

REPLACEMENT RESERVE REPORT 2009

LAFAYETTE VILLAGE COMMUNITY ASSOCIATION



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REPLACEMENT RESERVE REPORT

LAFAYETTE VILLAGE COMMUNITY ASSOCIATION

Annandale, Virginia



Scope. Lafayette Village Community Association is a community located in Annandale, Virginia. Lafayette Village was constructed in 1975 and consists of 315 townhome buildings and single family homes. The survey examined the common elements of the property, including:

- Asphalt roads and parking areas.
- Concrete sidewalks and curb/gutter.
- Fencing and entrance signage.
- Pool house and pool facility.
- Tot lot, basketball court and multipurpose court.

Level of Service. This study has been performed as a Reserve Replacement Study (Level I) as defined under the National Reserve Study Standards that have been adopted by the Community Associations Institute. The component inventory was derived from measurements taken during the site visit. The analyst ascertained the condition of all components during the site visit from visual inspection of each component. The life expectancy and the value of components are provided based in part on these observations, and the fund status and funding plan have been derived from analysis of this data.

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

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

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

- The Request for Proposal submitted and executed by the Association.
- Our visual evaluation and measurements on May 2, 23 and 29, 2008. Miller - Dodson Associates has visually inspected the common elements of the property in order to ascertain the remaining useful life and the replacement costs of these components.

Acknowledgement. Miller - Dodson Associates would like to acknowledge the assistance and input of Diane Tschirhart with Klingbeil, Powell & Alrutz, Inc. (KPA). Ms. Tschirhart/KPA only recent took over management of the community and did not have information related to major replacements, but was able to provide financial information.

Analyst's Credentials. Mrs. Heather N. Naples holds a Bachelors Degree in Civil Engineering and a Masters Degree in Engineering Administration from Virginia Tech. A registered Professional Engineer, Mrs. Naples has experience in all phases of project design, contract administration, and inspection of public and private facilities. As an Engineer, she has completed multiple facilities engineering studies, life cycle cost studies, and analysis for repair versus replacement of facilities and systems. She is currently an Engineer and Reserve Analyst for Miller - Dodson Associates, Inc.

Respectfully submitted,
MILLER - DODSON ASSOCIATES

Heather Naples, P.E., R.S.
Reserve Specialist

EXECUTIVE SUMMARY

The Lafayette Village Community Assoc Replacement Reserve Inventory identifies 109 Projected Replacements for funding from Replacement Reserves, with an estimated one-time replacement cost of \$1,378,611.

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:

\$74,078 CASH FLOW METHOD MINIMUM ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2009.

\$19.60 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 2036 and the CFM - Minimum Annual Funding of Replacement Reserves in 2037 declines to \$167,399 (\$44.29 per unit, per month), after the completion of \$4,358,106 of replacements in 2009 to 2036.

After 2036 the CFM - Minimum Annual Funding remains constant for the remainder of the Study Period.

\$141,261 COMPONENT METHOD RECOMMENDED ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2009.

\$37.37 Per unit (average), recommended monthly funding of Replacement Reserves

The Component Method is a time tested and 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 \$799,329.

The Association reports having \$289,124 on deposit, which is 36.2% funded.

\$44,100 CURRENT ANNUAL FUNDING OF REPLACEMENT RESERVES (as reported by the Association).

\$11.67 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 10 years of the 30-year Study Period, and a maximum shortfall of \$-1,493,428 occurs in 2036.

REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION

The Lafayette Village Community Assoc 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, Adjustments (for interest, inflation, and/or a constant increase in annual funding), 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, 2009.

STUDY PERIOD

The Replacement Reserve Analysis evaluates the funding of Replacement Reserves over a 30-year Study Period that begins on January 1, 2009.

ADJUSTMENTS

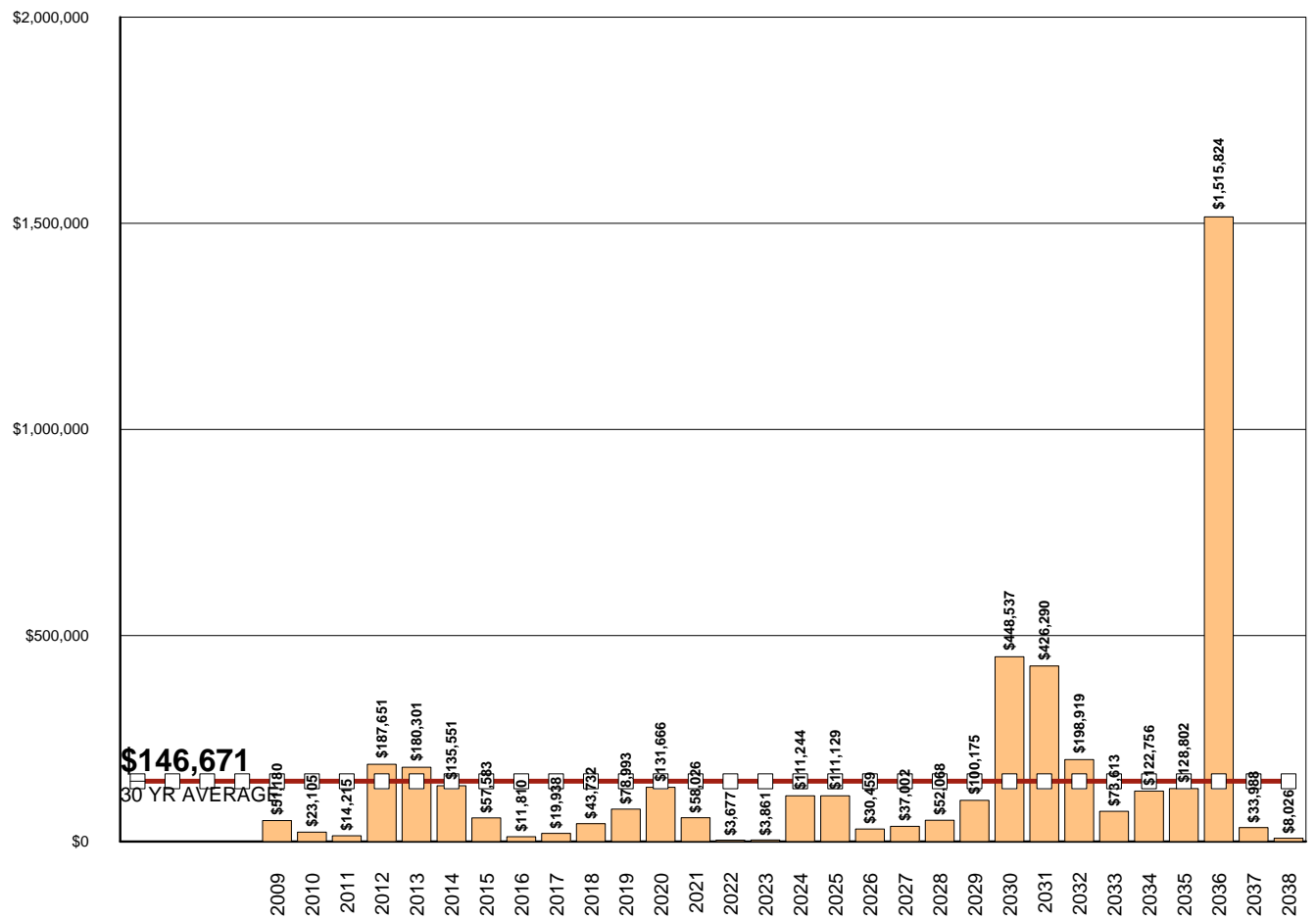
The Analysis had been adjusted for the following rates of interest, inflation, and constant annual increase in funding.
INTEREST RATE. The Analysis has not been adjusted for interest earned on Replacement Reserves on Deposit.
5.00 Percent - RATE OF INFLATION. Assumed rate at which the cost of Projected Replacements will increase.
5.00 Percent - ANNUAL INCREASE. Assumed rate of increase in annual funding of Replacement Reserves.

