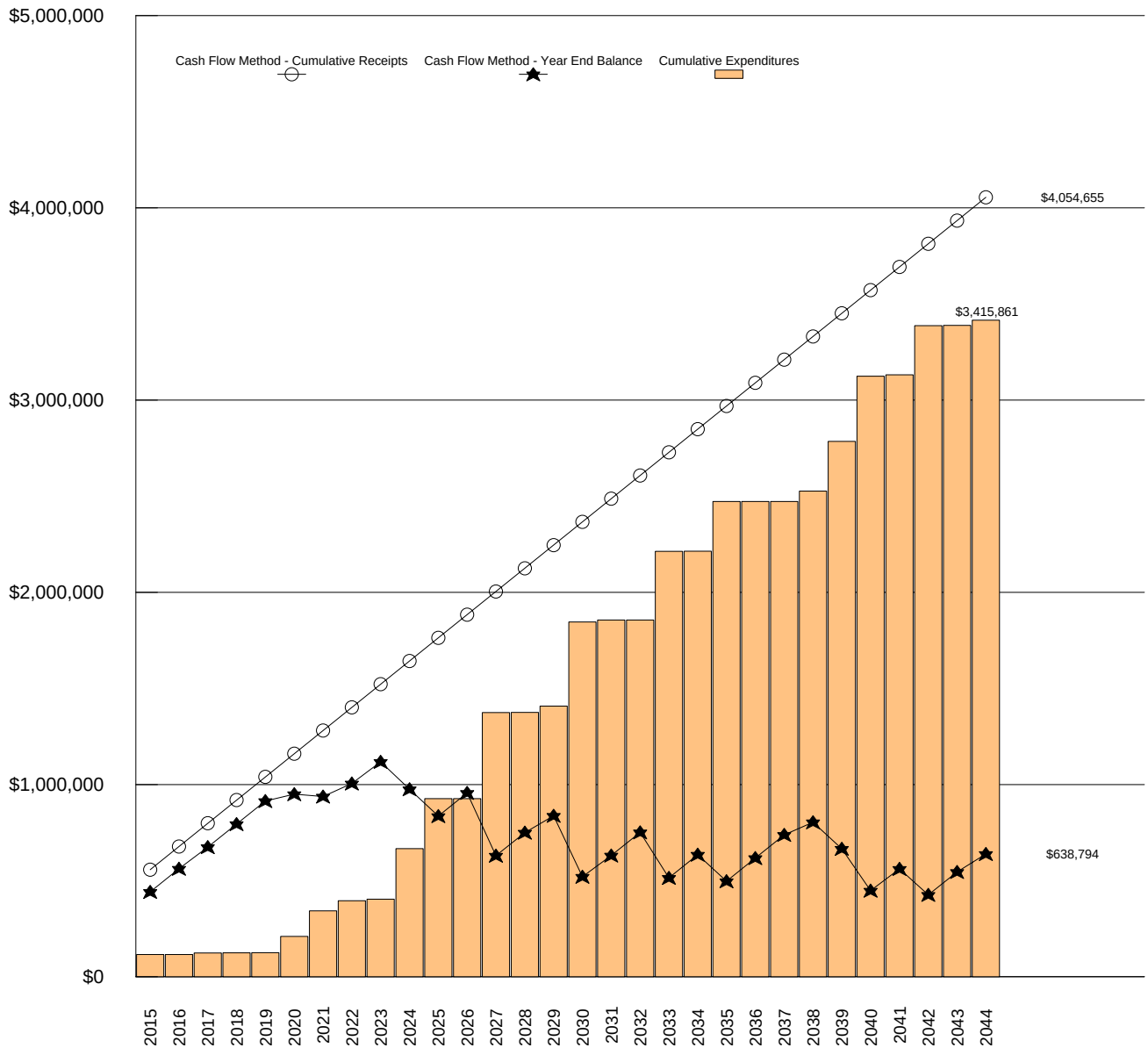
CASH FLOW METHOD

$120,596 **CASH FLOW METHOD MINIMUM ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2015.**
$41.19 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 expenses. 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 $136,980, 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 2045, which is outside of the 30-year Study Period. The Cash Flow Method - Minimum Annual Funding of Replacement Reserves of $120,596 remains the same throughout the entire 30-year Study Period.

  This funding level is adequate to fund the $3,415,861 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 $113,862 (see Graph #1). The Cash Flow Method - Minimum Annual Funding of Replacement Reserves in the Study Year is $120,596. This is 105.9 percent of the Average Annual Expenditure, indicating that the Association is building Replacement Reserves in advance of the first Peak Year in 2045.

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

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Beginning balance	$436,774									
Minimum annual funding	$120,596	$120,596	$120,596	$120,596	$120,596	$120,596	$120,596	$120,596	$120,596	$120,596
Expenditures	$115,527		$8,617	$750	$650	$84,385	$133,177	$52,500	$8,369	$262,882
Year end balance	$441,843	$562,439	$674,418	$794,264	$914,210	$950,421	$937,841	$1,005,937	$1,118,164	$975,878
Minimum recommended balance	$136,980	$136,980	$136,980	$136,980	$136,980	$136,980	$136,980	$136,980	$136,980	$136,980
Cumulative expenditures	$115,527	$115,527	$124,144	$124,894	$125,544	$209,929	$343,106	$395,606	$403,975	$666,857
Cumulative receipts	$557,370	$677,966	$798,562	$919,158	$1,039,754	$1,160,350	$1,280,946	$1,401,542	$1,522,138	$1,642,734

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Minimum annual funding	$120,596	$120,596	$120,596	$120,596	$120,596	$120,596	$120,596	$120,596	$120,596	$120,596
Expenditures	$260,039		$447,669	$750	$32,759	$437,910	$10,236		$356,836	$650
Year end balance	$836,435	$957,031	$629,957	$749,803	$837,640	$520,326	$630,686	$751,282	$515,042	$634,988
Minimum recommended balance	$136,980	$136,980	$136,980	$136,980	$136,980	$136,980	$136,980	$136,980	$136,980	$136,980
Cumulative expenditures	$926,896	$926,896	$1,374,565	$1,375,315	$1,408,074	$1,845,984	$1,856,220	$1,856,220	$2,213,056	$2,213,706
Cumulative receipts	$1,763,330	$1,883,926	$2,004,522	$2,125,118	$2,245,715	$2,366,311	$2,486,907	$2,607,503	$2,728,099	$2,848,695

Year	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
Minimum annual funding	$120,596	$120,596	$120,596	$120,596	$120,596	$120,596	$120,596	$120,596	$120,596	$120,596
Expenditures	$258,797			$54,498	$258,565	$338,491	$7,369	$255,984	$1,000	$27,450
Year end balance	$496,787	$617,383	$737,979	$804,077	$666,109	$448,214	$561,441	$426,052	$545,648	$638,794
Minimum recommended balance	$136,980	$136,980	$136,980	$136,980	$136,980	$136,980	$136,980	$136,980	$136,980	$136,980
Cumulative expenditures	$2,472,504	$2,472,504	$2,472,504	$2,527,002	$2,785,566	$3,124,057	$3,131,426	$3,387,411	$3,388,411	$3,415,861
Cumulative receipts	$2,969,291	$3,089,887	$3,210,483	$3,331,079	$3,451,675	$3,572,271	$3,692,867	$3,813,463	$3,934,059	$4,054,655

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. Below is an outline of the proprietary model developed by Miller + Dodson to forecast short-term impact of inflation on reserve funding.

- Study Year. The Unit Replacement Costs in the Study Year (listed in Section B Inventory) reflect current construction costs.
- 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 major replacement projects, as recommended by the Community Associations Institute..

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. This 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.

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 (beginning 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 recommended funding calculations above do not account for interest earned on Replacement Reserves. In 2015, based on a 1.00 percent interest rate, we estimate the Association may earn $4,389 on an average balance of $439,309, $5,047 on an average balance of $505,186 in 2016, and $6,298 on $630,458 in 2017. The Association may elect to use these funds to reduce annual funding.

CASH FLOW METHOD
THREE-YEAR FUNDING RECOMMENDATIONS WITH INFLATION ADJUSTMENT

2015 - STUDY YEAR

$120,596 MINIMUM ANNUAL FUNDING

$41.19 Per unit (average), minimum monthly funding of Replacement Reserves

The $120,596 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.

2016 - YEAR TWO

$126,686 INFLATION ADJUSTED MINIMUM ANNUAL FUNDING

$43.27 Per unit (average), minimum monthly funding of Replacement Reserves

The $126,686 inflation adjusted funding of Replacement Reserves in 2016 represents a 5.05 percent increase over the non-inflation adjusted funding recommendation of $120,596 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 $441,843 on January 1, 2016.
- All 2015 Projected Replacements scheduled in the Replacement Reserve Inventory and listed on Page C2, having been accomplished in 2015 at a cost of $115,527.
- An average annual Construction Cost Inflation Rate of 4.50 percent over the previous 12 month period.

2017 - YEAR THREE

$133,269 INFLATION ADJUSTED MINIMUM ANNUAL FUNDING

$45.52 Per unit (average), minimum monthly funding of Replacement Reserves

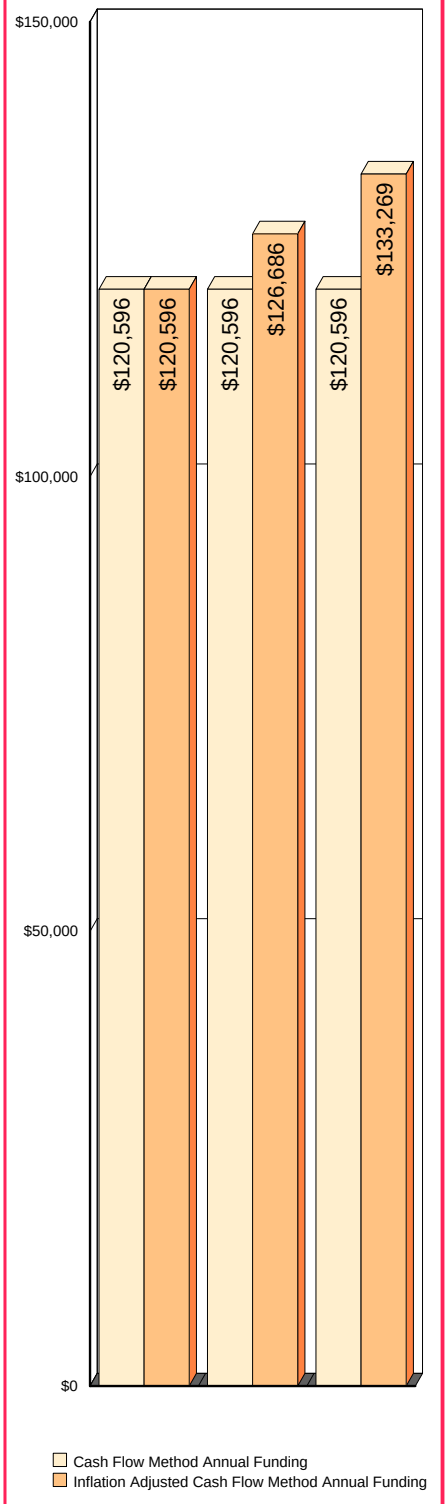
The $133,269 inflation adjusted funding of Replacement Reserves in 2017 represents a 10.51 percent increase over the non-inflation adjusted funding recommendation of $120,596 in the Study Year.

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 $562,439 on January 1, 2017.
- No Expenditures from Replacement Reserves.
  Inventory and listed on Page C2, having been accomplished in 2016 at a cost of $0.
- 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)



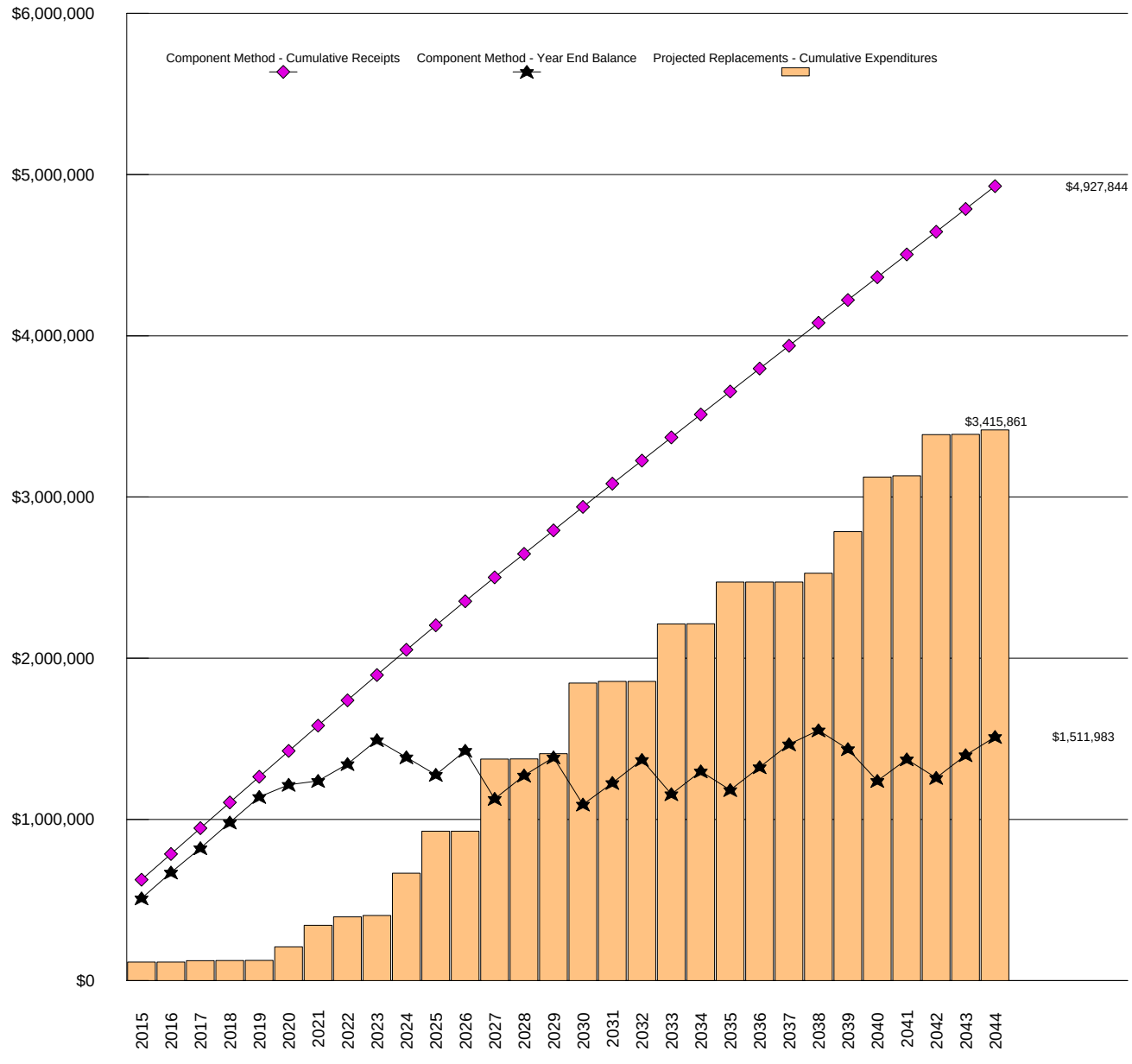
COMPONENT METHOD

$188,960 **COMPONENT METHOD RECOMMENDED ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2015.**

$64.54 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 215 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 215 Projected Replacements. The total, $750,626, 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 ($436,774) by the Current Funding Objective ($750,626). At Nassau Grove HOA the Funding Percentage is 58.2%

- Allocation of the Beginning Balance. The Beginning Balance is divided among the 215 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 58.2 percent funded, there is $466 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 $188,960, the Component Method Recommended Annual Funding of Replacement Reserves in the Study Year (2015).

  In our fence example, the $466 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 $267. Next year, the deposit remains $267, 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	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Beginning balance	$436,774									
Recommended annual funding	$188,960	$160,161	$160,161	$159,548	$159,501	$159,501	$157,523	$156,682	$156,682	$156,677
Expenditures	$115,527		$8,617	$750	$650	$84,385	$133,177	$52,500	$8,369	$262,882
Year end balance	$510,208	$670,369	$821,912	$980,710	$1,139,561	$1,214,677	$1,239,023	$1,343,205	$1,491,518	$1,385,313
Cumulative Expenditures	$115,527	$115,527	$124,144	$124,894	$125,544	$209,929	$343,106	$395,606	$403,975	$666,857
Cumulative Receipts	$625,734	$785,895	$946,056	$1,105,604	$1,265,105	$1,424,606	$1,582,129	$1,738,810	$1,895,492	$2,052,169
Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Recommended annual funding	$151,850	$148,918	$148,918	$145,671	$145,671	$145,499	$143,611	$143,569	$143,569	$142,670
Expenditures	$260,039		$447,669	$750	$32,759	$437,910	$10,236		$356,836	$650
Year end balance	$1,277,124	$1,426,042	$1,127,291	$1,272,212	$1,385,125	$1,092,714	$1,226,088	$1,369,657	$1,156,390	$1,298,409
Cumulative Expenditures	$926,896	$926,896	$1,374,565	$1,375,315	$1,408,074	$1,845,984	$1,856,220	$1,856,220	$2,213,056	$2,213,706
Cumulative Receipts	$2,204,020	$2,352,938	$2,501,856	$2,647,528	$2,793,199	$2,938,698	$3,082,309	$3,225,877	$3,369,446	$3,512,116
Year	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
Recommended annual funding	$142,670	$141,781	$141,781	$141,781	$141,781	$141,264	$141,167	$141,167	$141,167	$141,167
Expenditures	$258,797			$54,498	$258,565	$338,491	$7,369	$255,984	$1,000	$27,450
Year end balance	$1,182,282	$1,324,063	$1,465,844	$1,553,128	$1,436,344	$1,239,117	$1,372,915	$1,258,099	$1,398,266	$1,511,983
Cumulative Expenditures	$2,472,504	$2,472,504	$2,472,504	$2,527,002	$2,785,566	$3,124,057	$3,131,426	$3,387,411	$3,388,411	$3,415,861
Cumulative Receipts	$3,654,786	$3,796,567	$3,938,348	$4,080,129	$4,221,910	$4,363,174	$4,504,342	$4,645,509	$4,786,677	$4,927,844

CURRENT FUNDING

$98,000 **CURRENT ANNUAL FUNDING OF REPLACEMENT RESERVES (as reported by the Association).**

$33.47 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 $98,000 per year in each of the 30 years of the Study Period.