BEGINNING BALANCE

The Association reports Replacement Reserves on Deposit totaling \$289,124 at the start of the Study Year.

Graph #1. Annual Expenditures for Projected Replacements

This bar graph summarizes annual expenditures for the \$4,400,120 of Projected Replacements identified in the Replacement Reserve Inventory over the 30-year Study Period. The red line shows the average annual expenditure of \$146,671.



PROJECTED REPLACEMENTS

The Lafayette Village Community Assoc Replacement Reserve Inventory (Section B) identifies 109 Projected Replacements with a one-time Replacement Cost of \$1,378,611 and replacements totaling \$4,400,120 over 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 Replacement Reserve Inventory also identifies 69 Excluded Items. Expenditures for the replacement of 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 rationale behind these exclusions is discussed in detail on Page B1.

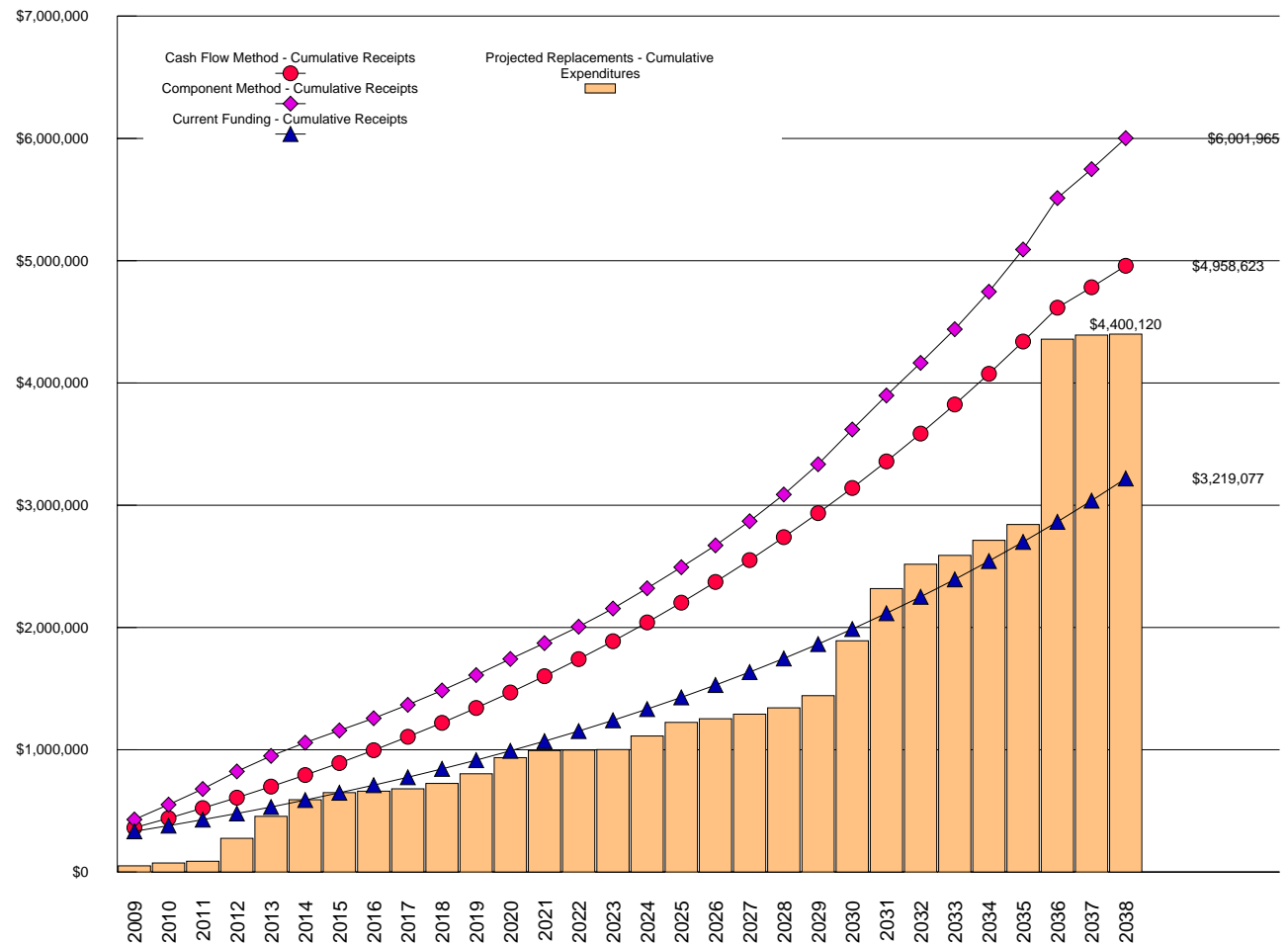
Expenditures from Replacements Reserves should be made only after consultation with an accounting professional.

The Section B - Replacement Reserve Inventory, contains Tables that list each Projected Replacement (and any Excluded Items) broken down into 17 major categories (Pages B3 to B18). 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.

The accuracy of this Replacement Reserve Analysis is dependent upon expenditures from Replacement Reserves being made only for the Projected Replacements specifically listed in the Replacement Reserve Inventory.

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

\$74,078 CASH FLOW METHOD MINIMUM ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2009.