Our evaluation is based upon this Replacement Reserve Funding Level, a $436,774 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.

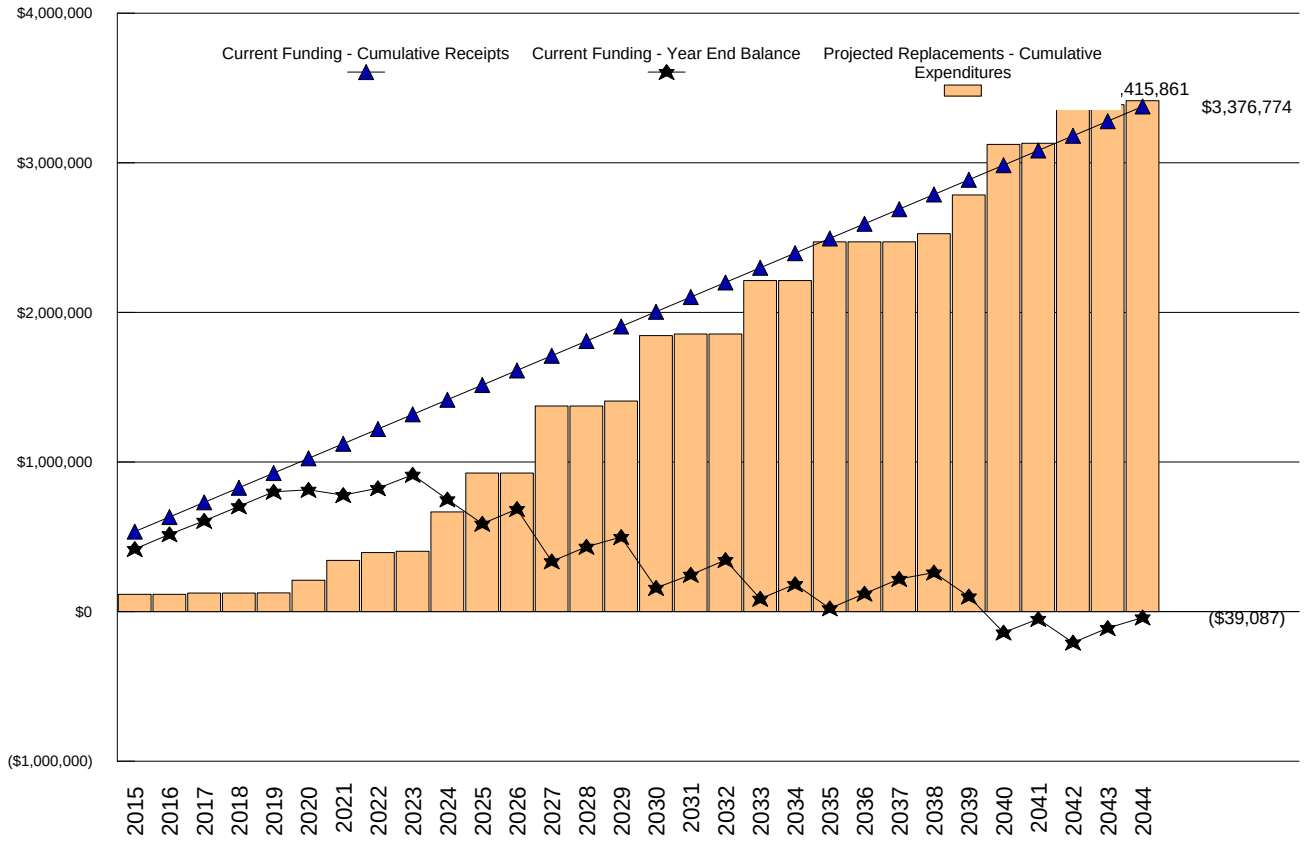
- Evaluation. Our calculations have determined that Current Annual Funding of Replacement Reserves, as reported by the Association, is inadequate to fund Projected Replacement beginning in 2040.

  The Current Annual Funding of Replacement Reserves results in insufficient funds to make Projected Replacements in 5 years of the 30-year Study Period, and a maximum shortfall of $-206,637 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 $113,862 (see Graph #1). Current Association annual funding of Replacement Reserves is $98,000, or approximately 86 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	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Beginning balance	$436,774									
Annual deposit	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000
Expenditures	$115,527		$8,617	$750	$650	$84,385	$133,177	$52,500	$8,369	$262,882
Year end balance	$419,247	$517,247	$606,630	$703,880	$801,230	$814,845	$779,669	$825,169	$914,799	$749,917
Cumulative Expenditures	$115,527	$115,527	$124,144	$124,894	$125,544	$209,929	$343,106	$395,606	$403,975	$666,857
Cumulative Receipts	$534,774	$632,774	$730,774	$828,774	$926,774	$1,024,774	$1,122,774	$1,220,774	$1,318,774	$1,416,774

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Annual deposit	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000
Expenditures	$260,039		$447,669	$750	$32,759	$437,910	$10,236		$356,836	$650
Year end balance	$587,878	$685,878	$336,209	$433,459	$498,700	$158,790	$246,554	$344,554	$85,718	$183,068
Cumulative expenditures	$926,896	$926,896	$1,374,565	$1,375,315	$1,408,074	$1,845,984	$1,856,220	$1,856,220	$2,213,056	$2,213,706
Cumulative receipts	$1,514,774	$1,612,774	$1,710,774	$1,808,774	$1,906,774	$2,004,774	$2,102,774	$2,200,774	$2,298,774	$2,396,774

Year	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
Annual deposit	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000
Expenditures	$258,797			$54,498	$258,565	$338,491	$7,369	$255,984	$1,000	$27,450
Year end balance	$22,270	$120,270	$218,270	$261,772	$101,208	($139,283)	($48,652)	($206,637)	($109,637)	($39,087)
Cumulative Expenditures	$2,472,504	$2,472,504	$2,472,504	$2,527,002	$2,785,566	$3,124,057	$3,131,426	$3,387,411	$3,388,411	$3,415,861
Cumulative Receipts	$2,494,774	$2,592,774	$2,690,774	$2,788,774	$2,886,774	$2,984,774	$3,082,774	$3,180,774	$3,278,774	$3,376,774

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 One Study - Full Service.
- Nassau Grove HOA has 244 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

Nassau Grove HOA - Replacement Reserve Inventory identifies 262 items. Two types of items are identified, Projected Replacements and Excluded Items:

- PROJECTED REPLACEMENTS. 215 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 $2,739,597. Replacements totaling $3,415,861 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. 47 of the items are Excluded Items, and expenditures for these items are NOT scheduled for funding from Replacement Reserves. The accuracy of the calculations made in the Replacement Reserve Analysis is dependent on expenditures NOT being made for Excluded Items. The Excluded Items are listed in the Replacement Reserve Inventory to identify specific items and categories of items that are not to be funded from Replacement Reserves. There are multiple categories of items that 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 that $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 levels, 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.

  The rationale for the exclusion of an item from funding by Replacement Reserves is discussed in more detail in the 'Comments' sections of the Section B - Replacement Reserve Inventory.

- CATEGORIES. The 262 items included in the Nassau Grove HOA Replacement Reserve Inventory are divided into 19 major categories. Each category is printed on a separate page, Pages B3 to B20.

- LEVEL OF SERVICE. This Replacement Reserve Inventory has been developed in compliance with the standards established for a Level One Study - Full Service, as defined by the National Reserve Study Standards, established in 1998 by Community Associations Institute, which states:

  A Level I - Full Service Reserve Study includes the computation of complete component inventory information regarding commonly owned components provided by the Association, quantities derived from field measurements and/or quantity takeoffs from to-scale engineering drawings that may be made available. The condition of all components is ascertained from a visual inspection of each component by the analyst. The remaining economic life and the value of the components are provided based on these observations and the funding status and funding plan are then derived from analysis of this data.

REPLACEMENT RESERVE INVENTORY - GENERAL INFORMATION (cont'd)

- INVENTORY DATA. Each of the 215 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.

  Each of the 47 Excluded Items includes the Item Description, Units, and Number of Units. Many of the Excluded Items are listed as a 'Lump Sum' with a quantity of 1. For the Excluded Items, this indicates that all of the items identified by the 'Item Description' are excluded from funding by Replacement Reserves.

- 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 COMPONENT
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
1	Asphalt, seal coat - Nouveu Rd - Entry	sf	31,718	$0.20	6	6	$6,344
2	Asphalt, mill, overlay - Nouveu Rd - Entry	sf	31,718	$1.70	18	18	$53,921
3	Asphalt, seal coat - Nouveu Rd	sf	35,448	$0.20	6	none	$7,090
4	Asphalt, mill, overlay - Nouveu Rd	sf	35,448	$1.70	18	9	$60,262
5	Asphalt, seal coat - Spring Valley Ln	sf	36,908	$0.20	6	none	$7,382
6	Asphalt, mill, overlay - Spring Valley Ln	sf	36,908	$1.70	18	9	$62,744
7	Asphalt, seal coat - Carneros Ave - 1	sf	33,490	$0.20	6	none	$6,698
8	Asphalt, mill, overlay - Carneros Ave-1	sf	33,490	$1.70	18	9	$56,933
9	Asphalt, seal coat - Chablis Ln	sf	44,733	$0.20	6	none	$8,947
10	Asphalt, mill, overlay - Chablis Ln	sf	44,733	$1.70	18	9	$76,046
11	Asphalt, seal coat - Anjou Ct	sf	24,107	$0.20	6	none	$4,821
12	Asphalt, mill, overlay - Anjou Ct	sf	24,107	$1.70	24	15	$40,982
13	Asphalt, seal coat - Alsace Ct	sf	32,842	$0.20	6	none	$6,568
14	Asphalt, mill, overlay - Alsace Ct	sf	32,842	$1.70	24	15	$55,831
15	Asphalt, seal coat - Corvino Ct	sf	26,608	$0.20	6	none	$5,322
16	Asphalt, mill, overlay - Corvino Ct	sf	26,608	$1.70	24	15	$45,234
						SITE COMPONENT - Replacement Costs - Subtotal	$505,123

SITE COMPONENT
COMMENTS

- We have assumed that the Association will replace the asphalt pavement by the installation of a 2 inch thick overlay. The pavement will need to be milled prior to the installation of the overlay. Milling and the cost of minor repairs (5 to 10 percent of the total area) to the base materials and bearing soils beneath the pavement are included in the cost shown above.

SITE COMPONENT (cont.)
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
17	Asphalt, seal coat - Grenche Ct	sf	37,509	$0.20	6	none	$7,502
18	Asphalt, mill, overlay - Grenche Ct	sf	37,509	$1.70	24	15	$63,765
19	Asphalt, seal coat - Carneros Ave	sf	106,433	$0.20	6	none	$21,287
20	Asphalt, mill, overlay - Carneros Ave	sf	106,433	$1.70	18	12	$180,936
21	Asphalt, seal coat - Port Circle	sf	19,124	$0.20	6	none	$3,825
22	Asphalt, mill, overlay - Port Circle	sf	19,124	$1.70	24	18	$32,511
23	Asphalt, seal coat - Corkscrew Ct	sf	49,212	$0.20	6	none	$9,842
24	Asphalt, mill, overlay - Corkscrew Ct	sf	49,212	$1.70	24	18	$83,660
25	Asphalt, seal coat - Rosemount Ln	sf	17,077	$0.20	6	none	$3,415
26	Asphalt, mill, overlay - Rosemount Ln	sf	17,077	$1.70	24	18	$29,031
27	Asphalt, seal coat - Cuvee Ln	sf	40,107	$0.20	6	none	$8,021
28	Asphalt, mill, overlay - Cuvee Ln	sf	40,107	$1.70	18	12	$68,182
29	Asphalt, seal coat - Shiraz Ln	sf	13,845	$0.20	6	none	$2,769
30	Asphalt, mill, overlay - Shiraz Ln	sf	13,845	$1.70	24	18	$23,537
31	Asphalt, seal coat - Club House	sf	22,691	$0.20	6	none	$4,538
32	Asphalt, mill, overlay - Club House	sf	22,691	$1.70	18	12	$38,575
						SITE COMPONENT (cont.) - Replacement Costs - Subtotal	$581,396

SITE COMPONENT (cont.)
COMMENTS

- We have assumed that the Association will replace the asphalt pavement by the installation of a 2 inch thick overlay. The pavement will need to be milled prior to the installation of the overlay. Milling and the cost of minor repairs (5 to 10 percent of the total area) to the base materials and bearing soils beneath the pavement are included in the cost shown above.

- 10/10/14. Changed asphalt quantity of Carneros Avenue and Rosemount Lane.

SITE COMPONENT (cont.)
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
33	Concrete sidewalk (1%)	sf	1,844	$8.50	60	6	$15,672
34	Concrete sidewalk (1%)	sf	1,844	$8.50	60	12	$15,672
35	Concrete sidewalk (1%)	sf	1,844	$8.50	60	18	$15,672
36	Concrete sidewalk (1%)	sf	1,844	$8.50	60	24	$15,672
37	Concrete sidewalk (1%)	sf	1,844	$8.50	60	30	$15,672
38	Concrete sidewalk (1%)	sf	1,844	$8.50	60	36	$15,672
39	Concrete sidewalk (1%)	sf	1,844	$8.50	60	42	$15,672
40	Concrete sidewalk (1%)	sf	1,844	$8.50	60	48	$15,672
41	Concrete sidewalk (1%)	sf	1,844	$8.50	60	54	$15,672
42	Concrete sidewalk (1%)	sf	1,844	$8.50	60	60	$15,672
43	Concrete curb (1%)	sf	369	$8.50	60	6	$3,134
44	Concrete curb (1%)	sf	369	$8.50	60	12	$3,134
45	Concrete curb (1%)	sf	369	$8.50	60	18	$3,134
46	Concrete curb (1%)	sf	369	$8.50	60	24	$3,134
47	Concrete curb (1%)	sf	369	$8.50	60	30	$3,134
48	Concrete curb (1%)	sf	369	$8.50	60	36	$3,134
49	Concrete curb (1%)	sf	369	$8.50	60	42	$3,134
50	Concrete curb (1%)	sf	369	$8.50	60	48	$3,134
51	Concrete curb (1%)	sf	369	$8.50	60	54	$3,134
52	Concrete curb (1%)	sf	369	$8.50	60	60	$3,134

SITE COMPONENT (cont.) - Replacement Costs - Subtotal $188,063

SITE COMPONENT (cont.)
COMMENTS

- For concrete components and other roadway shoulder work, we have assumed that the Association will conduct concrete component replacement projects in conjunction with the asphalt pavement and other concrete or right-of-way replacement projects.

SITE COMPONENT (cont.)

PROJECTED REPLACEMENTS AND EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
53	Wood pedestrian bridge, railing, PVC	lf	386	$35.00	30	24	$13,510
54	Wood pedestrian bridge, decking, tex	sf	1,402	$17.00	30	24	$23,834
55	Wood pedestrian bridge, structure	sf	1,402	$47.00	30	24	$65,894
56	Wood pedestrian bridge, canopy	ls	1	$5,000.00	15	9	$5,000
57	Trash corral surround, 8' wood	ft	64	$35.00	20	14	$2,240
58	Irrigation controller	ea	2	$5,000.00	15	10	$10,000
59	Irrigation pump	ea	2	$4,500.00	20	14	$9,000
60	Irrigation well	ea	2	$6,000.00	30	24	$12,000
61	Stormwater pond dredging	ls	1	$100,000.00	30	30	$100,000
	Stormwater mgmt (10%)	ls	1				EXCLUDED
62	Aerator	ea	4	$12,000.00	8	7	$48,000
63	Diffuser (two outlets)	ea	1	$4,500.00	8	7	$4,500
64	Geo syn pond liner (10%)	ls	1	$7,500.00	20	14	$7,500
65	Pond well	ea	1	$6,000.00	20	14	$6,000
66	Pond pump	ea	1	$4,500.00	30	24	$4,500
67	Stone retaining wall repointing (10%)	sq	268	$12.50	10	15	$3,350
68	Waterfall pump	ea	3	$650.00	10	10	$1,950
69	Waterfall lights	ea	3	$500.00	10	10	$1,500
70	Gazebo	ea	1	$12,000.00	40	36	$12,000
						SITE COMPONENT (cont.) - Replacement Costs - Subtotal	$330,778

SITE COMPONENT (cont.)

COMMENTS

- 10/10/14. Changed quantity of bridge railinlg, decking, and structure. Changed cost of controller. Changed quantity and cost of dredging. Added waterfall lights. Changed quantity and cost of diffuser.
- 10/10/14. Pond surface area: Spring Valley Lane 106,000 sf, Carneros Avenue 113,750 sf, and Anjou Court 38,400 sf.
- 10/20/14. Revised Stormwater dredging, management and Geo-Sync Liner.

CLUBHOUSE (CH)
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
71	CH Shingle asphalt/fiberglass	sf	6,429	$4.25	25	20	$27,323
72	CH Metal roofing	sf	507	$9.90	35	30	$5,019
73	CH Gutter & downspouts	ft	560	$6.50	25	20	$3,640
74	CH Vinyl siding	sf	2,466	$4.00	25	20	$9,864
75	CH Masonry, repointing (10%)	sf	120	$19.00	10	15	$2,280
76	CH Windows - double hung	ea	28	$550.00	25	20	$15,400
77	CH Window - fixed	ea	12	$330.00	35	30	$3,960
78	CH Doors - ext - full glazed - pr	ea	4	$1,500.00	20	15	$6,000
79	CH Doors - ext - full glazed	ea	4	$950.00	20	15	$3,800
80	CH Doors - ext - HM	ea	1	$950.00	20	15	$950
81	CH Doors - int - glazed - pr	ea	1	$1,000.00	25	20	$1,000
82	CH Doors - int - flush	ea	12	$310.00	25	20	$3,720
83	CH Doors - int - glazed	ea	5	$500.00	25	20	$2,500
84	CH Doors - int - flush - pr	ea	2	$600.00	25	20	$1,200
85	CH Floor - carpet	sf	2,125	$4.50	10	5	$9,563
86	CH Floor - quarry tile	sf	855	$12.40	40	35	$10,602
87	CH Flooring, wood, refinish	sf	416	$3.00	7	2	$1,248
88	CH Flooring, wood, replace	sf	416	$18.00	21	16	$7,488

CLUBHOUSE (CH) - Replacement Costs - Subtotal $115,557

CLUBHOUSE (CH)
COMMENTS

CLUBHOUSE (CH) (cont.)
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
89	CH Cabinets, base	ea	23	$275.00	15	10	$6,325
90	CH Cabinets, wall	ea	35	$180.00	15	10	$6,300
91	CH Dishwasher	ea	2	$775.00	10	5	$1,550
92	CH Refrigerator	ea	1	$2,100.00	10	5	$2,100
93	CH Microwave	ea	2	$350.00	10	5	$700
94	CH Ice maker	ea	1	$500.00	10	5	$500
95	CH Wine chiller	ea	1	$750.00	10	5	$750
96	CH Counter top - solid surface	sf	116	$250.00	35	30	$29,000
97	CH Counter top - plastic lam	sf	40	$125.00	25	20	$5,000
98	CH Commodes	ea	7	$500.00	30	25	$3,500
99	CH Urinals	ea	1	$450.00	30	25	$450
100	CH Sink - restroom	ea	8	$350.00	30	25	$2,800
101	CH Toilet partition	ea	5	$750.00	15	10	$3,750
102	CH Lockers - wd	ea	28	$600.00	15	10	$16,800
103	CH Water cooler	ea	1	$1,500.00	15	10	$1,500
104	CH Mop sink	ea	1	$570.00	25	20	$570
105	CH Showers	ea	4	$1,500.00	25	20	$6,000

CLUBHOUSE (CH) (cont.) - Replacement Costs - Subtotal $87,595

CLUBHOUSE (CH) (cont.)
COMMENTS

CLUBHOUSE (Cont'd)
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
106	CH Light fixture - recessed	ea	130	$160.00	25	20	$20,800
107	CH Light fixture - pendant	ea	5	$475.00	25	20	$2,375
108	CH light fixture - wall mounted	ea	14	$130.00	25	20	$1,820
109	CH Light fixture - chandellere	ea	2	$3,000.00	30	25	$6,000
110	CH Fire alarm devices	ea	25	$260.00	20	15	$6,500
111	CH Exit signs	ea	10	$150.00	20	15	$1,500
112	CH Emergency lights	ea	15	$280.00	20	15	$4,200
113	CH Fire alarm system	ls	1	$12,500.00	20	15	$12,500
114	CH Sound system	ls	1	$15,000.00	20	15	$15,000
115	CH Speakers	ea	34	$75.00	10	5	$2,550
116	CH Sprinkler system	ls	1	$15,250.00	45	40	$15,250
117	CH Water heater	ea	1	$1,500.00	10	5	$1,500
118	CH HVAC system - split	ea	9	$10,000.00	25	20	$90,000
119	CH Electrical system	ls	1	$25,500.00	40	35	$25,500
120	CH Security system	ls	2	$12,000.00	15	10	$24,000
121	CH Ceiling fans	ea	10	$350.00	15	10	$3,500

CLUBHOUSE (Cont'd) - Replacement Costs - Subtotal $232,995

CLUBHOUSE (Cont'd)
COMMENTS

- 10/10/14. Added ceiling fans. Changed cost of HVAC system.

CLUBHOUSE (Cont'd.)
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
122	CH Upholstered chair, large	ea	8	$450.00	17	12	$3,600
123	CH Hard chair	ea	26	$175.00	17	12	$4,550
124	CH Tables - end	ea	4	$250.00	17	12	$1,000
125	CH Tables - round	ea	5	$800.00	17	12	$4,000
126	CH Tables - rectangle	ea	5	$150.00	17	12	$750
127	CH Chair - bar	ea	20	$225.00	17	12	$4,500
128	CH Sofa	ea	2	$125.00	17	12	$250
129	CH TV	ea	6	$600.00	17	12	$3,600
130	CH Folding/stack chair	ea	50	$45.00	17	12	$2,250
131	CH Pool table	ea	1	$2,300.00	17	12	$2,300
132	CH Card tables	ea	1	$650.00	15	10	$650
133	CH Ping pong table	ea	1	$250.00	15	10	$250
134	CH Fossball	ea	1	$450.00	15	10	$450
135	CH Theater seating	ea	12	$350.00	15	10	$4,200
136	CH Gas fireplace components	ea	1	$1,500.00	21	16	$1,500
137	CH Outside tables	ea	4	$350.00	10	5	$1,400
138	CH Outside chairs	ea	16	$250.00	10	5	$4,000
139	CH Umberila	ea	4	$225.00	10	5	$900
140	CH Outside fireplace, repoint	ls	1	$750.00	10	3	$750
				CLUBHOUSE (Cont'd.) - Replacement Costs - Subtotal			$40,900

CLUBHOUSE (Cont'd.)
COMMENTS

- 10/10/14. Changed cost of TV.

POOLHOUSE (PH), FILTERHOUSE (FH)

PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
141	PH Shingle asphalt/fiberglass	sf	842	$4.25	25	20	$3,579
142	PH Gutter & downspouts	ft	156	$6.50	25	20	$1,014
143	PH Vinyl siding	sf	696	$4.00	25	20	$2,784
144	PH Wood Column	ea	3	$800.00	30	25	$2,400
145	PH Window - fixed	ea	2	$330.00	35	30	$660
146	PH Doors - ext - HM	ea	2	$950.00	20	15	$1,900
147	PH Light fixtures	ea	12	$150.00	20	15	$1,800
148	PH Commodes	ea	5	$500.00	30	25	$2,500
149	PH Urinals	ea	2	$450.00	30	25	$900
150	PH Sink - restroom	ea	4	$350.00	30	25	$1,400
151	PH Toilet partition	ea	5	$750.00	15	10	$3,750
152	PH Water cooler	ea	1	$1,500.00	15	10	$1,500
153	FH Shingle asphalt/fiberglass	sf	842	$4.25	25	20	$3,579
154	FH Gutter & downspouts	ft	156	$6.50	25	20	$1,014
155	FH Vinyl siding	sf	696	$4.00	25	20	$2,784
156	FH Wood Column	ea	3	$800.00	30	25	$2,400
157	FH Window - fixed	ea	2	$330.00	35	30	$660
158	FH Doors - ext - HM	ea	2	$950.00	20	15	$1,900
159	FH Light fixtures	ea	12	$150.00	20	15	$1,800
160	Tikki hut - roof thatch	ls	1	$2,000.00	5	5	$2,000
161	Tikki hut - Bar work	ls	1	$2,000.00	15	10	$2,000
162	Trellis	ls	1	$5,000.00	15	10	$5,000
				POOLHOUSE (PH), FILTERHOUSE (FH) - Replacement Costs - Subtotal			$47,323

POOLHOUSE (PH), FILTERHOUSE (FH)

COMMENTS

- 10/10/14. Changed quantity of Poolhouse nd filterhouse roofs, gutters, and downspouts.

GUARDHOUSE (GH)
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
163	GH Metal roofing	sf	270	$9.90	35	20	$2,673
164	GH Vinyl siding	sf	264	$4.00	25	20	$1,056
165	GH Masonry, repointing (10%)	sf	132	$19.00	10	15	$2,508
166	GH Window - fixed	ea	2	$330.00	35	30	$660
167	GH Doors - ext - HM	ea	1	$950.00	20	15	$950
168	GH Light fixtures	ea	3	$150.00	20	15	$450
169	Entry access gate	ea	4	$10,000.00	15	10	$40,000
170	Entry access gate, controls	ls	1	$20,000.00	15	10	$20,000
171	Entry access gate, security	ls	1	$5,000.00	15	10	$5,000
172	Entrance feature, repoint	sf	150	$8.50	10	15	$1,275
173	Entrance feature, stucco	sf	100	$4.50	10	5	$450

GUARDHOUSE (GH) - Replacement Costs - Subtotal $75,022

GUARDHOUSE (GH)
COMMENTS

SWIMMING POOL
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
174	Swimming pool, structure	sf	3,779	$65.00	45	40	$245,635
175	Swimming pool, whitecoat	sf	3,779	$5.25	10	5	$19,840
176	Swimming pool, waterline tile	ft	264	$15.00	10	5	$3,960
177	Swimming pool, coping	ft	264	$50.00	20	15	$13,200
178	Swimming pool, cover	sf	3,779	$1.95	6	2	$7,369
179	Swimming pool, rails	ea	5	$750.00	15	10	$3,750
180	Wading pool, structure	sf	211	$65.00	45	40	$13,715
181	Wading pool, whitecoat	sf	211	$5.25	10	5	$1,108
182	Wading pool, waterline tile	ft	51	$15.00	10	5	$765
183	Wading, coping	ft	51	$50.00	20	15	$2,550
184	Swimming pool, rails	ea	1	$750.00	15	10	$750
185	Swimming pool, concrete deck (25%)	sf	2,044	$11.00	40	10	$22,484
186	Swimming pool, concrete deck (25%)	sf	2,044	$11.00	40	20	$22,484
187	Swimming pool, concrete deck (25%)	sf	2,044	$11.00	40	30	$22,484
188	Swimming pool, concrete deck (25%)	sf	2,044	$11.00	40	40	$22,484
189	Wading pool pump	ea	1	$1,200.00	10	5	$1,200
190	Swimming pool pump	ea	1	$4,500.00	10	5	$4,500
191	Swimming pool filter	ea	4	$2,750.00	15	10	$11,000
192	Wading pool filter	ea	1	$1,750.00	15	10	$1,750
					SWIMMING POOL - Replacement Costs - Subtotal		$421,028

SWIMMING POOL
COMMENTS

- We have assumed that the project to replace the pool deck will include the replacement of the plumbing and electrical systems installed beneath the pavement.

SWIMMING POOL
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
193	Pool furniture, lounge	ea	32	$300.00	15	10	$9,600
194	Pool furniture, table	ea	12	$180.00	15	10	$2,160
195	Pool furniture, umbrella	ea	18	$225.00	15	10	$4,050
196	Pool furniture, end table	ea	12	$110.00	15	10	$1,320
197	Pool furniture, chair	ea	48	$110.00	15	10	$5,280
198	Pool furniture, chair, swivel	ea	7	$110.00	15	10	$770
199	Perimeter fence - 3"	ft	539	$42.00	30	25	$22,638

SWIMMING POOL - Replacement Costs - Subtotal $45,818

SWIMMING POOL
COMMENTS

COURTS
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
200	Tennis court, color coat	ea	1	$7,500.00	5	none	$7,500
201	Tennis court, resurface/overlay	ea	1	$18,000.00	20	10	$18,000
202	Tennis court, post & footings	ea	1	$2,600.00	20	10	$2,600
203	Tennis court, net	ea	1	$700.00	5	5	$700
204	Tennis court, fence	ft	350	$24.00	20	15	$8,400
205	Volley ball	ls	1	$650.00	5	4	$650
206	Horse shoe pits	ls	1	$1,000.00	10	8	$1,000
207	Bocci ball	ls	1	$2,000.00	20	20	$2,000
208	Benches	ea	4	$400.00	15	10	$1,600
209	Picnic tables	ea	3	$900.00	15	10	$2,700
210	Grill, charcoal	ea	2	$200.00	10	5	$400

COURTS - Replacement Costs - Subtotal $45,550

COURTS
COMMENTS

EXERCISE EQUIPMENT
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
211	Treadmill	ea	2	$5,200.00	10	5	$10,400
212	Elliptical trainer	ea	1	$3,600.00	10	5	$3,600
213	Elliptical trainer	ea	1	$3,600.00	10	10	$3,600
214	Universal equipment	ea	1	$2,400.00	20	15	$2,400
215	Upright bike	ea	1	$2,450.00	10	5	$2,450

EXERCISE EQUIPMENT - Replacement Costs - Subtotal $22,450

EXERCISE EQUIPMENT
COMMENTS

LONG-LIFE EXCLUSIONS
EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
	Miscellaneous culverts	ls	1				EXCLUDED
	Bridge structure and foundations	ls	1				EXCLUDED
	Concrete retaining walls	ls	1				EXCLUDED
	Building foundation(s)	ls	1				EXCLUDED
	Concrete floor slabs (interior)	ls	1				EXCLUDED
	Wall, floor, & roof structure	ls	1				EXCLUDED
	Common element electrical services	ls	1				EXCLUDED
	Electrical wiring	ls	1				EXCLUDED
	Water piping at common facilities	ls	1				EXCLUDED
	Waste piping at common facilities	ls	1				EXCLUDED
	Gas services at common facilities	ls	1				EXCLUDED

LONG-LIFE EXCLUSIONS
COMMENTS

- Long Life Exclusions. Components that when properly maintained, can be assumed to have a life equal to the property as a whole, are normally excluded from the Replacement Reserve Inventory. Examples of items excluded from funding by Replacement Reserves by this standard are listed above.

- Exterior masonry is generally assumed to have an unlimited economic life but periodic repointing is required and we have included this for funding in the Replacement Reserve Inventory.

- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

UNIT IMPROVEMENTS EXCLUSIONS

EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
	Domestic water pipes serving one unit	ls	1				EXCLUDED
	Sanitary sewers serving one unit	ls	1				EXCLUDED
	Electrical wiring serving one unit	ls	1				EXCLUDED
	Cable TV service serving one unit	ls	1				EXCLUDED
	Telephone service serving one unit	ls	1				EXCLUDED
	Gas service serving one unit	ls	1				EXCLUDED
	Driveway on an individual lot	ls	1				EXCLUDED
	Unit exterior	ls	1				EXCLUDED
	Unit windows	ls	1				EXCLUDED
	Unit doors	ls	1				EXCLUDED
	Unit skylights	ls	1				EXCLUDED
	Unit deck, patio, and/or balcony	ls	1				EXCLUDED
	Unit mailbox	ls	1				EXCLUDED
	Unit interior	ls	1				EXCLUDED
	Unit HVAC system	ls	1				EXCLUDED

UNIT IMPROVEMENTS EXCLUSIONS

COMMENTS

- Unit improvement Exclusions. We understand that the elements of the project that relate to a single unit are the responsibility of that unit owner. Examples of items excluded from funding by Replacement Reserves by this standard are listed above.

- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

UTILITY EXCLUSIONS
EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
	Primary electric feeds	ls	1				EXCLUDED
	Electric transformers	ls	1				EXCLUDED
	Cable TV systems and structures	ls	1				EXCLUDED
	Telephone cables and structures	ls	1				EXCLUDED
	Site lighting	ls	1				EXCLUDED
	Gas mains and meters	ls	1				EXCLUDED
	Water mains and meters	ls	1				EXCLUDED
	Sanitary sewers	ls	1				EXCLUDED

UTILITY EXCLUSIONS
COMMENTS

- Utility Exclusions. Many improvements owned by utility companies are on property owned by the Association. We have assumed that repair, maintenance, and replacements of these components will be done at the expense of the appropriate utility company. Examples of items excluded from funding Replacement Reserves by this standard are listed above.

- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

MAINTENANCE AND REPAIR EXCLUSIONS

EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
	Cleaning of asphalt pavement	ls	1				EXCLUDED
	Crack sealing of asphalt pavement	ls	1				EXCLUDED
	Painting of curbs	ls	1				EXCLUDED
	Striping of parking spaces	ls	1				EXCLUDED
	Numbering of parking spaces	ls	1				EXCLUDED
	Landscaping and site grading	ls	1				EXCLUDED
	Exterior painting	ls	1				EXCLUDED
	Interior painting	ls	1				EXCLUDED
	Janitorial service	ls	1				EXCLUDED
	Repair services	ls	1				EXCLUDED
	Partial replacements	ls	1				EXCLUDED
	Capital improvements	ls	1				EXCLUDED

MAINTENANCE AND REPAIR EXCLUSIONS

COMMENTS

- Maintenance activities, one-time-only repairs, and capital improvements. These activities are NOT appropriately funded from Replacement Reserves. The inclusion of such component in the Replacement Reserve Inventory could jeopardize the special tax status of ALL Replacement Reserves, exposing the Association to significant tax liabilities. We recommend that the Board of Directors discuss these exclusions and Revenue Ruling 75-370 with a Certified Public Accountant.
- Examples of items excluded from funding by Replacement Reserves by this standard are listed above.
- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

PROJECTED ANNUAL REPLACEMENTS
GENERAL INFORMATION

CALENDAR OF ANNUAL REPLACEMENTS. The 215 Projected Replacements in the Nassau Grove 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 Nassau Grove 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 - 2015

#	Description	$
3	Asphalt, seal coat - Nouveu	$7,090
5	Asphalt, seal coat - Spring V	$7,382
7	Asphalt, seal coat - Carnero	$6,698
9	Asphalt, seal coat - Chablis	$8,947
11	Asphalt, seal coat - Anjou Cl	$4,821
13	Asphalt, seal coat - Alsace C	$6,568
15	Asphalt, seal coat - Corvino	$5,322
17	Asphalt, seal coat - Grenche	$7,502
19	Asphalt, seal coat - Carnero	$21,287
21	Asphalt, seal coat - Port Circ	$3,825
23	Asphalt, seal coat - Corkscre	$9,842
25	Asphalt, seal coat - Rosemo	$3,415
27	Asphalt, seal coat - Cuvee L	$8,021
29	Asphalt, seal coat - Shiraz L	$2,769
31	Asphalt, seal coat - Club Ho	$4,538
200	Tennis court, color coat	$7,500