\$19.60 Per unit (average), minimum monthly funding of Replacement Reserves

General. The Cash Flow 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 of \$68,931, which is 5.0 percent of the one-time replacement cost of the Projected Replacements listed in the Inventory
- Allow a constant annual funding level between peaks in cumulative expenditures

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

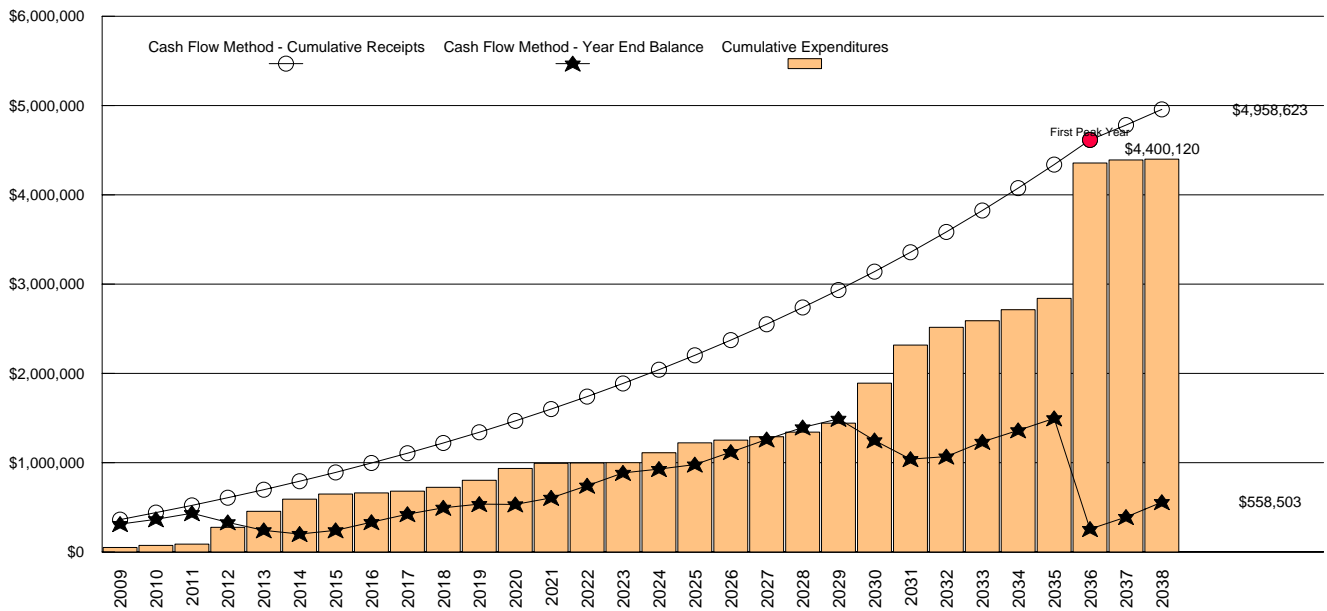


Table #1. Cash Flow Method Data - Years 1 through 30

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Starting balance	\$289,124									
Annual deposit	\$74,078	\$77,782	\$81,671	\$85,754	\$90,042	\$94,544	\$99,271	\$104,235	\$109,447	\$114,919
Expenditures	\$51,180	\$23,105	\$14,215	\$187,651	\$180,301	\$135,551	\$57,583	\$11,810	\$19,938	\$43,732
Year end balance	\$312,022	\$366,699	\$434,155	\$332,258	\$241,999	\$200,993	\$242,681	\$335,106	\$424,614	\$495,801
Minimum rec. funding lvl.	\$68,931	\$72,377	\$75,996	\$79,796	\$83,786	\$87,975	\$92,374	\$96,992	\$101,842	\$106,934
Cumulative expenditures	\$51,180	\$74,285	\$88,499	\$276,150	\$456,451	\$592,002	\$649,585	\$661,395	\$681,333	\$725,065
Cumulative receipts	\$363,202	\$440,983	\$522,654	\$608,408	\$698,450	\$792,994	\$892,266	\$996,500	\$1,105,947	\$1,220,866
Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Annual deposit	\$120,665	\$126,698	\$133,033	\$139,685	\$146,669	\$154,002	\$161,702	\$169,788	\$178,277	\$187,191
Expenditures	\$78,993	\$131,666	\$58,026	\$3,677	\$3,861	\$111,244	\$111,129	\$30,459	\$37,002	\$52,068
Year end balance	\$537,472	\$532,505	\$607,512	\$743,519	\$886,327	\$929,086	\$979,659	\$1,118,988	\$1,260,263	\$1,395,386
Minimum rec. funding lvl.	\$112,281	\$117,895	\$123,789	\$129,979	\$136,478	\$143,302	\$150,467	\$157,990	\$165,890	\$174,184
Cumulative expenditures	\$804,058	\$935,724	\$993,750	\$997,427	\$1,001,288	\$1,112,532	\$1,223,660	\$1,254,119	\$1,291,121	\$1,343,189
Cumulative receipts	\$1,341,531	\$1,468,229	\$1,601,262	\$1,740,946	\$1,887,615	\$2,041,617	\$2,203,320	\$2,373,107	\$2,551,384	\$2,738,575
Year	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Annual deposit	\$196,550	\$206,378	\$216,697	\$227,532	\$238,908	\$250,854	\$263,396	\$276,566	\$167,399	\$175,769
Expenditures	\$100,175	\$448,537	\$426,290	\$198,919	\$73,613	\$122,756	\$128,802	\$1,515,824	\$33,988	\$8,026
Year end balance	\$1,491,761	\$1,249,602	\$1,040,008	\$1,068,620	\$1,233,916	\$1,362,013	\$1,496,608	\$257,349	\$390,761	\$558,503
Minimum rec. funding lvl.	\$182,893	\$192,038	\$201,640	\$211,722	\$222,308	\$233,423	\$245,094	\$257,349	\$270,217	\$283,727
Cumulative expenditures	\$1,443,364	\$1,891,902	\$2,318,192	\$2,517,111	\$2,590,724	\$2,713,480	\$2,842,281	\$4,358,106	\$4,392,094	\$4,400,120
Cumulative receipts	\$2,935,125	\$3,141,503	\$3,358,200	\$3,585,731	\$3,824,639	\$4,075,493	\$4,338,889	\$4,615,455	\$4,782,854	\$4,958,623

First Peak Year

COMPONENT METHOD

\$141,261 COMPONENT METHOD RECOMMENDED ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2009.

\$37.37 Per unit (average), recommended monthly funding of Replacement Reserves

The Component Method is a time tested and very conservative mathematical model developed by HUD in the early 1980s. The calculation of Recommended Annual Funding is a multi-step process outlined in the Appendix.