#	Description	$

#	Description	$

Total Scheduled Replacements $115,527

PROJECTED REPLACEMENTS - 2016

#	Description	$

#	Description	$

#	Description	$

No Scheduled Replacements

PROJECTED REPLACEMENTS - 2017

#	Description	$
87	CH Flooring, wood, refinish	$1,248
178	Swimming pool, cover	$7,369

#	Description	$

#	Description	$

Total Scheduled Replacements $8,617

PROJECTED REPLACEMENTS - 2018

#	Description	$
140	CH Outside fireplace, repoin	$750

#	Description	$

#	Description	$

Total Scheduled Replacements $750

PROJECTED REPLACEMENTS - 2019

#	Description	$
205	Volley ball	$650

#	Description	$

#	Description	$

Total Scheduled Replacements $650

PROJECTED REPLACEMENTS - 2020

#	Description	$
85	CH Floor - carpet	$9,563
91	CH Dishwasher	$1,550
92	CH Refrigerator	$2,100
93	CH Microwave	$700
94	CH Ice maker	$500
95	CH Wine chiller	$750
115	CH Speakers	$2,550
117	CH Water heater	$1,500
137	CH Outside tables	$1,400
138	CH Outside chairs	$4,000
139	CH Umberila	$900
160	Tikki hut - roof thatch	$2,000
173	Entrance feature, stucco	$450
175	Swimming pool, whitecoat	$19,840
176	Swimming pool, waterline til	$3,960
181	Wading pool, whitecoat	$1,108
182	Wading pool, waterline tile	$765
189	Wading pool pump	$1,200
190	Swimming pool pump	$4,500
200	Tennis court, color coat	$7,500
203	Tennis court, net	$700
210	Grill, charcoal	$400
211	Treadmill	$10,400
212	Elliptical trainer	$3,600
215	Upright bike	$2,450

#	Description	$

#	Description	$

Total Scheduled Replacements $84,385

PROJECTED REPLACEMENTS - 2021

#	Description	$
1	Asphalt, seal coat - Nouveu	$6,344
3	Asphalt, seal coat - Nouveu	$7,090
5	Asphalt, seal coat - Spring V	$7,382
7	Asphalt, seal coat - Carnero	$6,698
9	Asphalt, seal coat - Chablis	$8,947
11	Asphalt, seal coat - Anjou Cl	$4,821
13	Asphalt, seal coat - Alsace C	$6,568
15	Asphalt, seal coat - Corvino	$5,322
17	Asphalt, seal coat - Grenche	$7,502
19	Asphalt, seal coat - Carnero	$21,287
21	Asphalt, seal coat - Port Circ	$3,825
23	Asphalt, seal coat - Corkscre	$9,842
25	Asphalt, seal coat - Rosemo	$3,415
27	Asphalt, seal coat - Cuvee L	$8,021
29	Asphalt, seal coat - Shiraz L	$2,769
31	Asphalt, seal coat - Club Ho	$4,538
33	Concrete sidewalk (1%)	$15,672
43	Concrete curb (1%)	$3,134

#	Description	$

#	Description	$

Total Scheduled Replacements $133,177

PROJECTED REPLACEMENTS - 2022

#	Description	$
62	Aerator	$48,000
63	Diffuser (two outlets)	$4,500

#	Description	$

#	Description	$

Total Scheduled Replacements $52,500

PROJECTED REPLACEMENTS - 2023

#	Description	$
178	Swimming pool, cover	$7,369
206	Horse shoe pits	$1,000

#	Description	$

#	Description	$

Total Scheduled Replacements $8,369

PROJECTED REPLACEMENTS - 2024

#	Description	$
4	Asphalt, mill, overlay - Nouv	$60,262
6	Asphalt, mill, overlay - Sprin	$62,744
8	Asphalt, mill, overlay - Carne	$56,933
10	Asphalt, mill, overlay - Chab	$76,046
56	Wood pedestrian bridge, ca	$5,000
87	CH Flooring, wood, refinish	$1,248
205	Volley ball	$650

#	Description	$

#	Description	$

Total Scheduled Replacements $262,882

PROJECTED REPLACEMENTS - 2025

#	Description	$
58	Irrigation controller	$10,000
68	Waterfall pump	$1,950
69	Waterfall lights	$1,500
89	CH Cabinets, base	$6,325
90	CH Cabinets, wall	$6,300
101	CH Toilet partition	$3,750
102	CH Lockers - wd	$16,800
103	CH Water cooler	$1,500
120	CH Security system	$24,000
121	CH Ceiling fans	$3,500
132	CH Card tables	$650
133	CH Ping pong table	$250
134	CH Fossball	$450
135	CH Theater seating	$4,200
151	PH Toilet partition	$3,750
152	PH Water cooler	$1,500
160	Tikki hut - roof thatch	$2,000
161	Tikki hut - Bar work	$2,000
162	Trellis	$5,000
169	Entry access gate	$40,000
170	Entry access gate, controls	$20,000
171	Entry access gate, security	$5,000
179	Swimming pool, rails	$3,750
184	Swimming pool, rails	$750
185	Swimming pool, concrete de	$22,484
191	Swimming pool filter	$11,000
192	Wading pool filter	$1,750
193	Pool furniture, lounge	$9,600
194	Pool furniture, table	$2,160
195	Pool furniture, umbrella	$4,050
196	Pool furniture, end table	$1,320
197	Pool furniture, chair	$5,280
198	Pool furniture, chair, swivel	$770
200	Tennis court, color coat	$7,500
201	Tennis court, resurface/over	$18,000
202	Tennis court, post & footings	$2,600
203	Tennis court, net	$700
208	Benches	$1,600
209	Picnic tables	$2,700
213	Elliptical trainer	$3,600

#	Description	$

#	Description	$

Total Scheduled Replacements $260,039

PROJECTED REPLACEMENTS - 2026

#	Description	$

#	Description	$

#	Description	$

No Scheduled Replacements

PROJECTED REPLACEMENTS - 2027

#	Description	$
1	Asphalt, seal coat - Nouveu	$6,344
3	Asphalt, seal coat - Nouveu	$7,090
5	Asphalt, seal coat - Spring V	$7,382
7	Asphalt, seal coat - Carnero	$6,698
9	Asphalt, seal coat - Chablis	$8,947
11	Asphalt, seal coat - Anjou Cl	$4,821
13	Asphalt, seal coat - Alsace C	$6,568
15	Asphalt, seal coat - Corvino	$5,322
17	Asphalt, seal coat - Grenche	$7,502
19	Asphalt, seal coat - Carnero	$21,287
20	Asphalt, mill, overlay - Carne	$180,936
21	Asphalt, seal coat - Port Circ	$3,825
23	Asphalt, seal coat - Corkscre	$9,842
25	Asphalt, seal coat - Rosemo	$3,415
27	Asphalt, seal coat - Cuvee L	$8,021
28	Asphalt, mill, overlay - Cuve	$68,182
29	Asphalt, seal coat - Shiraz L	$2,769
31	Asphalt, seal coat - Club Ho	$4,538
32	Asphalt, mill, overlay - Club	$38,575
34	Concrete sidewalk (1%)	$15,672
44	Concrete curb (1%)	$3,134
122	CH Upholstered chair, large	$3,600
123	CH Hard chair	$4,550
124	CH Tables - end	$1,000
125	CH Tables - round	$4,000
126	CH Tables - rectangle	$750
127	CH Chair - bar	$4,500
128	CH Sofa	$250
129	CH TV	$3,600
130	CH Folding/stack chair	$2,250
131	CH Pool table	$2,300

#	Description	$

#	Description	$

Total Scheduled Replacements $447,669

PROJECTED REPLACEMENTS - 2028

#	Description	$
140	CH Outside fireplace, repoin	$750

#	Description	$

#	Description	$

Total Scheduled Replacements $750

PROJECTED REPLACEMENTS - 2029

#	Description	$
57	Trash corral surround, 8' wo	$2,240
59	Irrigation pump	$9,000
64	Geo syn pond liner (10%)	$7,500
65	Pond well	$6,000
178	Swimming pool, cover	$7,369
205	Volley ball	$650

#	Description	$

#	Description	$

Total Scheduled Replacements $32,759

PROJECTED REPLACEMENTS - 2030

#	Description	$
12	Asphalt, mill, overlay - Anjou	$40,982
14	Asphalt, mill, overlay - Alsac	$55,831
16	Asphalt, mill, overlay - Corvi	$45,234
18	Asphalt, mill, overlay - Gren	$63,765
62	Aerator	$48,000
63	Diffuser (two outlets)	$4,500
67	Stone retaining wall repointi	$3,350
75	CH Masonry, repointing (10	$2,280
78	CH Doors - ext - full glazed -	$6,000
79	CH Doors - ext - full glazed	$3,800
80	CH Doors - ext - HM	$950
85	CH Floor - carpet	$9,563
91	CH Dishwasher	$1,550
92	CH Refrigerator	$2,100
93	CH Microwave	$700
94	CH Ice maker	$500
95	CH Wine chiller	$750
110	CH Fire alarm devices	$6,500
111	CH Exit signs	$1,500
112	CH Emergency lights	$4,200
113	CH Fire alarm system	$12,500
114	CH Sound system	$15,000
115	CH Speakers	$2,550
117	CH Water heater	$1,500
137	CH Outside tables	$1,400
138	CH Outside chairs	$4,000
139	CH Umberila	$900
146	PH Doors - ext - HM	$1,900
147	PH Light fixtures	$1,800
158	FH Doors - ext - HM	$1,900
159	FH Light fixtures	$1,800
160	Tikki hut - roof thatch	$2,000
165	GH Masonry, repointing (10	$2,508
167	GH Doors - ext - HM	$950
168	GH Light fixtures	$450
172	Entrance feature, repoint	$1,275
173	Entrance feature, stucco	$450
175	Swimming pool, whitecoat	$19,840
176	Swimming pool, waterline til	$3,960
177	Swimming pool, coping	$13,200
181	Wading pool, whitecoat	$1,108
182	Wading pool, waterline tile	$765
183	Wading, coping	$2,550
189	Wading pool pump	$1,200
190	Swimming pool pump	$4,500
200	Tennis court, color coat	$7,500
203	Tennis court, net	$700
204	Tennis court, fence	$8,400
210	Grill, charcoal	$400
211	Treadmill	$10,400
212	Elliptical trainer	$3,600
214	Universal equipment	$2,400
215	Upright bike	$2,450

#	Description	$

#	Description	$

Total Scheduled Replacements $437,910

PROJECTED REPLACEMENTS - 2031

#	Description	$
87	CH Flooring, wood, refinish	$1,248
88	CH Flooring, wood, replace	$7,488
136	CH Gas fireplace componen	$1,500

#	Description	$

#	Description	$

Total Scheduled Replacements $10,236

PROJECTED REPLACEMENTS - 2032

#	Description	$

#	Description	$

#	Description	$

No Scheduled Replacements

PROJECTED REPLACEMENTS - 2033

#	Description	$
1	Asphalt, seal coat - Nouveu	$6,344
2	Asphalt, mill, overlay - Nouv	$53,921
3	Asphalt, seal coat - Nouveu	$7,090
5	Asphalt, seal coat - Spring V	$7,382
7	Asphalt, seal coat - Carnero	$6,698
9	Asphalt, seal coat - Chablis	$8,947
11	Asphalt, seal coat - Anjou Cl	$4,821
13	Asphalt, seal coat - Alsace C	$6,568
15	Asphalt, seal coat - Corvino	$5,322
17	Asphalt, seal coat - Grenche	$7,502
19	Asphalt, seal coat - Carnero	$21,287
21	Asphalt, seal coat - Port Circ	$3,825
22	Asphalt, mill, overlay - Port C	$32,511
23	Asphalt, seal coat - Corkscre	$9,842
24	Asphalt, mill, overlay - Corks	$83,660
25	Asphalt, seal coat - Rosemo	$3,415
26	Asphalt, mill, overlay - Rose	$29,031
27	Asphalt, seal coat - Cuvee L	$8,021
29	Asphalt, seal coat - Shiraz L	$2,769
30	Asphalt, mill, overlay - Shira	$23,537
31	Asphalt, seal coat - Club Ho	$4,538
35	Concrete sidewalk (1%)	$15,672
45	Concrete curb (1%)	$3,134
206	Horse shoe pits	$1,000

#	Description	$

#	Description	$

Total Scheduled Replacements $356,836

PROJECTED REPLACEMENTS - 2034

#	Description	$
205	Volley ball	$650

#	Description	$

#	Description	$

Total Scheduled Replacements $650

PROJECTED REPLACEMENTS - 2035

#	Description	$
68	Waterfall pump	$1,950
69	Waterfall lights	$1,500
71	CH Shingle asphalt/fiberglas	$27,323
73	CH Gutter & downspouts	$3,640
74	CH Vinyl siding	$9,864
76	CH Windows - double hung	$15,400
81	CH Doors - int - glazed - pr	$1,000
82	CH Doors - int - flush	$3,720
83	CH Doors - int - glazed	$2,500
84	CH Doors - int - flush - pr	$1,200
97	CH Counter top - plastic lam	$5,000
104	CH Mop sink	$570
105	CH Showers	$6,000
106	CH Light fixture - recessed	$20,800
107	CH Light fixture - pendant	$2,375
108	CH light fixture - wall mounte	$1,820
118	CH HVAC system - split	$90,000
141	PH Shingle asphalt/fiberglas	$3,579
142	PH Gutter & downspouts	$1,014
143	PH Vinyl siding	$2,784
153	FH Shingle asphalt/fiberglas	$3,579
154	FH Gutter & downspouts	$1,014
155	FH Vinyl siding	$2,784
160	Tikki hut - roof thatch	$2,000
163	GH Metal roofing	$2,673
164	GH Vinyl siding	$1,056
178	Swimming pool, cover	$7,369
186	Swimming pool, concrete de	$22,484
200	Tennis court, color coat	$7,500
203	Tennis court, net	$700
207	Bocci ball	$2,000
213	Elliptical trainer	$3,600

#	Description	$

#	Description	$

Total Scheduled Replacements $258,797

PROJECTED REPLACEMENTS - 2036

#	Description	$

#	Description	$

#	Description	$

No Scheduled Replacements

PROJECTED REPLACEMENTS - 2037

#	Description	$

#	Description	$

#	Description	$

No Scheduled Replacements

PROJECTED REPLACEMENTS - 2038

#	Description	$
62	Aerator	$48,000
63	Diffuser (two outlets)	$4,500
87	CH Flooring, wood, refinish	$1,248
140	CH Outside fireplace, repoin	$750

#	Description	$

#	Description	$
	Total Scheduled Replacements	$54,498

PROJECTED REPLACEMENTS - 2039

#	Description	$
1	Asphalt, seal coat - Nouveu	$6,344
3	Asphalt, seal coat - Nouveu	$7,090
5	Asphalt, seal coat - Spring V	$7,382
7	Asphalt, seal coat - Carnero	$6,698
9	Asphalt, seal coat - Chablis	$8,947
11	Asphalt, seal coat - Anjou Cl	$4,821
13	Asphalt, seal coat - Alsace C	$6,568
15	Asphalt, seal coat - Corvino	$5,322
17	Asphalt, seal coat - Grenche	$7,502
19	Asphalt, seal coat - Carnero	$21,287
21	Asphalt, seal coat - Port Circ	$3,825
23	Asphalt, seal coat - Corkscre	$9,842
25	Asphalt, seal coat - Rosemo	$3,415
27	Asphalt, seal coat - Cuvee L	$8,021
29	Asphalt, seal coat - Shiraz L	$2,769
31	Asphalt, seal coat - Club Ho	$4,538
36	Concrete sidewalk (1%)	$15,672
46	Concrete curb (1%)	$3,134
53	Wood pedestrian bridge, rail	$13,510
54	Wood pedestrian bridge, dec	$23,834
55	Wood pedestrian bridge, stru	$65,894
56	Wood pedestrian bridge, car	$5,000
60	Irrigation well	$12,000
66	Pond pump	$4,500
205	Volley ball	$650

#	Description	$

#	Description	$

Total Scheduled Replacements $258,565

PROJECTED REPLACEMENTS - 2040

#	Description	$
58	Irrigation controller	$10,000
67	Stone retaining wall repointi	$3,350
75	CH Masonry, repointing (10	$2,280
85	CH Floor - carpet	$9,563
89	CH Cabinets, base	$6,325
90	CH Cabinets, wall	$6,300
91	CH Dishwasher	$1,550
92	CH Refrigerator	$2,100
93	CH Microwave	$700
94	CH Ice maker	$500
95	CH Wine chiller	$750
98	CH Commodes	$3,500
99	CH Urinals	$450
100	CH Sink - restroom	$2,800
101	CH Toilet partition	$3,750
102	CH Lockers - wd	$16,800
103	CH Water cooler	$1,500
109	CH Light fixture - chandeller	$6,000
115	CH Speakers	$2,550
117	CH Water heater	$1,500
120	CH Security system	$24,000
121	CH Ceiling fans	$3,500
132	CH Card tables	$650
133	CH Ping pong table	$250
134	CH Fossball	$450
135	CH Theater seating	$4,200
137	CH Outside tables	$1,400
138	CH Outside chairs	$4,000
139	CH Umberila	$900
144	PH Wood Column	$2,400
148	PH Commodes	$2,500
149	PH Urinals	$900
150	PH Sink - restroom	$1,400
151	PH Toilet partition	$3,750
152	PH Water cooler	$1,500
156	FH Wood Column	$2,400
160	Tikki hut - roof thatch	$2,000
161	Tikki hut - Bar work	$2,000
162	Trellis	$5,000
165	GH Masonry, repointing (10	$2,508
169	Entry access gate	$40,000
170	Entry access gate, controls	$20,000
171	Entry access gate, security	$5,000
172	Entrance feature, repoint	$1,275
173	Entrance feature, stucco	$450
175	Swimming pool, whitecoat	$19,840
176	Swimming pool, waterline til	$3,960
179	Swimming pool, rails	$3,750
181	Wading pool, whitecoat	$1,108
182	Wading pool, waterline tile	$765
184	Swimming pool, rails	$750
189	Wading pool pump	$1,200
190	Swimming pool pump	$4,500
191	Swimming pool filter	$11,000
192	Wading pool filter	$1,750
193	Pool furniture, lounge	$9,600
194	Pool furniture, table	$2,160
195	Pool furniture, umbrella	$4,050
196	Pool furniture, end table	$1,320
197	Pool furniture, chair	$5,280
198	Pool furniture, chair, swivel	$770
199	Perimeter fence - 3"	$22,638
200	Tennis court, color coat	$7,500
203	Tennis court, net	$700

#	Description	$
208	Benches	$1,600
209	Picnic tables	$2,700
210	Grill, charcoal	$400
211	Treadmill	$10,400
212	Elliptical trainer	$3,600
215	Upright bike	$2,450

#	Description	$
	Total Scheduled Replacements	$338,491

PROJECTED REPLACEMENTS - 2041

#	Description	$
178	Swimming pool, cover	$7,369

#	Description	$

#	Description	$
	Total Scheduled Replacements	$7,369

PROJECTED REPLACEMENTS - 2042

#	Description	$
4	Asphalt, mill, overlay - Nouv	$60,262
6	Asphalt, mill, overlay - Sprin	$62,744
8	Asphalt, mill, overlay - Carne	$56,933
10	Asphalt, mill, overlay - Chab	$76,046

#	Description	$

#	Description	$

Total Scheduled Replacements $255,984

PROJECTED REPLACEMENTS - 2043

#	Description	$
206	Horse shoe pits	$1,000

#	Description	$

#	Description	$
	Total Scheduled Replacements	$1,000

PROJECTED REPLACEMENTS - 2044

#	Description	$
122	CH Upholstered chair, large	$3,600
123	CH Hard chair	$4,550
124	CH Tables - end	$1,000
125	CH Tables - round	$4,000
126	CH Tables - rectangle	$750
127	CH Chair - bar	$4,500
128	CH Sofa	$250
129	CH TV	$3,600
130	CH Folding/stack chair	$2,250
131	CH Pool table	$2,300
205	Volley ball	$650

#	Description	$

#	Description	$

Total Scheduled Replacements $27,450

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CONDITION ASSESSMENT

General Comments. Miller - Dodson Associates conducted a Reserve Study at Nassau Grove HOA in August 2014. Nassau Grove HOA is in generally good condition for a community constructed from 2006 to 2011. 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.