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

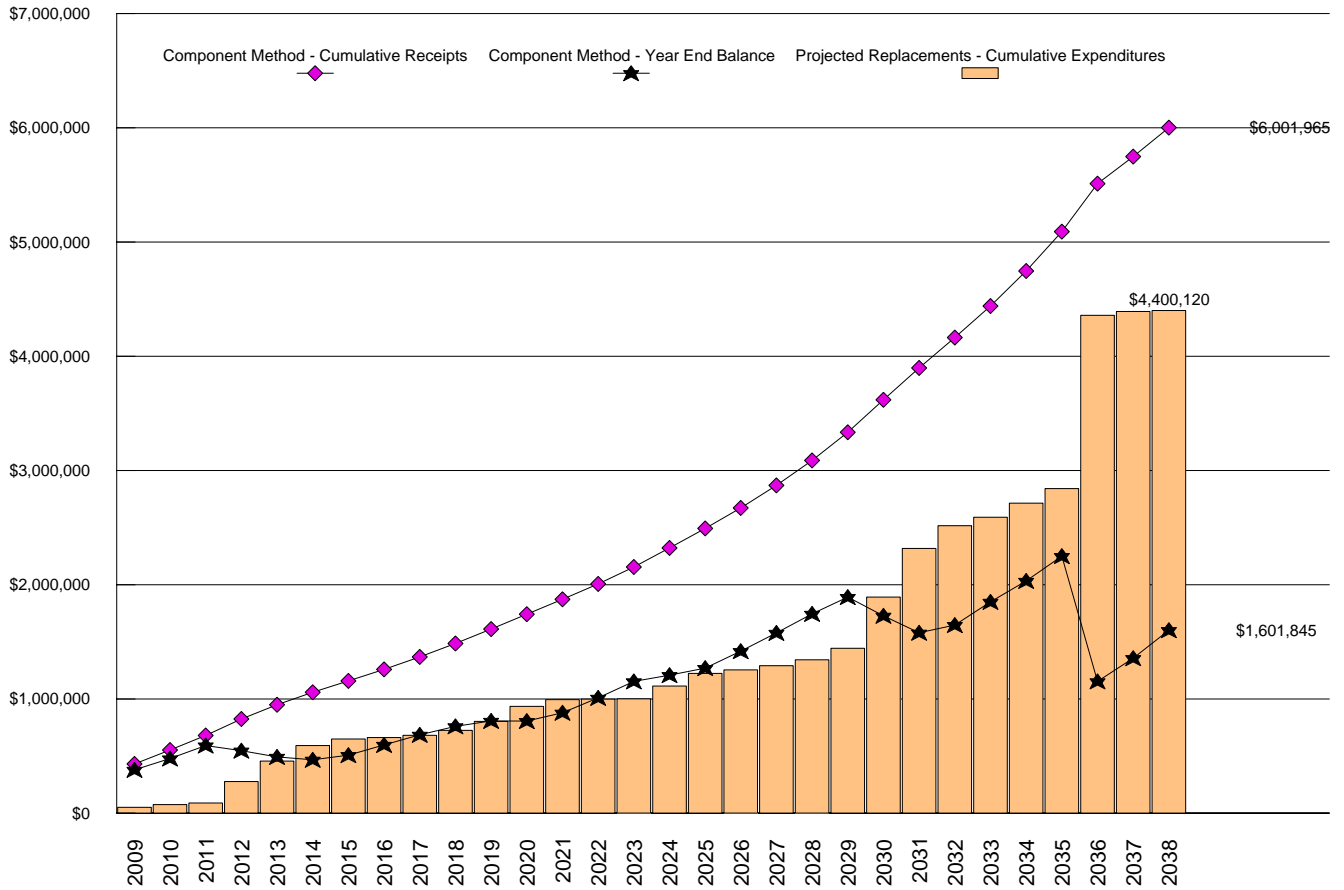


Table #2. Component Method Data - Years 1 through 30

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Starting balance	\$289,124									
Annual deposit	\$141,261	\$121,822	\$127,883	\$143,758	\$125,672	\$109,148	\$99,272	\$100,296	\$109,001	\$118,270
Expenditures	\$51,180	\$23,105	\$14,215	\$187,651	\$180,301	\$135,551	\$57,583	\$11,810	\$19,938	\$43,732
Year end balance	\$379,204	\$477,922	\$591,590	\$547,697	\$493,069	\$466,666	\$508,355	\$596,841	\$685,904	\$760,442
Cumulative Expenditures	\$51,180	\$74,285	\$88,499	\$276,150	\$456,451	\$592,002	\$649,585	\$661,395	\$681,333	\$725,065
Cumulative Receipts	\$430,385	\$552,206	\$680,089	\$823,847	\$949,520	\$1,058,668	\$1,157,940	\$1,258,236	\$1,367,237	\$1,485,507
Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Annual deposit	\$125,498	\$131,449	\$130,258	\$134,496	\$147,818	\$166,258	\$171,943	\$178,799	\$197,353	\$218,237
Expenditures	\$78,993	\$131,666	\$58,026	\$3,677	\$3,861	\$111,244	\$111,129	\$30,459	\$37,002	\$52,068
Year end balance	\$806,947	\$806,729	\$878,962	\$1,009,781	\$1,153,739	\$1,208,753	\$1,269,567	\$1,417,907	\$1,578,258	\$1,744,427
Cumulative Expenditures	\$804,058	\$935,724	\$993,750	\$997,427	\$1,001,288	\$1,112,532	\$1,223,660	\$1,254,119	\$1,291,121	\$1,343,189
Cumulative Receipts	\$1,611,005	\$1,742,454	\$1,872,712	\$2,007,208	\$2,155,027	\$2,321,285	\$2,493,228	\$2,672,026	\$2,869,379	\$3,087,616
Year	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Annual deposit	\$247,656	\$284,445	\$278,310	\$265,946	\$276,068	\$306,062	\$345,942	\$419,390	\$236,966	\$253,564
Expenditures	\$100,175	\$448,537	\$426,290	\$198,919	\$73,613	\$122,756	\$128,802	\$1,515,824	\$33,988	\$8,026
Year end balance	\$1,891,907	\$1,727,815	\$1,579,835	\$1,646,861	\$1,849,317	\$2,032,623	\$2,249,763	\$1,153,329	\$1,356,307	\$1,601,845
Cumulative Expenditures	\$1,443,364	\$1,891,902	\$2,318,192	\$2,517,111	\$2,590,724	\$2,713,480	\$2,842,281	\$4,358,106	\$4,392,094	\$4,400,120
Cumulative Receipts	\$3,335,272	\$3,619,716	\$3,898,027	\$4,163,972	\$4,440,040	\$4,746,102	\$5,092,045	\$5,511,435	\$5,748,401	\$6,001,965

CURRENT FUNDING

\$44,100 CURRENT ANNUAL FUNDING OF REPLACEMENT RESERVES
(as reported by the Association).

\$11.67 Per unit (average), reported current monthly funding of Replacement Reserves

Our evaluation of the Current Association Funding assumes that the Association will continue to fund Replacement Reserves at the current level of \$44,100 per year in each of the 30 years of the Study Period.

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

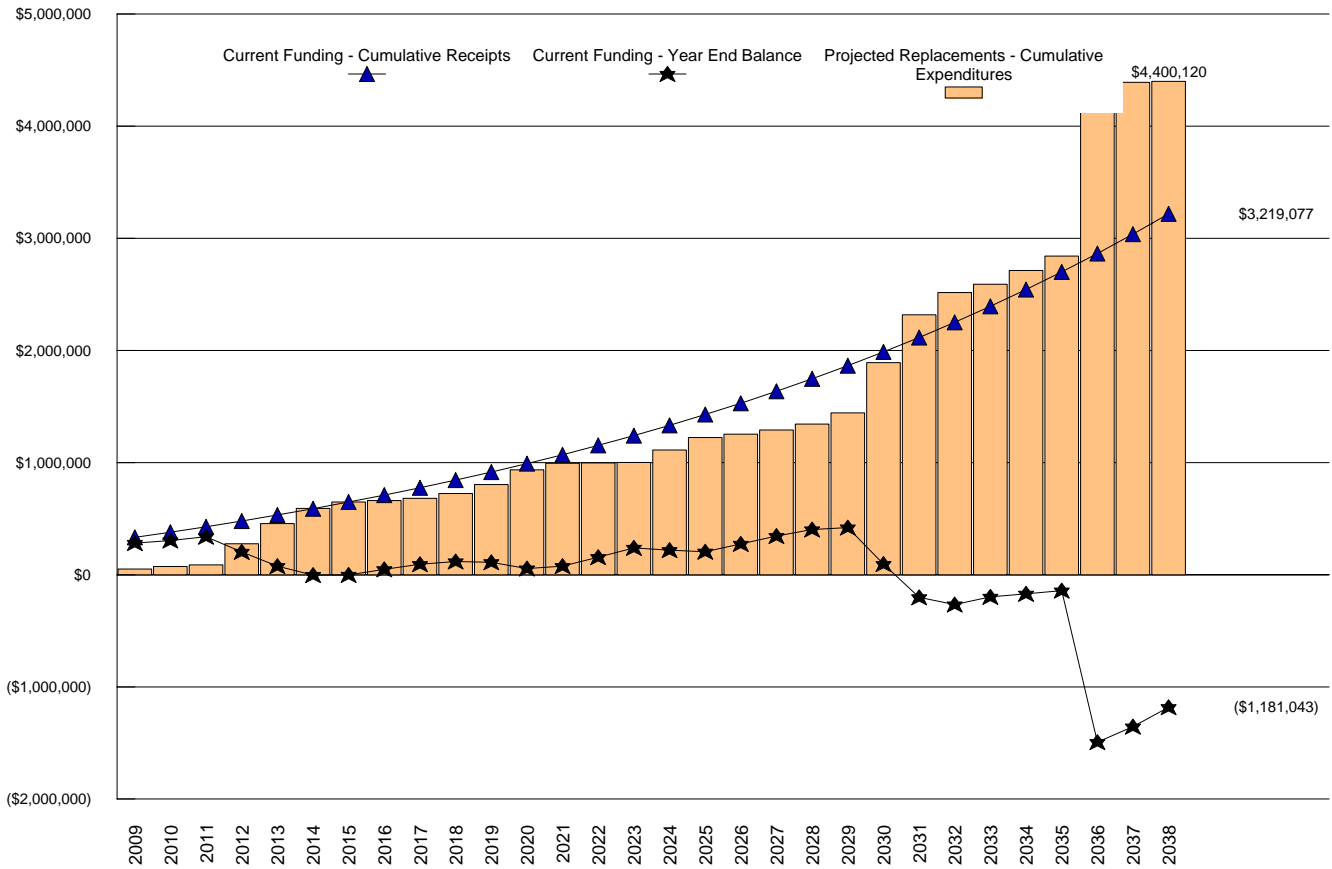


Table #3. Current Funding Data - Years 1 through 30

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Starting balance	\$289,124									
Annual deposit	\$44,100	\$46,305	\$48,620	\$51,051	\$53,604	\$56,284	\$59,098	\$62,053	\$65,156	\$68,414
Expenditures	\$51,180	\$23,105	\$14,215	\$187,651	\$180,301	\$135,551	\$57,583	\$11,810	\$19,938	\$43,732
Year end balance	\$282,044	\$305,244	\$339,650	\$203,051	\$76,353	(\$2,913)	(\$1,398)	\$48,845	\$94,063	\$118,744
Cumulative Expenditures	\$51,180	\$74,285	\$88,499	\$276,150	\$456,451	\$592,002	\$649,585	\$661,395	\$681,333	\$725,065
Cumulative Receipts	\$333,224	\$379,529	\$428,149	\$479,201	\$532,804	\$589,088	\$648,187	\$710,240	\$775,395	\$843,809
Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Annual deposit	\$71,834	\$75,426	\$79,197	\$83,157	\$87,315	\$91,681	\$96,265	\$101,078	\$106,132	\$111,439
Expenditures	\$78,993	\$131,666	\$58,026	\$3,677	\$3,861	\$111,244	\$111,129	\$30,459	\$37,002	\$52,068
Year end balance	\$111,585	\$55,345	\$76,516	\$155,997	\$239,451	\$219,888	\$205,024	\$275,643	\$344,773	\$404,144
Cumulative expenditures	\$804,058	\$935,724	\$993,750	\$997,427	\$1,001,288	\$1,112,532	\$1,223,660	\$1,254,119	\$1,291,121	\$1,343,189
Cumulative receipts	\$915,643	\$991,069	\$1,070,267	\$1,153,424	\$1,240,739	\$1,332,419	\$1,428,684	\$1,529,762	\$1,635,894	\$1,747,333
Year	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Annual deposit	\$117,010	\$122,861	\$129,004	\$135,454	\$142,227	\$149,338	\$156,805	\$164,645	\$172,878	\$181,522
Expenditures	\$100,175	\$448,537	\$426,290	\$198,919	\$73,613	\$122,756	\$128,802	\$1,515,824	\$33,988	\$8,026
Year end balance	\$420,979	\$95,302	(\$201,984)	(\$265,449)	(\$196,835)	(\$170,252)	(\$142,249)	(\$1,493,428)	(\$1,354,538)	(\$1,181,043)
Cumulative Expenditures	\$1,443,364	\$1,891,902	\$2,318,192	\$2,517,111	\$2,590,724	\$2,713,480	\$2,842,281	\$4,358,106	\$4,392,094	\$4,400,120
Cumulative Receipts	\$1,864,343	\$1,987,204	\$2,116,208	\$2,251,662	\$2,393,889	\$2,543,227	\$2,700,032	\$2,864,678	\$3,037,556	\$3,219,077

REPLACEMENT RESERVE STUDY - SUPPLEMENTAL COMMENTS

- ' 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.
- ' Lafayette Village Community Assoc has 315 units. The type of property is Association.
- ' Our calculations assume that Replacement Reserves are not subject to tax.
- ' 8/7/08. Added inflation factor per Diane Tschirhart.

REPLACEMENT RESERVE INVENTORY GENERAL INFORMATION

Lafayette Village Community Assoc - Replacement Reserve Inventory identifies 178 items. Two types of items are identified, Projected Replacements and Excluded Items:

- ' PROJECTED REPLACEMENTS. 109 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 \$1,378,611. Replacements totaling \$4,400,120 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. 69 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, partial replacements, repairs, capital improvements, and one-time only replacements.

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

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

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

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

The rationale for the exclusion of an item from funding by Replacement Reserves is discussed in more detail in the 'Comments' section of its page of the Replacement Reserve Inventory.