General Condition Statements.

Excellent. 100% to 90% of Normal Economic Life expected, with no appreciable wear or defects.

Good. 90% to 60% of Normal Economic Life expected, minor wear or cosmetic defects found. Normal maintenance should be expected. If performed properly, normal maintenance may increase the useful life of a component. Otherwise, the component is wearing normally.

Fair. 60% to 30% of Normal Economic Life expected, moderate wear with defects found. Repair actions should be taken to extend the life of the component or to correct repairable defects and distress. Otherwise, the component is wearing normally.

Marginal. 30% to 10% of Normal Economic Life expected, with moderate to significant wear or distress found. Repair actions are expected to be cost effective for localized issues, but normal wear and use are evident. The component is reaching the end of the Normal Economic Life.

Poor. 10% to 0% of Normal Economic Life expected, with significant distress and wear. Left unattended, additional damage to underlying structures is likely to occur. Further maintenance is unlikely to be cost effective.

SITE COMPONENTS

Entry Monument and Signage. The Association maintains entry monuments. The monuments are made of rock of varying degrees of hardness including soft sedimentary stone. These soft stones are flaking in many locations. In addition, the masonry joints were found to be open in some areas and efflorescence is evident in some areas indicating water penetration into the masonry work.

Entry sign on guardhouse

Entry monument

The monuments have areas of stucco.

Stucco finishes are installed on the facility's exterior. Most stucco deterioration is the result of water infiltration. This is generally first evident near the roof and around chimneys, windows, doors, and other wall penetrations. Moisture can also gain access through materials that are in contact with ground by a process called wicking. Moisture will cause the supporting lath for the stucco to rot or corrode, resulting in the stucco pulling away from the substrate. Significant deterioration of wooden and metal structural elements can occur. Similar to Exterior Insulation Finishing Systems (EIFS) a "water-managed system" is the approach for new construction. However, many older installations assume a water barrier system. It is recommended for all stucco surfaces be inspected at least once each year.

In this study, we provide for an allowance for incremental stucco repairs every 10 years with a recoating every 30 years. Further inspection of the stucco and repair of any latent and concealed damage are not accounted for in this study. See http://mdareserves.com/resources/links/building-exterior for additional information.

We recommend repointing and replacement of defective areas of the masonry as needed. The Association may want to consider applying a coat of Siloxane or other appropriate breathable sealant to mitigate water penetration and further degradation of the masonry work. For additional information, please see the appropriate links on our web site at http://mdareserves.com/resources/links/building-exterior.

The sign is made of wood is in good condition. In order to keep the monument fresh and appealing, we recommend replacement every 10 to 15 years.

Street signs are not considered in this study and should be replaced using other funds.

Asphalt Pavement. The Association is responsible for the roadways, and parking areas within the community. In general, the Association's asphalt pavements are in good condition, with minor cracking.

Typical roadway

Clubhouse parking lot

As a rule of thumb, asphalt should be overlaid when approximately 5% of the surface area is cracked or otherwise deteriorated. The normal service life of asphalt pavement is typically 18 to 20 years.

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

- **Cleaning.** Long-term exposure to oil or gas breaks down asphalt. Because this asphalt pavement is generally not used for long-term parking, it is unlikely that frequent cleaning will be necessary. When necessary, spill areas should be cleaned or patched if deterioration has penetrated the asphalt. This is a maintenance activity, and we have assumed that it will not be funded from Reserves.

- **Crack Repair.** All cracks should be repaired with an appropriate compound to prevent water infiltration through the asphalt into the base. This repair should be done annually. Crack repair is normally considered a maintenance activity and is not funded from Reserves. Areas of extensive cracking or deterioration that cannot be made watertight should be cut out and patched.

- **Seal Coating.** The asphalt should be seal coated every five to seven years. For this maintenance, activity to be effective in extending the life of the asphalt, cleaning and crack repair should be performed first.

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

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

Lastly, the resource links provided on our website may provide insight into the general terms and concerns, including maintenance related advantages and disadvantages, which may help the Association better manage the asphalt pavements throughout the community: http://mdareserves.com/resources/links/site-components.

Concrete Work. The concrete work includes the community curbs, sidewalks, leadwalks, trails, patios, shared driveways, and other flatwork. We have modeled for curb replacement when the asphalt pavement is overlaid. The overall condition of the concrete work is good.

Concrete sidewalk and gutter

Shared concrete driveways

The standards we use for recommending replacement are as follows:

- Trip hazard, ½ inch height difference.
- Severe cracking.
- Severe spalling and scale.
- Uneven riser heights on steps.
- Steps with risers in excess of 8¼ inches.

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

The relevant links on our web site may provide useful information related to concrete terminology, maintenance, and repair. Please see http://mdareserves.com/resources/links/site-components.

Site Lighting. The Association is not responsible for the operation of the facility's streetlights. The lighting system was not on at the time of our site visit. We understand that the lighting system is in operating condition. The Association is responsible for the community's low voltage lighting.

Low voltage lighting

Retaining Walls. The Association maintains several poured concrete retaining walls with stone veneer. The retaining walls are in good.

Stone faced concrete retaining walls

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

Movement and displacement of any retaining wall is a sign of general settlement or failure. This typically is in the form of leaning and bowing, and can involve the entire wall or localized sections of the wall. Typically, these types of movements are gradual and may require the replacement of the wall. Movement of retaining walls located near other buildings or structures may negatively affect the stability of the adjacent structure. These conditions can become extremely costly if not properly identified, monitored, and addressed.

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

Poured concrete retaining walls can have an extended useful life of 60 years or more, and if stable, may only require periodic localized repair. Siloxane or other breathable sealants should be considered to provide additional protection to the wall from water penetration. This study assumes that concrete repairs will be performed incrementally as needed.

As a general source of information about retaining walls, we offer several links from our website at http://mdareserves.com/resources/links/site-components.

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

Trash Corral. The community has a trash corral at the clubhouse in the parking area. The trash corral includes a concrete pad and enclosures that are constructed from wood fencing. The overall condition of the trash corrals is fair.

Trash corral

Underground Utilities. The Association is responsible for the maintenance of the underground utility lines, including the storm water management pipes. Engineering drawings were not used in the determination of these underground components. Instead, we have provided an estimate of the approximate replacement costs based on our experience with other facilities of similar size and configuration. The inspection and evaluation of underground lines and structures is beyond the scope of work for this study.

Storm Water Ponds. The community is served by several storm water ponds.

Storm water pond

Storm water pond with overflow structure

Overflow pond

Storm water inlet

Ponds will accumulate silt and over time and lose the ability to store storm water at design levels, which could result in overflows and minor local flooding. In addition, water quality can be negatively affected by increased siltation and debris accumulation. Accordingly, ponds require periodic dredging.

Estimates of cost and the frequency of dredging ponds are a function of many variables, including the volume of the pond, the siltation rate, the nature of the material being removed, the method of removal, and the haul distance to a site that will accept the spoil material. Most of this information is unknown and must be assumed for the purpose of reserve study planning. The siltation rate and cost of periodic dredging are speculative, varying greatly depending on local conditions.

As a rule of thumb, dredging should be performed when approximately one-third of the volume of the pond has been filled with silt. In the absence of accurate information about the original depth of the pond and the local siltation rate, the Association has obtained an estimate of 30 years normal and remaining life from local service companies . We have assumed that the material being removed is free of heavy metals and hydrocarbons, and that it will be accepted as fill at a local landfill. A more accurate prediction of cost and cycles will require a hydrologic analysis and testing, which is beyond the scope of our study.

Because of the significant cost of this work, it is recommended that the Association undertake studies to refine the assumptions of this study.

Based on our understanding, we recommend the following:

- Periodically remove accumulated debris and vegetation growing in the ponds.
- Survey the ponds to establish the current profile of the bottom. After five years of operation, have the pond re-surveyed to establish new depths to determine the local siltation rate. This will establish the frequency required for periodic dredging.
- Periodically sample and test for contaminants.
- Consult with local contractors to determine the cost of removing and disposing of the spoil, once its nature is known.

Firms that specialize in this work can be typically found by internet searching “Lake and Pond, Construction and Maintenance” for your state or area of the country. Some states provide short lists of companies that specialize in this type of work.

Please note that the periodic removal of overgrown vegetation from the pond is considered a maintenance activity and has not been reserved for or included in this study.

Irrigation System. The Association operates an irrigation system that serves the entire Community. The system includes wells, main water pumps, filters, controllers, impact rotors, pop-up heads, valves, electronic controls, and a network of underground lines. We consider the replacement of individual heads, valves, and sections of the underground piping to be normal maintenance expenses and have excluded them from the Reserve Analysis.

Over time, underground portions of the system will deteriorate to the point where a complete system replacement will be required. In typical applications, this replacement interval is approximately 30 years long.

System controllers have a typical service life of ten years.

Irrigation well and controls

Foot bridge

Bridge. There is a bridge located within the community. The overall condition of this is good. For the Reserve Analysis, we have separated the bridge into three components, the deck, the rail, and the structure, to reflect their different service lives.

BUILDING EXTERIORS

Building Roofing. The clubhouse and adjacent pool house buildings are roofed with asphalt shingles , with a portion of the club house in standing seam metal roofing system that are in generally good condition.

Club house

Pool house

Asphalt shingle roofs can have a useful life of 20 to 50 years depending on the weight and quality of the shingle. Weathered, curled, and missing shingles are all indications that the shingles may be nearing the end of their useful life.

Metal roofing can be standing seam, rolled seam, or shingle with a normal economic life of 50 to 100 years. In some cases, recoating or repainting can extend the useful life of a metal roof.

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

For additional information on roofs and roof maintenance, please see the appropriate links on our web site at http://mdareserves.com/resources/links/building-exterior.

Gutters and Downspouts. The buildings have aluminum gutters and downspouts. The gutters and downspouts are in good condition.

A gutter and downspout system will remove rainwater from the area of the building roof, siding, and foundation. This will protect building's exterior surfaces from water damage. Gutters should run the full length of all drip

edges of the building roof. Even with full gutters, it is important to inspection the function of the gutters during heavy rain to identify any deficiencies. It may be necessary to periodically adjust the slope of sections, repair connections, replace hangers, and install shrouds to the gutters. Downspouts should be securely attached to the side of the structure. Any broken straps should be replaced. The area of the outlet should be inspected to promote run-off in the desired direction. Long straight runs should have an elbow at the bottom. Splash blocks should be installed to fray the water out-letting from the downspout.

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

Siding and Trim. The exteriors of the pool houses and clubhouse are clad in vinyl and stone veneer siding and trim. The siding and trim materials are in generally good.

Vinyl siding and trim can have an extended useful life if not damaged by impact, heat, or other physical reasons. However, the coatings and finishes typically have a useful life and over time begin to weather, chalk, and show their age. For these reasons, we have modeled for the replacement of the siding and trim every 25 years.

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

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

Periodic repointing and local replacement of damaged masonry units will limit the damage done by moisture penetration. For this study, we assume that 10% of the masonry will require repointing every 10 years after approximately 30 years. For additional information about masonry and repointing, please view the relevant links at http://mdareserves.com/resources/links/building-exterior.

Windows and Doors. The Association is responsible for the common windows and exterior doors of the facility. The windows and doors are in generally good condition.

For more information, please see our links at http://mdareserves.com/resources/links/building-exterior.

Building Access. The building is an access-controlled facility with electrically operated doors activated by keypads and key fobs. There two separate systems in the facility. These systems are reported to be operating normally.

Systems of this type typically have a service life of 15 to 20 years. Beyond that point, it becomes increasingly difficult to find replacement parts. Additionally, changes in technology help render the systems obsolete. For these reasons, we have assumed a service life of 15 years for this type of system.

BUILDING INTERIORS

Common Interiors. The Association maintains the total interior spaces of the community which are in generally good condition.

Great room

Corridor

Lounge

Kitchen

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

Fitness Center. The Fitness Center includes exercise equipment, and two restrooms including showers. Listed below are the major components:

Fitness center

- Flooring. The rubber and ceramic floor tile are in Statement condition. We have assumed a service life of 20 years for the rubber and 35 years for the floor tile.

- Exercise Equipment. The equipment is in generally Statement condition. Since it is unlikely that all of the equipment will require replacement at the same time, we have provided a replacement-funding plan that assumes an incremental approach.

- Lockers. The locker rooms have half height, wooden lockers. All are in good condition. We have assumed a 30-year service life for these lockers.

- Light Fixtures. Illumination is provided by ceiling-mounted and wall-mounted light fixtures. The fixtures use incandescent and compact fluorescent lamps. The fixtures are in good working condition and do provide adequate lighting. Fixtures of this type have a typical service life of 25 years.

- Shower and Restroom Fixtures. All shower and restroom fixtures are in good condition. We have assumed a service life of 20 years for the fixtures and that all fixtures will be replaced at the same time as part of a general renovation of the restroom.

Carpet. The carpet in the building is in good condition. Commercial carpet of this construction in this type of application has a typical service life of 7 to 10 years.

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

Ceramic Tile. The Association maintains ceramic tile thoughout the facility. The overall condition of the ceramic tile is Statement.
To help maintain the condition of the ceramic tile, regular cleaning is recommended. The tile can further be protected by the installation of dirt catching, walk-off mats placed at all building entrances.

Hardwood Flooring. The building has hardwood flooring. The flooring is in good condition.
The entire plank in hardwood flooring is made from wood, making it easy to sand and refinish when needed. Hardwood floors are easily damaged by scratches and dents. Water will cause the boards to swell and expand. Most hardwood floors can be sanded and refinished three or four times over their service life. Depending on the application and the level of traffic that the floor is exposed to, hardwood floors can be expected to have a service life of 30 years or more.

We have included two items in the Reserve Analysis for the hardwood floors, replacement at 30 years and refinishing every 10 years.

Emergency Light Fixtures. The building uses battery powered light fixtures for emergency lighting in the event of a power outage. The fixtures are equipped with compact fluorescent light sources. The fixtures are in good condition. Fixtures of this type have a typical service life of 20 years.

The use of emergency light fixtures is required on an irregular and infrequent basis. Frequently, fixtures fail to operate when needed due to failed components that have gone unnoticed. Therefore, we recommend that the Association have all emergency light fixtures tested on a regular basis, typically every 3 to 6 months.

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

MECHANICAL & ELECTRICAL

Split and Package HVAC Systems. The heating ventilation and air conditioning (HVAC) of the facility are reported to be operating normally. Detailed inspection and testing of these systems is beyond the scope of this study

HVAC compressor units

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

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

As is the case with most equipment, to achieve a maximum useful economic life, proper maintenance is essential. In some cases, proper and proactive maintenance can greatly extend the useful life of these components.

Building Electrical Service. The electrical systems of the building(s) are reported to be operating normally.

Other than transformers and meters and if protected from water damage or overloading, interior electrical systems within a building, including feed lines and switch gear, are considered long-life components, and unless otherwise noted, are excluded from this study.

In order to maintain this equipment properly, periodic tightening of all connections is recommended every three to five years. Insurance policies in some cases may have specific requirements regarding the tightening of electrical connections. It is also recommended that outlets, sockets, switches, and minor fixtures be replaced at a maximum of every 30 years.

Replacement of these smaller components, unless otherwise identified, is considered incidental to refurbishment or is considered a Valuation Exclusion.

Fire Safety Systems. The building is fitted with a fire safety system that includes sprinklers and alarms, and these are reported to be operating normally. Testing and inspection of fire safety systems are not included in this study.

Fire sprinkler connection

Sprinkler pipe systems have a wide variety of configurations and requirements depending on their age, condition, and jurisdictional location. Specific county and municipal codes can make a significant difference on what your facility's specific requirements may be.

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

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

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

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

Vehicle Access System. Perimeter access control is established via electronic access control and vehicle access gates. The systems are in good condition and operating normally.

Entry gates

Entry controls

- Readers. Maintain all connections and security interfaces.
- Gates. Maintain hinges and fence sections. Keep swing or slide area clear of debris and obstructions.
- Actuators. Inspect actuators periodically to ensure proper function.
- Electrical. Maintain boxes, connections, and conduits to keep out water and moisture.

RECREATIONAL FACILITIES

Swimming Pool. The community operates an outdoor pool and wading pool of concrete construction. Listed below are the major components of the pool facilities:

Main pool

Wading pool

Pool equipment

Pool furniture

- Pool Shell. The shell for the swimming pool is in good condition.
- Pool Deck. The pool has a concrete deck. The overall condition of the deck is good.
- Whitecoat. The pool whitecoat is in good condition. We have assumed a service life of eight to ten years for the pool whitecoat.
- Waterline Tile. The waterline tile is in good condition. We have assumed that the waterline tile will be replaced or restored when the pool is whitecoated.
- Coping. The pool is edged with masonry coping. The coping is in good condition.
- Pump and Filter System. The filter system is in good operating condition.
- Pool Fence. The swimming pool is enclosed by a metal fence that is in good condition.

Tennis Courts. The community maintains a single tennis court multiple tennis courts. The overall condition of these courts is good fair poor.