- ' CATEGORIES. The 178 items included in the Lafayette Village Community Assoc Replacement Reserve Inventory are divided into 17 major categories. Each category is printed on a separate page, Pages B3 to B18.
- ' 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 property manager, 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 life expectancy 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 109 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, FT-foot, 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 two sources to develop the unit cost data shown in the Inventory; industry standard estimating manuals published by R. S. Means Company, Inc., and data that we have developed based upon our experience with similar replacement projects. We frequently use our best professional judgment to modify these values to reflect conditions at the site that we believe will affect the unit costs. Actual Replacement Costs may vary substantially from our estimates because of unforeseen demolition costs, engineering and architectural fees, timing of the replacement, etc.

Normal Economic Life (Yrs). The number of years that a new and properly installed item should be expected to remain in service.

Economic Life Remaining (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 69 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. All expenditures from Replacement Reserves should be made only after consultation with an accounting professional.
- ' 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.

CONCRETE COMPONENTS
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
1	Concrete sidewalk (6%)	sf	1,790	\$7.50	60	none	\$13,425
2	Concrete sidewalk (6%)	sf	1,790	\$7.50	60	6	\$13,425
3	Concrete sidewalk (6%)	sf	1,790	\$7.50	60	12	\$13,425
4	Concrete sidewalk (6%)	sf	1,790	\$7.50	60	18	\$13,425
5	Concrete sidewalk (6%)	sf	1,790	\$7.50	60	24	\$13,425
6	Concrete sidewalk (6%)	sf	1,790	\$7.50	60	30	\$13,425
7	Concrete sidewalk (6%)	sf	1,790	\$7.50	60	36	\$13,425
8	Concrete sidewalk (6%)	sf	1,790	\$7.50	60	42	\$13,425
9	Concrete sidewalk (6%)	sf	1,790	\$7.50	60	48	\$13,425
10	Concrete sidewalk (6%)	sf	1,790	\$7.50	60	54	\$13,425
11	Concrete curb & gutter (6%)	ft	820	\$32.00	60	3	\$26,240
12	Concrete curb & gutter (6%)	ft	820	\$32.00	60	9	\$26,240
13	Concrete curb & gutter (6%)	ft	820	\$32.00	60	15	\$26,240
14	Concrete curb & gutter (6%)	ft	820	\$32.00	60	21	\$26,240
15	Concrete curb & gutter (6%)	ft	820	\$32.00	60	27	\$26,240
16	Concrete curb & gutter (6%)	ft	820	\$32.00	60	33	\$26,240
17	Concrete curb & gutter (6%)	ft	820	\$32.00	60	39	\$26,240
18	Concrete curb & gutter (6%)	ft	820	\$32.00	60	45	\$26,240
19	Concrete curb & gutter (6%)	ft	820	\$32.00	60	51	\$26,240
20	Concrete curb & gutter (6%)	ft	820	\$32.00	60	57	\$26,240

CONCRETE COMPONENTS - Replacement Costs - Subtotal \$396,650

CONCRETE COMPONENTS
COMMENTS

Empty area for comments.

CONCRETE COMPONENTS (cont.)

PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
21	Concrete pool deck (20%)	sf	1,260	\$9.50	50	none	\$11,970
22	Concrete pool deck (20%)	sf	1,260	\$9.50	50	5	\$11,970
23	Concrete pool deck (20%)	sf	1,260	\$9.50	50	10	\$11,970
24	Concrete pool deck (20%)	sf	1,260	\$9.50	50	15	\$11,970
25	Concrete pool deck (20%)	sf	1,260	\$9.50	50	20	\$11,970

CONCRETE COMPONENTS (cont.) - Replacement Costs - Subtotal \$59,850

CONCRETE COMPONENTS (cont.)

COMMENTS

Empty area for comments.

SITE IMPROVEMENTS

PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
26	Wood retaining wall, Hancock Forest	sf	160	\$32.00	20	8	\$5,120
27	Trash receptacles, composite	ea	4	\$275.00	20	16	\$1,100
28	Carved wood sign, pool building	sf	9	\$125.00	20	10	\$1,125
29	Carved wood sign, parking	ea	13	\$215.00	10	1	\$2,795

SITE IMPROVEMENTS - Replacement Costs - Subtotal \$10,140

SITE IMPROVEMENTS

COMMENTS

Empty area for comments.

**PAVEMENT
PROJECTED REPLACEMENTS**

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
30	Asphalt mill & overlay - Yorktown Village Pass	sf	24,605	\$1.44	18	3	\$35,431
31	Asphalt seal coat - Yorktown Village Pass	sf	24,605	\$0.16	5	none	\$3,937
32	Asphalt mill & overlay - Mount Airey Ln	sf	21,323	\$1.44	18	3	\$30,705
33	Asphalt seal coat - Mount Airey Ln	sf	21,323	\$0.16	5	none	\$3,412
34	Asphalt mill & overlay - Butterfield Ln	sf	34,110	\$1.44	18	3	\$49,118
35	Asphalt seal coat - Butterfield Ln	sf	34,110	\$0.16	5	none	\$5,458
36	Asphalt mill & overlay - Trammell Ct	sf	9,406	\$1.44	18	4	\$13,545
37	Asphalt seal coat - Trammell Ct	sf	9,406	\$0.16	5	1	\$1,505
38	Asphalt mill & overlay - Colonial Village Row	sf	16,157	\$1.44	18	4	\$23,266
39	Asphalt seal coat - Colonial Village Row	sf	16,157	\$0.16	5	1	\$2,585
40	Asphalt mill & overlay - Newport Glen Pass	sf	15,066	\$1.44	18	4	\$21,695
41	Asphalt seal coat - Newport Glen Pass	sf	15,066	\$0.16	5	1	\$2,411
42	Asphalt mill & overlay - Ashley Glen Rd	sf	22,442	\$1.44	18	4	\$32,316
43	Asphalt seal coat - Ashley Glen Rd	sf	22,442	\$0.16	5	1	\$3,591
44	Asphalt mill & overlay - Pool parking	sf	6,120	\$1.44	18	4	\$8,813
45	Asphalt seal coat - Pool parking	sf	6,120	\$0.16	5	1	\$979
PAVEMENT - Replacement Costs - Subtotal							\$238,766

**PAVEMENT
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.

PAVEMENT (cont.)
 PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
46	Asphalt mill & overlay - Byrds Nest Pass	sf	23,055	\$1.44	18	4	\$33,199
47	Asphalt seal coat - Byrds Nest Pass	sf	23,055	\$0.16	5	1	\$3,689
48	Asphalt mill & overlay - Peyton Forest Tr	sf	10,948	\$1.44	18	5	\$15,765
49	Asphalt seal coat - Peyton Forest Tr	sf	10,948	\$0.16	5	2	\$1,752
50	Asphalt mill & overlay - Brunswick Forest Pass	sf	8,325	\$1.44	18	5	\$11,988
51	Asphalt seal coat - Brunswick Forest Pass	sf	8,325	\$0.16	5	2	\$1,332
52	Asphalt mill & overlay - Hampton Village Pl	sf	12,420	\$1.44	18	5	\$17,885
53	Asphalt seal coat - Hampton Village Pl	sf	12,420	\$0.16	5	2	\$1,987
54	Asphalt mill & overlay - Hancock Forest Terr	sf	8,576	\$1.44	18	5	\$12,349
55	Asphalt seal coat - Hancock Forest Terr	sf	8,576	\$0.16	5	2	\$1,372
56	Asphalt mill & overlay - Merrimac pipestem	sf	3,400	\$1.44	18	17	\$4,896
57	Asphalt seal coat - Merrimac pipestem	sf	3,400	\$0.16	5	none	\$544

PAVEMENT (cont.) - Replacement Costs - Subtotal \$106,758

PAVEMENT (cont.)
 COMMENTS

Empty comment box for providing additional details or notes regarding the pavement items listed above.