Listed below are the major components of the tennis court facilities:

- Asphalt Pavement (base layer). We have assumed a service life of 20 to 30 years for the asphalt base layer.
- Color Coat (surface layer). Annual cleaning is recommended to maintain the surface of the court. The base of a tennis court is subject to cracking and low spots known as “birdbaths” that can occur from weather and earth movement. A program to address cracks as they appear will help to prolong the useful life of the color coat. We have assumed a service life of five to ten years for the color coat.
- Fencing. We have assumed that the fencing will be replaced when the asphalt pavement is replaced. Posts and fencing should be inspected, repaired, and painted as needed to prolong their economic life. Periodic inspection of the posts, gates, hinges, and latches is also recommended, and it is important that posts and footings be protected to prevent soil erosion. In addition, care should be taken so that damage from string trimmers is minimized.
- Net Posts. We have assumed that the new posts will be replaced when the asphalt pavement is replaced.

Tennis court

Bocce ball and horseshoe pits

Bocce Ball Court. The community maintains a full bocce ball court. The overall condition of the court is good.

Volleyball

Tikki hut

Outdoor fireplace

Trellis

Volley Ball Court. The community maintains a full volley court. The overall condition of the court is good.

Indoor Recreational Facilities. The community maintains a full range of indoor recreational items. The overall condition of these is good. Items include indoor theater, ping pong, billiards, foosball, and cards.

Theater

Ping pong

Card room

Pool table

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 Nassau Grove HOA - Cash Flow Method Accounting Summary is an attachment to the Nassau Grove HOA - Replacement Reserve Study dated Revised October 20, 2014 and is for use by accounting and reserve professionals experienced in Association funding and accounting principles. This Summary consists of four reports, the 2015, 2016, and 2017 Cash Flow Method Category Funding Reports (3) and a Three-Year Replacement Funding Report.

- CASH FLOW METHOD CATEGORY FUNDING REPORT, 2015, 2016, and 2017. Each of the 215 Projected Replacements listed in the Nassau Grove HOA Replacement Reserve Inventory has been assigned to one of 14 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 $436,774 Beginning Balance (at the start of the Study Year) and the $361,788 of additional Replacement Reserve Funding in 2015 through 2017 (as calculated in the Replacement Reserve Analysis) to each of the 215 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 2015 through 2017.
  - Allocation of the $436,774 Beginning Balance to the Projected Replacements by Chronological Allocation.
  - Allocation of the $361,788 of additional Replacement Reserve Funding recommended in the Replacement Reserve Analysis in years 2015 through 2017, 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 $436,774 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 Nassau Grove HOA the Beginning Balance funds all Scheduled Replacements in the Study Year through 2023 and provides partial funding (12%) of replacements scheduled in 2024.
  - The next step is the allocation of the $120,596 of 2015 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 Nassau Grove HOA the Beginning Balance and the 2015 Replacement Reserve Funding, funds replacements through 2023 and partial funds (58.4%) replacements in 2024.
  - Allocations of the 2016 and 2017 Reserve Funding are done using the same methodology.
  - The Three-Year Replacement Funding Report details component by component allocations made by Chronological Allocation.

2015 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 215 Projected Replacements included in the Nassau Grove HOA Replacement Reserve Inventory has been assigned to one of the 14 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 $436,774 as of the first day of the Study Year, January 1, 2015.
- Total reserve funding (including the Beginning Balance) of $557,370 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 2015 being accomplished in 2015 at a cost of $115,527.

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-1

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 COMPONENT	6 to 24 years	0 to 18 years	$505,123	$131,937	$117,432	($46,827)	$202,541
SITE COMPONENT (cont.)	6 to 24 years	0 to 18 years	$581,396	$122,399		($61,200)	$61,200
SITE COMPONENT (cont.)	60 years	6 to 60 years	$188,063	$18,806			$18,806
SITE COMPONENT (cont.)	8 to 40 years	7 to 36 years	$330,778	$53,124	$2,294		$55,418
CLUBHOUSE (CH)	7 to 40 years	2 to 35 years	$115,557	$10,966	$573		$11,539
CLUBHOUSE (CH) (cont.)	10 to 35 years	5 to 30 years	$87,595	$5,600			$5,600
CLUBHOUSE (Cont'd)	10 to 45 years	5 to 40 years	$232,995	$4,050			$4,050
CLUBHOUSE (Cont'd.)	10 to 21 years	3 to 16 years	$40,900	$7,050			$7,050
POOLHOUSE (PH), FILTERHOUSE (FH)	5 to 35 years	5 to 30 years	$47,323	$2,000			$2,000
GUARDHOUSE (GH)	10 to 35 years	5 to 30 years	$75,022	$450			$450
SWIMMING POOL	6 to 45 years	2 to 40 years	$421,028	$46,111			$46,111
SWIMMING POOL	15 to 30 years	10 to 25 years	$45,818				
COURTS	5 to 20 years	0 to 20 years	$45,550	$17,831	$298	($7,500)	$10,629
EXERCISE EQUIPMENT	10 to 20 years	5 to 15 years	$22,450	$16,450			$16,450

2016 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 215 Projected Replacements included in the Nassau Grove HOA Replacement Reserve Inventory has been assigned to one of the 14 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 $441,843 on January 1, 2016.
- Total reserve funding (including the Beginning Balance) of $677,966 in 2015 through 2016.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.

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.

2016 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF-2

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2016 BEGINNING BALANCE	2016 RESERVE FUNDING	2016 PROJECTED REPLACEMENTS	2016 END OF YEAR BALANCE
SITE COMPONENT	6 to 24 years	5 to 17 years	$505,123	$202,541	$106,614		$309,155
SITE COMPONENT (cont.)	6 to 24 years	5 to 17 years	$581,396	$61,200			$61,200
SITE COMPONENT (cont.)	60 years	5 to 59 years	$188,063	$18,806			$18,806
SITE COMPONENT (cont.)	8 to 40 years	6 to 35 years	$330,778	$55,418	$2,657		$58,075
CLUBHOUSE (CH)	7 to 40 years	1 to 34 years	$115,557	$11,539	$520		$12,059
CLUBHOUSE (CH) (cont.)	10 to 35 years	4 to 29 years	$87,595	$5,600	$1,481		$7,081
CLUBHOUSE (Cont'd)	10 to 45 years	4 to 39 years	$232,995	$4,050	$1,175		$5,225
CLUBHOUSE (Cont'd.)	10 to 21 years	2 to 15 years	$40,900	$7,050	$237		$7,287
POOLHOUSE (PH), FILTERHOUSE (FH)	5 to 35 years	4 to 29 years	$47,323	$2,000	$609		$2,609
GUARDHOUSE (GH)	10 to 35 years	4 to 29 years	$75,022	$450	$2,777		$3,227
SWIMMING POOL	6 to 45 years	1 to 39 years	$421,028	$46,111	$1,697		$47,808
SWIMMING POOL	15 to 30 years	9 to 24 years	$45,818		$990		$990
COURTS	5 to 20 years	3 to 19 years	$45,550	$10,629	$1,685		$12,314
EXERCISE EQUIPMENT	10 to 20 years	4 to 14 years	$22,450	$16,450	$154		$16,604

2017 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 215 Projected Replacements included in the Nassau Grove HOA Replacement Reserve Inventory has been assigned to one of the 14 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 $562,439 on January 1, 2017.
- Total Replacement Reserve funding (including the Beginning Balance) of $798,562 in 2015 to 2017.
- 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 2017 being accomplished in 2017 at a cost of $8,617.

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.

2017 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF-3

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2017 BEGINNING BALANCE	2017 RESERVE FUNDING	2017 PROJECTED REPLACEMENTS	2017 END OF YEAR BALANCE
SITE COMPONENT	6 to 24 years	4 to 16 years	$505,123	$309,155	($0)		$309,155
SITE COMPONENT (cont.)	6 to 24 years	4 to 16 years	$581,396	$61,200			$61,200
SITE COMPONENT (cont.)	60 years	4 to 58 years	$188,063	$18,806			$18,806
SITE COMPONENT (cont.)	8 to 40 years	5 to 34 years	$330,778	$58,075	$6,238		$64,312
CLUBHOUSE (CH)	7 to 40 years	0 to 33 years	$115,557	$12,059		($1,248)	$10,811
CLUBHOUSE (CH) (cont.)	10 to 35 years	3 to 28 years	$87,595	$7,081	$16,081		$23,162
CLUBHOUSE (Cont'd)	10 to 45 years	3 to 38 years	$232,995	$5,225	$12,753		$17,978
CLUBHOUSE (Cont'd.)	10 to 21 years	1 to 14 years	$40,900	$7,287	$2,574		$9,861
POOLHOUSE (PH), FILTERHOUSE (FH)	5 to 35 years	3 to 28 years	$47,323	$2,609	$6,609		$9,217
GUARDHOUSE (GH)	10 to 35 years	3 to 28 years	$75,022	$3,227	$30,144		$33,371
SWIMMING POOL	6 to 45 years	0 to 38 years	$421,028	$47,808	$18,427	($7,369)	$58,866
SWIMMING POOL	15 to 30 years	8 to 23 years	$45,818	$990	$10,750		$11,740
COURTS	5 to 20 years	2 to 18 years	$45,550	$12,314	$15,351		$27,665
EXERCISE EQUIPMENT	10 to 20 years	3 to 13 years	$22,450	$16,604	$1,670		$18,273

CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CF-4 below details the allocation of the $436,774 Beginning Balance, as reported by the Association and the $361,788 of Replacement Reserve Funding calculated by the Cash Flow Method in 2015 to 2017, to the 215 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 $436,774 on January 1, 2015.
- Replacement Reserves on Deposit totaling $441,843 on January 1, 2016.
- Replacement Reserves on Deposit totaling $562,439 on January 1, 2017.
- Total Replacement Reserve funding (including the Beginning Balance) of $798,562 in 2015 to 2017.
- 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 to 2017 being accomplished as scheduled in the Replacement Reserve Inventory at a cost of $124,144.

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	2015 Reserve Funding	2015 Projected Replacements	2015 End of Year Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance
	SITE COMPONENT											
1	Asphalt, seal coat - Nouveu Rd - Entry	6,344	6,344			6,344			6,344			6,344
2	Asphalt, mill, overlay - Nouveu Rd - E	53,921										
3	Asphalt, seal coat - Nouveu Rd	7,090	14,179		(7,090)	7,090			7,090			7,090
4	Asphalt, mill, overlay - Nouveu Rd	60,262	7,519	27,645		35,163	25,098		60,262			60,262
5	Asphalt, seal coat - Spring Valley Ln	7,382	14,763		(7,382)	7,382			7,382			7,382
6	Asphalt, mill, overlay - Spring Valley l	62,744	7,828	28,783		36,612	26,132		62,744			62,744
7	Asphalt, seal coat - Carneros Ave - 1	6,698	13,396		(6,698)	6,698			6,698			6,698
8	Asphalt, mill, overlay - Carneros Ave-	56,933	7,103	26,118		33,221	23,712		56,933			56,933
9	Asphalt, seal coat - Chablis Ln	8,947	17,893		(8,947)	8,947			8,947			8,947
10	Asphalt, mill, overlay - Chablis Ln	76,046	9,488	34,886		44,374	31,672		76,046			76,046
11	Asphalt, seal coat - Anjou Ct	4,821	9,643		(4,821)	4,821			4,821			4,821
12	Asphalt, mill, overlay - Anjou Ct	40,982										
13	Asphalt, seal coat - Alsace Ct	6,568	13,137		(6,568)	6,568			6,568			6,568
14	Asphalt, mill, overlay - Alsace Ct	55,831										
15	Asphalt, seal coat - Corvino Ct	5,322	10,643		(5,322)	5,322			5,322			5,322
16	Asphalt, mill, overlay - Corvino Ct	45,234										
	SITE COMPONENT (cont.)											
17	Asphalt, seal coat - Grenche Ct	7,502	15,004		(7,502)	7,502			7,502			7,502
18	Asphalt, mill, overlay - Grenche Ct	63,765										
19	Asphalt, seal coat - Carneros Ave	21,287	42,573		(21,287)	21,287			21,287			21,287
20	Asphalt, mill, overlay - Carneros Ave	180,936										
21	Asphalt, seal coat - Port Circle	3,825	7,650		(3,825)	3,825			3,825			3,825
22	Asphalt, mill, overlay - Port Circle	32,511										
23	Asphalt, seal coat - Corkscrew Ct	9,842	19,685		(9,842)	9,842			9,842			9,842
24	Asphalt, mill, overlay - Corkscrew Ct	83,660										
25	Asphalt, seal coat - Rosemount Ln	3,415	6,831		(3,415)	3,415			3,415			3,415
26	Asphalt, mill, overlay - Rosemount Ln	29,031										
27	Asphalt, seal coat - Cuvee Ln	8,021	16,043		(8,021)	8,021			8,021			8,021
28	Asphalt, mill, overlay - Cuvee Ln	68,182										
29	Asphalt, seal coat - Shiraz Ln	2,769	5,538		(2,769)	2,769			2,769			2,769
30	Asphalt, mill, overlay - Shiraz Ln	23,537										
31	Asphalt, seal coat - Club House	4,538	9,076		(4,538)	4,538			4,538			4,538
32	Asphalt, mill, overlay - Club House	38,575										
	SITE COMPONENT (cont.)											
33	Concrete sidewalk (1%)	15,672	15,672			15,672			15,672			15,672
34	Concrete sidewalk (1%)	15,672										
35	Concrete sidewalk (1%)	15,672										
36	Concrete sidewalk (1%)	15,672										
37	Concrete sidewalk (1%)	15,672										
38	Concrete sidewalk (1%)	15,672										
39	Concrete sidewalk (1%)	15,672										

CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CF-4 cont'd

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2015 Reserve Funding	2015 Projected Replacements	2015 End of Year Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance
40	Concrete sidewalk (1%)	15,672										
41	Concrete sidewalk (1%)	15,672										
42	Concrete sidewalk (1%)	15,672										
43	Concrete curb (1%)	3,134	3,134			3,134			3,134			3,134
44	Concrete curb (1%)	3,134										
45	Concrete curb (1%)	3,134										
46	Concrete curb (1%)	3,134										
47	Concrete curb (1%)	3,134										
48	Concrete curb (1%)	3,134										
49	Concrete curb (1%)	3,134										
50	Concrete curb (1%)	3,134										
51	Concrete curb (1%)	3,134										
52	Concrete curb (1%)	3,134										
	SITE COMPONENT (cont.)											
53	Wood pedestrian bridge, railing, PVC	13,510										
54	Wood pedestrian bridge, decking, tex	23,834										
55	Wood pedestrian bridge, structure	65,894										
56	Wood pedestrian bridge, canopy	5,000	624	2,294		2,918	2,082		5,000			5,000
57	Trash corral surround, 8' wood	2,240										
58	Irrigation controller	10,000					427		427	4,638		5,065
59	Irrigation pump	9,000										
60	Irrigation well	12,000										
61	Stormwater pond dredging	100,000										
62	Aerator	48,000	48,000			48,000			48,000			48,000
63	Diffuser (two outlets)	4,500	4,500			4,500			4,500			4,500
64	Geo syn pond liner (10%)	7,500										
65	Pond well	6,000										
66	Pond pump	4,500										
67	Stone retaining wall repointing (10%)	3,350										
68	Waterfall pump	1,950					83		83	904		988
69	Waterfall lights	1,500					64		64	696		760
70	Gazebo	12,000										
	CLUBHOUSE (CH)											
71	CH Shingle asphalt/fiberglass	27,323										
72	CH Metal roofing	5,019										
73	CH Gutter & downspouts	3,640										
74	CH Vinyl siding	9,864										
75	CH Masonry, repointing (10%)	2,280										
76	CH Windows - double hung	15,400										
77	CH Window - fixed	3,960										
78	CH Doors - ext - full glazed - pr	6,000										
79	CH Doors - ext - full glazed	3,800										
80	CH Doors - ext - HM	950										
81	CH Doors - int - glazed - pr	1,000										
82	CH Doors - int - flush	3,720										
83	CH Doors - int - glazed	2,500										
84	CH Doors - int - flush - pr	1,200										
85	CH Floor - carpet	9,563	9,563			9,563			9,563			9,563
86	CH Floor - quarry tile	10,602										
87	CH Flooring, wood, refinish	1,248	1,404	573		1,976	520		2,496		(1,248)	1,248
88	CH Flooring, wood, replace	7,488										
	CLUBHOUSE (CH) (cont.)											
89	CH Cabinets, base	6,325					270		270	2,933		3,204
90	CH Cabinets, wall	6,300					269		269	2,922		3,191
91	CH Dishwasher	1,550	1,550			1,550			1,550			1,550
92	CH Refrigerator	2,100	2,100			2,100			2,100			2,100
93	CH Microwave	700	700			700			700			700
94	CH Ice maker	500	500			500			500			500
95	CH Wine chiller	750	750			750			750			750
96	CH Counter top - solid surface	29,000										
97	CH Counter top - plastic lam	5,000										
98	CH Commodes	3,500										
99	CH Urinals	450										
100	CH Sink - restroom	2,800										
101	CH Toilet partition	3,750					160		160	1,739		1,899
102	CH Lockers - wd	16,800					718		718	7,791		8,509
103	CH Water cooler	1,500					64		64	696		760
104	CH Mop sink	570										
105	CH Showers	6,000										

CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CF-4 cont'd

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2015 Reserve Funding	2015 Projected Replacements	2015 End of Year Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance
	CLUBHOUSE (Cont'd)											
106	CH Light fixture - recessed	20,800										
107	CH Light fixture - pendant	2,375										
108	CH light fixture - wall mounted	1,820										
109	CH Light fixture - chandellere	6,000										
110	CH Fire alarm devices	6,500										
111	CH Exit signs	1,500										
112	CH Emergency lights	4,200										
113	CH Fire alarm system	12,500										
114	CH Sound system	15,000										
115	CH Speakers	2,550	2,550			2,550			2,550			2,550
116	CH Sprinkler system	15,250										
117	CH Water heater	1,500	1,500			1,500			1,500			1,500
118	CH HVAC system - split	90,000										
119	CH Electrical system	25,500										
120	CH Security system	24,000					1,025		1,025	11,130		12,156
121	CH Ceiling fans	3,500					150		150	1,623		1,773
	CLUBHOUSE (Cont'd.)											
122	CH Upholstered chair, large	3,600										
123	CH Hard chair	4,550										
124	CH Tables - end	1,000										
125	CH Tables - round	4,000										
126	CH Tables - rectangle	750										
127	CH Chair - bar	4,500										
128	CH Sofa	250										
129	CH TV	3,600										
130	CH Folding/stack chair	2,250										
131	CH Pool table	2,300										
132	CH Card tables	650					28		28	301		329
133	CH Ping pong table	250					11		11	116		127
134	CH Fossball	450					19		19	209		228
135	CH Theater seating	4,200					179		179	1,948		2,127
136	CH Gas fireplace components	1,500										
137	CH Outside tables	1,400	1,400			1,400			1,400			1,400
138	CH Outside chairs	4,000	4,000			4,000			4,000			4,000
139	CH Umberila	900	900			900			900			900
140	CH Outside fireplace, repoint	750	750			750			750			750
	POOLHOUSE (PH), FILTERHOUSE											
141	PH Shingle asphalt/fiberglass	3,579										
142	PH Gutter & downspouts	1,014										
143	PH Vinyl siding	2,784										
144	PH Wood Column	2,400										
145	PH Window - fixed	660										
146	PH Doors - ext - HM	1,900										
147	PH Light fixtures	1,800										
148	PH Commodes	2,500										
149	PH Urinals	900										
150	PH Sink - restroom	1,400										
151	PH Toilet partition	3,750					160		160	1,739		1,899
152	PH Water cooler	1,500					64		64	696		760
153	FH Shingle asphalt/fiberglass	3,579										
154	FH Gutter & downspouts	1,014										
155	FH Vinyl siding	2,784										
156	FH Wood Column	2,400										
157	FH Window - fixed	660										
158	FH Doors - ext - HM	1,900										
159	FH Light fixtures	1,800										
160	Tikki hut - roof thatch	2,000	2,000			2,000	85		2,085	928		3,013
161	Tikki hut - Bar work	2,000					85		85	928		1,013
162	Trellis	5,000					214		214	2,319		2,532
	GUARDHOUSE (GH)											
163	GH Metal roofing	2,673										
164	GH Vinyl siding	1,056										
165	GH Masonry, repointing (10%)	2,508										
166	GH Window - fixed	660										
167	GH Doors - ext - HM	950										
168	GH Light fixtures	450										
169	Entry access gate	40,000					1,709		1,709	18,550		20,259
170	Entry access gate, controls	20,000					854		854	9,275		10,130

CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CF-4 cont'd

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2015 Reserve Funding	2015 Projected Replacements	2015 End of Year Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance
171	Entry access gate, security	5,000					214		214	2,319		2,532
172	Entrance feature, repoint	1,275										
173	Entrance feature, stucco	450	450			450			450			450
	SWIMMING POOL											
174	Swimming pool, structure	245,635										
175	Swimming pool, whitecoat	19,840	19,840			19,840			19,840			19,840
176	Swimming pool, waterline tile	3,960	3,960			3,960			3,960			3,960
177	Swimming pool, coping	13,200										
178	Swimming pool, cover	7,369	14,738			14,738			14,738		(7,369)	7,369
179	Swimming pool, rails	3,750					160		160	1,739		1,899
180	Wading pool, structure	13,715										
181	Wading pool, whitecoat	1,108	1,108			1,108			1,108			1,108
182	Wading pool, waterline tile	765	765			765			765			765
183	Wading, coping	2,550										
184	Swimming pool, rails	750					32		32	348		380
185	Swimming pool, concrete deck (25%)	22,484					961		961	10,427		11,388
186	Swimming pool, concrete deck (25%)	22,484										
187	Swimming pool, concrete deck (25%)	22,484										
188	Swimming pool, concrete deck (25%)	22,484										
189	Wading pool pump	1,200	1,200			1,200			1,200			1,200
190	Swimming pool pump	4,500	4,500			4,500			4,500			4,500
191	Swimming pool filter	11,000					470		470	5,101		5,571
192	Wading pool filter	1,750					75		75	812		886
	SWIMMING POOL											
193	Pool furniture, lounge	9,600					410		410	4,452		4,862
194	Pool furniture, table	2,160					92		92	1,002		1,094
195	Pool furniture, umbrella	4,050					173		173	1,878		2,051
196	Pool furniture, end table	1,320					56		56	612		669
197	Pool furniture, chair	5,280					226		226	2,449		2,674
198	Pool furniture, chair, swivel	770					33		33	357		390
199	Perimeter fence - 3"	22,638										
	COURTS											
200	Tennis court, color coat	7,500	15,000		(7,500)	7,500	320		7,820	3,478		11,299
201	Tennis court, resurface/overlay	18,000					769		769	8,348		9,117
202	Tennis court, post & footings	2,600					111		111	1,206		1,317
203	Tennis court, net	700	700			700	30		730	325		1,055
204	Tennis court, fence	8,400										
205	Volley ball	650	731	298		1,029	271		1,300			1,300
206	Horse shoe pits	1,000	1,000			1,000			1,000			1,000
207	Bocci ball	2,000										
208	Benches	1,600					68		68	742		810
209	Picnic tables	2,700					115		115	1,252		1,368
210	Grill, charcoal	400	400			400			400			400
	EXERCISE EQUIPMENT											
211	Treadmill	10,400	10,400			10,400			10,400			10,400
212	Elliptical trainer	3,600	3,600			3,600			3,600			3,600
213	Elliptical trainer	3,600					154		154	1,670		1,823
214	Universal equipment	2,400										
215	Upright bike	2,450	2,450			2,450			2,450			2,450

COMPONENT METHOD ACCOUNTING SUMMARY

This Nassau Grove HOA - Component Method Accounting Summary is an attachment to the Nassau Grove HOA - Replacement Reserve Study dated Revised October 20, 2014 and is for use by accounting and reserve professionals experienced in Association funding and accounting principals. This Summary consists of four reports, the 2015, 2016, and 2017 Component Method Category Funding Reports (3) and a Three-Year Replacement Funding Report.

- COMPONENT METHOD CATEGORY FUNDING REPORT, 2015, 2016, and 2017. Each of the 215 Projected Replacements listed in the Nassau Grove HOA Replacement Reserve Inventory has been assigned to one of 14 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 $436,774 Beginning Balance (at the start of the Study Year) and the $509,282 of additional Replacement Reserve funding in 2015 through 2017 (as calculated in the Replacement Reserve Analysis) to each of the 215 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 2015 through 2017.
  - Allocation of the $436,774 Beginning Balance to the Projected Replacements by the Component Method.
  - Allocation of the $509,282 of additional Replacement Reserve Funding recommended in the Replacement Reserve Analysis in years 2015 through 2017, by the Component Method.

2015 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 215 Projected Replacements included in the Nassau Grove HOA Replacement Reserve Inventory has been assigned to one of the 14 categories listed in TABLE CM-1 below. This calculated data is a summar 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 $436,774 as of the first day of the Study Year, January 1, 2015.
- Total reserve funding (including the Beginning Balance) of $625,734 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 2015 being accomplished in 2015 at a cost of $115,527.

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-1

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 COMPONENT	6 to 24 years	0 to 18 years	$505,123	$121,000	$49,458	$46,827	$123,631
SITE COMPONENT (cont.)	6 to 24 years	0 to 18 years	$581,396	$114,935	$55,159	$61,200	$108,894
SITE COMPONENT (cont.)	60 years	6 to 60 years	$188,063	$47,602	$5,359		$52,961
SITE COMPONENT (cont.)	8 to 40 years	7 to 36 years	$330,778	$18,256	$17,527		$35,783
CLUBHOUSE (CH)	7 to 40 years	2 to 35 years	$115,557	$11,954	$5,968		$17,922
CLUBHOUSE (CH) (cont.)	10 to 35 years	5 to 30 years	$87,595	$10,213	$4,992		$15,205
CLUBHOUSE (Cont'd)	10 to 45 years	5 to 40 years	$232,995	$23,274	$11,021		$34,295
CLUBHOUSE (Cont'd.)	10 to 21 years	3 to 16 years	$40,900	$6,425	$3,212		$9,637
POOLHOUSE (PH), FILTERHOUSE (FH)	5 to 35 years	5 to 30 years	$47,323	$4,968	$2,700		$7,668
GUARDHOUSE (GH)	10 to 35 years	5 to 30 years	$75,022	$11,118	$5,527		$16,645
SWIMMING POOL	6 to 45 years	2 to 40 years	$421,028	$46,013	$17,082		$63,095
SWIMMING POOL	15 to 30 years	10 to 25 years	$45,818	$5,353	$2,583		$7,937
COURTS	5 to 20 years	0 to 20 years	$45,550	$11,554	$5,810	$7,500	$9,864
EXERCISE EQUIPMENT	10 to 20 years	5 to 15 years	$22,450	$4,108	$2,563		$6,671

2016 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 215 Projected Replacements included in the Nassau Grove HOA Replacement Reserve Inventory has been assigned to one of the 14 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 $510,208 on January 1, 2016.
- Total reserve funding (including the Beginning Balance) of $785,895 in 2015 through 2016.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.

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.

2016 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM-2

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2016 BEGINNING BALANCE	2016 RESERVE FUNDING	2016 PROJECTED REPLACEMENTS	2016 END OF YEAR BALANCE
SITE COMPONENT	6 to 24 years	5 to 17 years	$505,123	$123,631	$37,683		$161,314
SITE COMPONENT (cont.)	6 to 24 years	5 to 17 years	$581,396	$108,894	$39,770		$148,664
SITE COMPONENT (cont.)	60 years	5 to 59 years	$188,063	$52,961	$5,359		$58,320
SITE COMPONENT (cont.)	8 to 40 years	6 to 35 years	$330,778	$35,783	$17,527		$53,310
CLUBHOUSE (CH)	7 to 40 years	1 to 34 years	$115,557	$17,922	$5,968		$23,890
CLUBHOUSE (CH) (cont.)	10 to 35 years	4 to 29 years	$87,595	$15,205	$4,992		$20,197
CLUBHOUSE (Cont'd)	10 to 45 years	4 to 39 years	$232,995	$34,295	$11,021		$45,317
CLUBHOUSE (Cont'd.)	10 to 21 years	2 to 15 years	$40,900	$9,637	$3,212		$12,848
POOLHOUSE (PH), FILTERHOUSE (FH)	5 to 35 years	4 to 29 years	$47,323	$7,668	$2,700		$10,369
GUARDHOUSE (GH)	10 to 35 years	4 to 29 years	$75,022	$16,645	$5,527		$22,171
SWIMMING POOL	6 to 45 years	1 to 39 years	$421,028	$63,095	$17,082		$80,176
SWIMMING POOL	15 to 30 years	9 to 24 years	$45,818	$7,937	$2,583		$10,520
COURTS	5 to 20 years	3 to 19 years	$45,550	$9,864	$4,174		$14,039
EXERCISE EQUIPMENT	10 to 20 years	4 to 14 years	$22,450	$6,671	$2,563		$9,235

2017 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 215 Projected Replacements included in the Nassau Grove HOA Replacement Reserve Inventory has been assigned to one of the 14 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 $670,369 on January 1, 2017.
- Total Replacement Reserve funding (including the Beginning Balance) of $946,056 in 2015 to 2017.
- 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 2017 being accomplished in 2017 at a cost of $8,617.

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.

2017 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM-3

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2017 BEGINNING BALANCE	2017 RESERVE FUNDING	2017 PROJECTED REPLACEMENTS	2017 END OF YEAR BALANCE
SITE COMPONENT	6 to 24 years	4 to 16 years	$505,123	$161,314	$37,683		$198,997
SITE COMPONENT (cont.)	6 to 24 years	4 to 16 years	$581,396	$148,664	$39,770		$188,434
SITE COMPONENT (cont.)	60 years	4 to 58 years	$188,063	$58,320	$5,359		$63,678
SITE COMPONENT (cont.)	8 to 40 years	5 to 34 years	$330,778	$53,310	$17,527		$70,837
CLUBHOUSE (CH)	7 to 40 years	0 to 33 years	$115,557	$23,890	$5,968	$1,248	$28,610
CLUBHOUSE (CH) (cont.)	10 to 35 years	3 to 28 years	$87,595	$20,197	$4,992		$25,188
CLUBHOUSE (Cont'd)	10 to 45 years	3 to 38 years	$232,995	$45,317	$11,021		$56,338
CLUBHOUSE (Cont'd.)	10 to 21 years	1 to 14 years	$40,900	$12,848	$3,212		$16,060
POOLHOUSE (PH), FILTERHOUSE (FH)	5 to 35 years	3 to 28 years	$47,323	$10,369	$2,700		$13,069
GUARDHOUSE (GH)	10 to 35 years	3 to 28 years	$75,022	$22,171	$5,527		$27,698
SWIMMING POOL	6 to 45 years	0 to 38 years	$421,028	$80,176	$17,082	$7,369	$89,889
SWIMMING POOL	15 to 30 years	8 to 23 years	$45,818	$10,520	$2,583		$13,103
COURTS	5 to 20 years	2 to 18 years	$45,550	$14,039	$4,174		$18,213
EXERCISE EQUIPMENT	10 to 20 years	3 to 13 years	$22,450	$9,235	$2,563		$11,798

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CM-4 below details the allocation of the $436,774 Beginning Balance, as reported by the Association and the $509,282 of Replacement Reserve Funding calculated by the Cash Flow Method in 2015 to 2017, to the 215 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 $436,774 on January 1, 2015.
- Replacement Reserves on Deposit totaling $510,208 on January 1, 2016.
- Replacement Reserves on Deposit totaling $670,369 on January 1, 2017.
- Total Replacement Reserve funding (including the Beginning Balance) of $946,056 in 2015 to 2017.
- 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 to 2017 being accomplished as scheduled in the Replacement Reserve Inventory at a cost of $124,144.

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	2015 Reserve Funding	2015 Projected Replacements	2015 End of Year Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance
	SITE COMPONENT											
1	Asphalt, seal coat - Nouveu Rd - Entry	6,344		906		906	906		1,812	906		2,719
2	Asphalt, mill, overlay - Nouveu Rd - E	53,921		2,838		2,838	2,838		5,676	2,838		8,514
3	Asphalt, seal coat - Nouveu Rd	7,090	4,125	2,964	(7,090)		1,182		1,182	1,182		2,363
4	Asphalt, mill, overlay - Nouveu Rd	60,262	15,584	4,468		20,052	4,468		24,520	4,468		28,988
5	Asphalt, seal coat - Spring Valley Ln	7,382	4,295	3,086	(7,382)		1,230		1,230	1,230		2,461
6	Asphalt, mill, overlay - Spring Valley l	62,744	16,226	4,652		20,878	4,652		25,530	4,652		30,182
7	Asphalt, seal coat - Carneros Ave - 1	6,698	3,897	2,801	(6,698)		1,116		1,116	1,116		2,233
8	Asphalt, mill, overlay - Carneros Ave-	56,933	14,724	4,221		18,945	4,221		23,165	4,221		27,386
9	Asphalt, seal coat - Chablis Ln	8,947	5,206	3,741	(8,947)		1,491		1,491	1,491		2,982
10	Asphalt, mill, overlay - Chablis Ln	76,046	19,667	5,638		25,304	5,638		30,942	5,638		36,580
11	Asphalt, seal coat - Anjou Ct	4,821	2,805	2,016	(4,821)		804		804	804		1,607
12	Asphalt, mill, overlay - Anjou Ct	40,982	7,949	2,065		10,013	2,065		12,078	2,065		14,143
13	Asphalt, seal coat - Alsace Ct	6,568	3,822	2,746	(6,568)		1,095		1,095	1,095		2,189
14	Asphalt, mill, overlay - Alsace Ct	55,831	10,829	2,813		13,642	2,813		16,454	2,813		19,267
15	Asphalt, seal coat - Corvino Ct	5,322	3,097	2,225	(5,322)		887		887	887		1,774
16	Asphalt, mill, overlay - Corvino Ct	45,234	8,774	2,279		11,052	2,279		13,331	2,279		15,610
	SITE COMPONENT (cont.)											
17	Asphalt, seal coat - Grenche Ct	7,502	4,365	3,137	(7,502)		1,250		1,250	1,250		2,501
18	Asphalt, mill, overlay - Grenche Ct	63,765	12,368	3,212		15,580	3,212		18,793	3,212		22,005
19	Asphalt, seal coat - Carneros Ave	21,287	12,386	8,900	(21,287)		3,548		3,548	3,548		7,096
20	Asphalt, mill, overlay - Carneros Ave	180,936	29,245	11,669		40,914	11,669		52,582	11,669		64,251
21	Asphalt, seal coat - Port Circle	3,825	2,226	1,599	(3,825)		637		637	637		1,275
22	Asphalt, mill, overlay - Port Circle	32,511	3,941	1,504		5,445	1,504		6,948	1,504		8,452
23	Asphalt, seal coat - Corkscrew Ct	9,842	5,727	4,115	(9,842)		1,640		1,640	1,640		3,281
24	Asphalt, mill, overlay - Corkscrew Ct	83,660	10,142	3,869		14,011	3,869		17,881	3,869		21,750
25	Asphalt, seal coat - Rosemount Ln	3,415	1,987	1,428	(3,415)		569		569	569		1,138
26	Asphalt, mill, overlay - Rosemount Ln	29,031	3,519	1,343		4,862	1,343		6,205	1,343		7,547
27	Asphalt, seal coat - Cuvee Ln	8,021	4,667	3,354	(8,021)		1,337		1,337	1,337		2,674
28	Asphalt, mill, overlay - Cuvee Ln	68,182	11,020	4,397		15,417	4,397		19,815	4,397		24,212
29	Asphalt, seal coat - Shiraz Ln	2,769	1,611	1,158	(2,769)		462		462	462		923
30	Asphalt, mill, overlay - Shiraz Ln	23,537	2,853	1,089		3,942	1,089		5,030	1,089		6,119
31	Asphalt, seal coat - Club House	4,538	2,641	1,898	(4,538)		756		756	756		1,513
32	Asphalt, mill, overlay - Club House	38,575	6,235	2,488		8,723	2,488		11,210	2,488		13,698
	SITE COMPONENT (cont.)											
33	Concrete sidewalk (1%)	15,672	8,055	1,088		9,143	1,088		10,231	1,088		11,320
34	Concrete sidewalk (1%)	15,672	7,143	656		7,799	656		8,455	656		9,111
35	Concrete sidewalk (1%)	15,672	6,231	497		6,728	497		7,225	497		7,722
36	Concrete sidewalk (1%)	15,672	5,320	414		5,734	414		6,148	414		6,562
37	Concrete sidewalk (1%)	15,672	4,408	363		4,771	363		5,134	363		5,498
38	Concrete sidewalk (1%)	15,672	3,496	329		3,825	329		4,154	329		4,483
39	Concrete sidewalk (1%)	15,672	2,584	304		2,888	304		3,193	304		3,497