POOL BUILDING EXTERIORS
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
58	Asphalt shingle roofing	sf	1,610	\$2.90	25	12	\$4,669
59	Aluminum gutter system	ft	136	\$6.50	25	12	\$884
60	Brick re-pointing (10%)	sf	104	\$12.50	50	6	\$1,300
61	Brick re-pointing (10%)	sf	104	\$12.50	50	16	\$1,300
62	Brick re-pointing (10%)	sf	104	\$12.50	50	26	\$1,300
63	Brick re-pointing (10%)	sf	104	\$12.50	50	36	\$1,300
64	Brick re-pointing (10%)	sf	104	\$12.50	50	46	\$1,300
65	Windows, metal frame	sf	36	\$40.00	30	12	\$1,440
66	Metal/glass entrance doors	ea	2	\$1,750.00	25	12	\$3,500
67	Exterior metal doors	leaf	4	\$625.00	25	1	\$2,500

POOL BUILDING EXTERIORS - Replacement Costs - Subtotal \$19,493

POOL BUILDING EXTERIORS
COMMENTS

POOL BUILDING INTERIORS

PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
68	Privacy partitions	ea	8	\$625.00	20	4	\$5,000
69	Counter with sink	ft	12	\$300.00	30	4	\$3,600
70	Commodes	ea	4	\$975.00	30	11	\$3,900
71	Urinals	ea	2	\$950.00	30	11	\$1,900
72	Interior metal doors	ea	4	\$625.00	30	4	\$2,500
73	Guard's millwork	ft	14	\$175.00	20	4	\$2,450
74	Commercial water heater, 84 gal	ea	1	\$3,800.00	20	11	\$3,800
75	Supply piping	ls	1	\$4,500.00	45	11	\$4,500

POOL BUILDING INTERIORS - Replacement Costs - Subtotal \$27,650

POOL BUILDING INTERIORS

COMMENTS

Empty area for 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 (\$)
76	Swimming pool, structure	sf	5,045	\$65.00	60	27	\$327,925
77	Swimming pool, whitecoat	sf	5,045	\$3.50	8	3	\$17,658
78	Swimming pool, waterline tile	ft	308	\$17.00	16	11	\$5,236
79	Swimming pool, coping	ft	308	\$50.00	24	11	\$15,400
80	Swimming pool, life guard stands	ea	2	\$3,200.00	25	10	\$6,400
81	Swimming pool, diving board stand	ea	1	\$2,500.00	25	10	\$2,500
82	Swimming pool, rails	pr	7	\$1,600.00	25	10	\$11,200
83	Baby pool, structure	sf	285	\$65.00	60	27	\$18,525
84	Baby pool, whitecoat	sf	285	\$3.50	8	3	\$998
85	Baby pool, waterline tile	ft	61	\$17.00	16	11	\$1,037
86	Baby pool, coping	ft	61	\$50.00	24	11	\$3,050
87	Swimming pool pump, 7.5 hp, main pool	ea	1	\$4,825.00	15	8	\$4,825
88	Swimming pool skimmers, main pool	ea	1	\$17,500.00	20	5	\$17,500
89	Swimming pool skimmers, baby pool	ea	1	\$3,450.00	20	5	\$3,450
90	Swimming pool filter, main pool	ea	1	\$4,500.00	20	2	\$4,500
91	Swimming pool filter, baby pool	ea	1	\$1,600.00	20	8	\$1,600

SWIMMING POOL - Replacement Costs - Subtotal \$441,803

SWIMMING POOL
COMMENTS

SWIMMING POOL FURNITURE

PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
92	Pool furniture, repair/replace (10%)	ls	1	\$1,950.00	10	none	\$1,950
93	Pool furniture, repair/replace (10%)	ls	1	\$1,950.00	10	1	\$1,950
94	Pool furniture, repair/replace (10%)	ls	1	\$1,950.00	10	2	\$1,950
95	Pool furniture, repair/replace (10%)	ls	1	\$1,950.00	10	3	\$1,950
96	Pool furniture, repair/replace (10%)	ls	1	\$1,950.00	10	4	\$1,950
97	Pool furniture, repair/replace (10%)	ls	1	\$1,950.00	10	5	\$1,950
98	Pool furniture, repair/replace (10%)	ls	1	\$1,950.00	10	6	\$1,950
99	Pool furniture, repair/replace (10%)	ls	1	\$1,950.00	10	7	\$1,950
100	Pool furniture, repair/replace (10%)	ls	1	\$1,950.00	10	8	\$1,950
101	Pool furniture, repair/replace (10%)	ls	1	\$1,950.00	10	9	\$1,950

SWIMMING POOL FURNITURE - Replacement Costs - Subtotal \$19,500

SWIMMING POOL FURNITURE

COMMENTS

Empty comment box for additional notes.

TOT LOT and COURTS
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
102	Tot lot - MP structure	ea	1	\$25,000.00	20	16	\$25,000
103	Tot lot - swings	ea	1	\$3,500.00	20	16	\$3,500
104	Tot lot - synthetic border	ft	220	\$15.00	20	16	\$3,300
105	Tot lot - perimeter chain link fence, vinyl	ft	220	\$19.00	30	26	\$4,180
106	Basketball court - base asphalt	sf	3,150	\$2.90	20	6	\$9,135
107	Basketball pole & backstop	ea	2	\$1,200.00	20	6	\$2,400
108	Volleyball court - base asphalt	sf	3,150	\$2.90	20	none	\$9,135
109	Volleyball poles	pr	1	\$1,350.00	20	none	\$1,350

TOT LOT and COURTS - Replacement Costs - Subtotal \$58,000

TOT LOT and COURTS
COMMENTS

- ' Tot lots and tot lot equipment should be evaluated annually by a playground safety specialist for compliance with the Consumer Product Safety Commission, Handbook for Public Playground Safety. Defects should be corrected immediately to protect the users of the facilities from potential injury and the Association from potential liability for those injuries.