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CM-4 cont'd

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2015 Reserve Funding	2015 Projected Replacements	2015 End of Year Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance
40	Concrete sidewalk (1%)	15,672	1,672	286		1,958	286		2,243	286		2,529
41	Concrete sidewalk (1%)	15,672	760	271		1,031	271		1,302	271		1,573
42	Concrete sidewalk (1%)	15,672		257		257	257		514	257		771
43	Concrete curb (1%)	3,134	1,611	218		1,829	218		2,046	218		2,264
44	Concrete curb (1%)	3,134	1,429	131		1,560	131		1,691	131		1,822
45	Concrete curb (1%)	3,134	1,246	99		1,346	99		1,445	99		1,544
46	Concrete curb (1%)	3,134	1,064	83		1,147	83		1,230	83		1,312
47	Concrete curb (1%)	3,134	882	73		954	73		1,027	73		1,100
48	Concrete curb (1%)	3,134	699	66		765	66		831	66		897
49	Concrete curb (1%)	3,134	517	61		578	61		639	61		699
50	Concrete curb (1%)	3,134	334	57		392	57		449	57		506
51	Concrete curb (1%)	3,134	152	54		206	54		260	54		315
52	Concrete curb (1%)	3,134		51		51	51		103	51		154
	SITE COMPONENT (cont.)											
53	Wood pedestrian bridge, railing, PVC	13,510	1,310	488		1,798	488		2,286	488		2,774
54	Wood pedestrian bridge, decking, tex	23,834	2,311	861		3,172	861		4,033	861		4,894
55	Wood pedestrian bridge, structure	65,894	6,390	2,380		8,771	2,380		11,151	2,380		13,531
56	Wood pedestrian bridge, canopy	5,000	970	403		1,373	403		1,776	403		2,179
57	Trash corral surround, 8' wood	2,240	326	128		453	128		581	128		709
58	Irrigation controller	10,000	1,552	768		2,320	768		3,088	768		3,856
59	Irrigation pump	9,000	1,309	513		1,822	513		2,335	513		2,847
60	Irrigation well	12,000	1,164	433		1,597	433		2,031	433		2,464
61	Stormwater pond dredging	100,000		3,226		3,226	3,226		6,452	3,226		9,677
62	Aerator	48,000		6,000		6,000	6,000		12,000	6,000		18,000
63	Diffuser (two outlets)	4,500		563		563	563		1,125	563		1,688
64	Geo syn pond liner (10%)	7,500	1,091	427		1,518	427		1,946	427		2,373
65	Pond well	6,000	873	342		1,215	342		1,556	342		1,898
66	Pond pump	4,500	436	163		599	163		761	163		924
67	Stone retaining wall repointing (10%)	3,350		209		209	209		419	209		628
68	Waterfall pump	1,950		177		177	177		355	177		532
69	Waterfall lights	1,500		136		136	136		273	136		409
70	Gazebo	12,000	524	310		834	310		1,144	310		1,454
	CLUBHOUSE (CH)											
71	CH Shingle asphalt/fiberglass	27,323	2,544	1,180		3,724	1,180		4,904	1,180		6,084
72	CH Metal roofing	5,019	334	151		485	151		636	151		787
73	CH Gutter & downspouts	3,640	339	157		496	157		653	157		810
74	CH Vinyl siding	9,864	918	426		1,344	426		1,770	426		2,196
75	CH Masonry, repointing (10%)	2,280		143		143	143		285	143		428
76	CH Windows - double hung	15,400	1,434	665		2,099	665		2,764	665		3,429
77	CH Window - fixed	3,960	263	119		383	119		502	119		621
78	CH Doors - ext - full glazed - pr	6,000	698	331		1,030	331		1,361	331		1,692
79	CH Doors - ext - full glazed	3,800	442	210		652	210		862	210		1,072
80	CH Doors - ext - HM	950	111	52		163	52		215	52		268
81	CH Doors - int - glazed - pr	1,000	93	43		136	43		179	43		223
82	CH Doors - int - flush	3,720	346	161		507	161		668	161		828
83	CH Doors - int - glazed	2,500	233	108		341	108		449	108		557
84	CH Doors - int - flush - pr	1,200	112	52		164	52		215	52		267
85	CH Floor - carpet	9,563	2,226	1,223		3,448	1,223		4,671	1,223		5,894
86	CH Floor - quarry tile	10,602	617	277		894	277		1,172	277		1,449
87	CH Flooring, wood, refinish	1,248	415	278		693	278		970	278	(1,248)	
88	CH Flooring, wood, replace	7,488	830	392		1,222	392		1,613	392		2,005
	CLUBHOUSE (CH) (cont.)											
89	CH Cabinets, base	6,325	981	486		1,467	486		1,953	486		2,439
90	CH Cabinets, wall	6,300	978	484		1,461	484		1,945	484		2,429
91	CH Dishwasher	1,550	361	198		559	198		757	198		955
92	CH Refrigerator	2,100	489	269		757	269		1,026	269		1,294
93	CH Microwave	700	163	90		252	90		342	90		431
94	CH Ice maker	500	116	64		180	64		244	64		308
95	CH Wine chiller	750	175	96		270	96		366	96		462
96	CH Counter top - solid surface	29,000	1,929	873		2,802	873		3,675	873		4,548
97	CH Counter top - plastic lam	5,000	466	216		681	216		897	216		1,113
98	CH Commodes	3,500	272	124		396	124		520	124		644
99	CH Urinals	450	35	16		51	16		67	16		83
100	CH Sink - restroom	2,800	217	99		317	99		416	99		515
101	CH Toilet partition	3,750	582	288		870	288		1,158	288		1,446
102	CH Lockers - wd	16,800	2,607	1,290		3,897	1,290		5,187	1,290		6,478
103	CH Water cooler	1,500	233	115		348	115		463	115		578
104	CH Mop sink	570	53	25		78	25		102	25		127
105	CH Showers	6,000	559	259		818	259		1,077	259		1,336

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CM-4 cont'd

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2015 Reserve Funding	2015 Projected Replacements	2015 End of Year Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance
	CLUBHOUSE (Cont'd)											
106	CH Light fixture - recessed	20,800	1,936	898		2,835	898		3,733	898		4,631
107	CH Light fixture - pendant	2,375	221	103		324	103		426	103		529
108	CH light fixture - wall mounted	1,820	169	79		248	79		327	79		405
109	CH Light fixture - chandellere	6,000	466	213		678	213		891	213		1,104
110	CH Fire alarm devices	6,500	756	359		1,115	359		1,474	359		1,833
111	CH Exit signs	1,500	175	83		257	83		340	83		423
112	CH Emergency lights	4,200	489	232		721	232		953	232		1,185
113	CH Fire alarm system	12,500	1,455	690		2,145	690		2,835	690		3,526
114	CH Sound system	15,000	1,746	828		2,574	828		3,402	828		4,231
115	CH Speakers	2,550	594	326		920	326		1,246	326		1,572
116	CH Sprinkler system	15,250	789	353		1,141	353		1,494	353		1,847
117	CH Water heater	1,500	349	192		541	192		733	192		925
118	CH HVAC system - split	90,000	8,379	3,887		12,266	3,887		16,152	3,887		20,039
119	CH Electrical system	25,500	1,484	667		2,151	667		2,818	667		3,485
120	CH Security system	24,000	3,724	1,843		5,567	1,843		7,411	1,843		9,254
121	CH Ceiling fans	3,500	543	269		812	269		1,081	269		1,350
	CLUBHOUSE (Cont'd.)											
122	CH Upholstered chair, large	3,600	493	239		732	239		971	239		1,210
123	CH Hard chair	4,550	623	302		925	302		1,227	302		1,529
124	CH Tables - end	1,000	137	66		203	66		270	66		336
125	CH Tables - round	4,000	548	266		813	266		1,079	266		1,344
126	CH Tables - rectangle	750	103	50		152	50		202	50		252
127	CH Chair - bar	4,500	616	299		915	299		1,214	299		1,512
128	CH Sofa	250	34	17		51	17		67	17		84
129	CH TV	3,600	493	239		732	239		971	239		1,210
130	CH Folding/stack chair	2,250	308	149		457	149		607	149		756
131	CH Pool table	2,300	315	153		468	153		620	153		773
132	CH Card tables	650	101	50		151	50		201	50		251
133	CH Ping pong table	250	39	19		58	19		77	19		96
134	CH Fossball	450	70	35		104	35		139	35		174
135	CH Theater seating	4,200	652	323		974	323		1,297	323		1,619
136	CH Gas fireplace components	1,500	166	78		245	78		323	78		402
137	CH Outside tables	1,400	326	179		505	179		684	179		863
138	CH Outside chairs	4,000	931	511		1,443	511		1,954	511		2,466
139	CH Umberila	900	209	115		325	115		440	115		555
140	CH Outside fireplace, repoint	750	262	122		384	122		506	122		628
	POOLHOUSE (PH), FILTERHOUSE											
141	PH Shingle asphalt/fiberglass	3,579	333	155		488	155		642	155		797
142	PH Gutter & downspouts	1,014	94	44		138	44		182	44		226
143	PH Vinyl siding	2,784	259	120		379	120		500	120		620
144	PH Wood Column	2,400	186	85		271	85		356	85		442
145	PH Window - fixed	660	44	20		64	20		84	20		104
146	PH Doors - ext - HM	1,900	221	105		326	105		431	105		536
147	PH Light fixtures	1,800	209	99		309	99		408	99		508
148	PH Commodes	2,500	194	89		283	89		371	89		460
149	PH Urinals	900	70	32		102	32		134	32		166
150	PH Sink - restroom	1,400	109	50		158	50		208	50		258
151	PH Toilet partition	3,750	582	288		870	288		1,158	288		1,446
152	PH Water cooler	1,500	233	115		348	115		463	115		578
153	FH Shingle asphalt/fiberglass	3,579	333	155		488	155		642	155		797
154	FH Gutter & downspouts	1,014	94	44		138	44		182	44		226
155	FH Vinyl siding	2,784	259	120		379	120		500	120		620
156	FH Wood Column	2,400	186	85		271	85		356	85		442
157	FH Window - fixed	660	44	20		64	20		84	20		104
158	FH Doors - ext - HM	1,900	221	105		326	105		431	105		536
159	FH Light fixtures	1,800	209	99		309	99		408	99		508
160	Tikki hut - roof thatch	2,000		333		333	333		667	333		1,000
161	Tikki hut - Bar work	2,000	310	154		464	154		618	154		771
162	Trellis	5,000	776	384		1,160	384		1,544	384		1,928
	GUARDHOUSE (GH)											
163	GH Metal roofing	2,673	622	98		720	98		817	98		915
164	GH Vinyl siding	1,056	98	46		144	46		190	46		235
165	GH Masonry, repointing (10%)	2,508		157		157	157		314	157		470
166	GH Window - fixed	660	44	20		64	20		84	20		104
167	GH Doors - ext - HM	950	111	52		163	52		215	52		268
168	GH Light fixtures	450	52	25		77	25		102	25		127
169	Entry access gate	40,000	6,207	3,072		9,279	3,072		12,351	3,072		15,423
170	Entry access gate, controls	20,000	3,103	1,536		4,639	1,536		6,175	1,536		7,712

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CM-4 cont'd

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2015 Reserve Funding	2015 Projected Replacements	2015 End of Year Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance
171	Entry access gate, security	5,000	776	384		1,160	384		1,544	384		1,928
172	Entrance feature, repoint	1,275		80		80	80		159	80		239
173	Entrance feature, stucco	450	105	58		162	58		220	58		277
	SWIMMING POOL											
174	Swimming pool, structure	245,635	12,705	5,681		18,386	5,681		24,067	5,681		29,749
175	Swimming pool, whitecoat	19,840	4,618	2,537		7,155	2,537		9,692	2,537		12,229
176	Swimming pool, waterline tile	3,960	922	506		1,428	506		1,934	506		2,441
177	Swimming pool, coping	13,200	1,536	729		2,265	729		2,994	729		3,723
178	Swimming pool, cover	7,369	2,144	1,742		3,886	1,742		5,627	1,742	(7,369)	
179	Swimming pool, rails	3,750	582	288		870	288		1,158	288		1,446
180	Wading pool, structure	13,715	709	317		1,027	317		1,344	317		1,661
181	Wading pool, whitecoat	1,108	258	142		399	142		541	142		683
182	Wading pool, waterline tile	765	178	98		276	98		374	98		472
183	Wading, coping	2,550	297	141		438	141		578	141		719
184	Swimming pool, rails	750	116	58		174	58		232	58		289
185	Swimming pool, concrete deck (25%)	22,484	9,485	1,182		10,667	1,182		11,849	1,182		13,030
186	Swimming pool, concrete deck (25%)	22,484	6,214	775		6,989	775		7,764	775		8,539
187	Swimming pool, concrete deck (25%)	22,484	2,944	630		3,574	630		4,204	630		4,835
188	Swimming pool, concrete deck (25%)	22,484		548		548	548		1,097	548		1,645
189	Wading pool pump	1,200	279	153		433	153		586	153		740
190	Swimming pool pump	4,500	1,047	575		1,623	575		2,198	575		2,774
191	Swimming pool filter	11,000	1,707	845		2,552	845		3,397	845		4,241
192	Wading pool filter	1,750	272	134		406	134		540	134		675
	SWIMMING POOL											
193	Pool furniture, lounge	9,600	1,490	737		2,227	737		2,964	737		3,702
194	Pool furniture, table	2,160	335	166		501	166		667	166		833
195	Pool furniture, umbrella	4,050	628	311		939	311		1,251	311		1,562
196	Pool furniture, end table	1,320	205	101		306	101		408	101		509
197	Pool furniture, chair	5,280	819	406		1,225	406		1,630	406		2,036
198	Pool furniture, chair, swivel	770	119	59		179	59		238	59		297
199	Perimeter fence - 3"	22,638	1,756	803		2,559	803		3,363	803		4,166
	COURTS											
200	Tennis court, color coat	7,500	4,364	3,136	(7,500)		1,500		1,500	1,500		3,000
201	Tennis court, resurface/overlay	18,000	4,713	1,208		5,921	1,208		7,129	1,208		8,337
202	Tennis court, post & footings	2,600	681	174		855	174		1,030	174		1,204
203	Tennis court, net	700		117		117	117		233	117		350
204	Tennis court, fence	8,400	978	464		1,441	464		1,905	464		2,369
205	Volley ball	650		130		130	130		260	130		390
206	Horse shoe pits	1,000	58	105		163	105		267	105		372
207	Bocci ball	2,000		95		95	95		190	95		286
208	Benches	1,600	248	123		371	123		494	123		617
209	Picnic tables	2,700	419	207		626	207		834	207		1,041
210	Grill, charcoal	400	93	51		144	51		195	51		247
	EXERCISE EQUIPMENT											
211	Treadmill	10,400	2,421	1,330		3,751	1,330		5,080	1,330		6,410
212	Elliptical trainer	3,600	838	460		1,298	460		1,759	460		2,219
213	Elliptical trainer	3,600		327		327	327		655	327		982
214	Universal equipment	2,400	279	133		412	133		544	133		677
215	Upright bike	2,450	570	313		884	313		1,197	313		1,510

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 ala carte from privately owned country clubs, swim clubs, tennis clubs, and gymnasiums. Today, 60% of all new residential construction, i.e. townhouses, single-family homes, condominiums, and cooperatives, is in Common Interest Developments (CID). In a CID, a homeowner is bound to a Community Association that owns, maintains, and is responsible for periodic replacements of various components that may include the roads, curbs, sidewalks, playgrounds, streetlights, recreational facilities, and other community facilities and infrastructure.

The growth of Community Associations has been explosive. In 1965, there were only 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.

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 Remaining Economic Life. Used in the Normal Replacement Schedules, this term is the number of years until the current item is expected to need replacement. Normally, this number would be considered 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.

Incremental Replacement Item. Incremental replacement refers to an inventory component that will be replaced in portions over the life of the study rather than in its entirety, as distinguished below, see Normal Replacement Item.

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 is replaced in its entirety. (As distinguished from an Incremental Replacement Item, 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 numbers of years into the future for which expenditures are projected and reserve levels calculated. This number should be large enough to include the projected replacement of every item on the schedule, at least once. 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

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

http://bcove.me/fazwdk3h

clients?

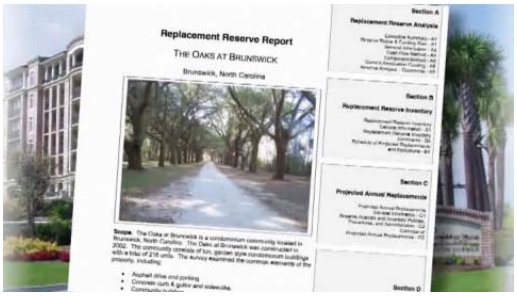
What is my role as a Board Member?
Will a Reserve Study meet my community's needs?

http://bcove.me/n6nwnktv

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

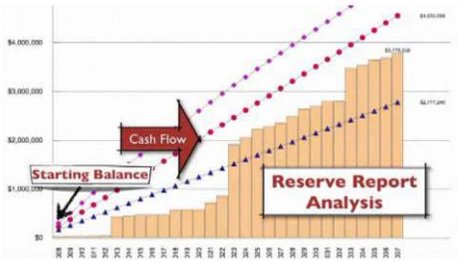
http://bcove.me/2vfih1tz

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?

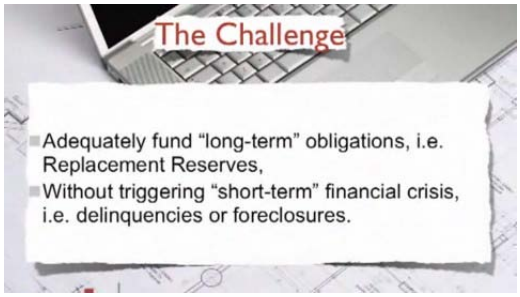


http://bcove.me/7buer3n8

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