VALUATION EXCLUSIONS

EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
	Entrance signage re-pointing	ls	1				EXCLUDED
	Basketball goals	ls	1				EXCLUDED
	Miscellaneous signage	ls	1				EXCLUDED
	Pet waste disposal stations	ls	1				EXCLUDED
	Minor wood landscape retaining walls	ls	1				EXCLUDED
	Bench	ls	1				EXCLUDED
	Picnic table	ls	1				EXCLUDED
	BBQ	ls	1				EXCLUDED
	Drinking water fountain	ls	1				EXCLUDED
	Baby pool pump	ls	1				EXCLUDED
	Hose bib	ls	1				EXCLUDED
	Building mounted lights	ls	1				EXCLUDED
	Screen vents	ls	1				EXCLUDED
	Fire extinguisher cabinet	ls	1				EXCLUDED
	Fire alarm devices	ls	1				EXCLUDED
	Emergency lighting, exit light, etc.	ls	1				EXCLUDED
	Interior signage	ls	1				EXCLUDED
	Refrigerator	ls	1				EXCLUDED
	Wood benches, shower rooms	ls	1				EXCLUDED
	Electric space heaters	ls	1				EXCLUDED

VALUATION EXCLUSIONS

COMMENTS

' Valuation Exclusions. For ease of administration of the Replacement Reserves and to reflect accurately how Replacement Reserves are administered, items with a dollar value less than \$1,000.00 have not been scheduled for funding from Replacement Reserves. 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.

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 (\$)
	Entrance signage, masonry	ls	1				EXCLUDED
	Miscellaneous culverts	ls	1				EXCLUDED
	Exterior brick veneer	ls	1				EXCLUDED
	Building foundation(s)	ls	1				EXCLUDED
	Concrete floor slabs (interior)	ls	1				EXCLUDED
	Wall, floor, & roof structure	ls	1				EXCLUDED
	Fire protection/security systems	ls	1				EXCLUDED
	Common element electrical services	ls	1				EXCLUDED
	Electrical wiring	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
	Lead walk on an individual lot	ls	1				EXCLUDED
	Stairs on an individual lot	ls	1				EXCLUDED
	Fence on an individually lot	ls	1				EXCLUDED
	Unit exterior	ls	1				EXCLUDED
	Unit interior	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
	Stormwater management system	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.

GOVERNMENT EXCLUSIONS

EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
	Government, roadways & parking	ls	1				EXCLUDED
	Government, sidewalks & curbs	ls	1				EXCLUDED
	Government, lighting	ls	1				EXCLUDED
	Government, stormwater mgmt.	ls	1				EXCLUDED
	Government, mailboxes	ls	1				EXCLUDED

GOVERNMENT EXCLUSIONS

COMMENTS

- ' Government Exclusions. We have assumed that some of the improvements installed on property owned by the Association will be maintained by the state, county, or local government, or other association or other responsible entity. Examples of items excluded from funding by Replacement Reserves by this standard are listed above.

- ' Government-owned streets include Lafayette Village Drive and Trammell Road. All lighting (except those within the pool boundary) is not owned by the Association and is excluded from the study.

- ' 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 109 Projected Replacements in the Lafayette Village Community Ass 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 POLICES, 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.
- ' 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 Lafayette Village Community Assoc Board of Directors, those responsible for the management of the items included in the Replacement Reserve Inventory, and the accounting professionals employed by the Association.

PROJECTED REPLACEMENTS - YEARS 7 TO 12

Item	2015	\$
2	Concrete sidewalk (6%)	\$17,991
37	Asphalt seal coat - Trammel	\$2,017
39	Asphalt seal coat - Colonial	\$3,464
41	Asphalt seal coat - Newport	\$3,230
43	Asphalt seal coat - Ashley G	\$4,812
45	Asphalt seal coat - Pool park	\$1,312
47	Asphalt seal coat - Byrds Ne	\$4,943
60	Brick re-pointing (10%)	\$1,742
98	Pool furniture, repair/replace	\$2,613
106	Basketball court - base asph	\$12,242
107	Basketball pole & backstop	\$3,216
Total Scheduled Replacements		\$57,583

Item	2016	\$
49	Asphalt seal coat - Peyton F	\$2,465
51	Asphalt seal coat - Brunswic	\$1,874
53	Asphalt seal coat - Hampton	\$2,796
55	Asphalt seal coat - Hancock	\$1,931
99	Pool furniture, repair/replace	\$2,744
Total Scheduled Replacements		\$11,810

Item	2017	\$
26	Wood retaining wall, Hancor	\$7,565
87	Swimming pool pump, 7.5 hp	\$7,129
91	Swimming pool filter, baby p	\$2,364
100	Pool furniture, repair/replace	\$2,881
Total Scheduled Replacements		\$19,938

Item	2018	\$
12	Concrete curb & gutter (6%)	\$40,707
101	Pool furniture, repair/replace	\$3,025
Total Scheduled Replacements		\$43,732

Item	2019	\$
23	Concrete pool deck (20%)	\$19,498
28	Carved wood sign, pool buil	\$1,833
31	Asphalt seal coat - Yorktown	\$6,413
33	Asphalt seal coat - Mount Ai	\$5,557
35	Asphalt seal coat - Butterfiel	\$8,890
57	Asphalt seal coat - Merrimac	\$886
80	Swimming pool, life guard st	\$10,425
81	Swimming pool, diving board	\$4,072
82	Swimming pool, rails	\$18,244
92	Pool furniture, repair/replace	\$3,176
Total Scheduled Replacements		\$78,993

Item	2020	\$
29	Carved wood sign, parking	\$4,780
37	Asphalt seal coat - Trammel	\$2,574
39	Asphalt seal coat - Colonial	\$4,421
41	Asphalt seal coat - Newport	\$4,123
43	Asphalt seal coat - Ashley G	\$6,141
45	Asphalt seal coat - Pool park	\$1,675
47	Asphalt seal coat - Byrds Ne	\$6,309
70	Commodes	\$6,670
71	Urinals	\$3,250
74	Commercial water heater, 8-	\$6,499
75	Supply piping	\$7,697
77	Swimming pool, whitecoat	\$30,200
78	Swimming pool, waterline til	\$8,955
79	Swimming pool, coping	\$26,339
84	Baby pool, whitecoat	\$1,706
85	Baby pool, waterline tile	\$1,774
86	Baby pool, coping	\$5,217
93	Pool furniture, repair/replace	\$3,335
Total Scheduled Replacements		\$131,666

PROJECTED REPLACEMENTS - YEARS 13 TO 18

2021			2022			2023		
Item		\$	Item		\$	Item		\$
3	Concrete sidewalk (6%)	\$24,109	95	Pool furniture, repair/replace	\$3,677	96	Pool furniture, repair/replace	\$3,861
49	Asphalt seal coat - Peyton F	\$3,146						
51	Asphalt seal coat - Brunswic	\$2,392						
53	Asphalt seal coat - Hampton	\$3,569						
55	Asphalt seal coat - Hancock	\$2,464						
58	Asphalt shingle roofing	\$8,385						
59	Aluminum gutter system	\$1,588						
65	Windows, metal frame	\$2,586						
66	Metal/glass entrance doors	\$6,285						
94	Pool furniture, repair/replace	\$3,502						
Total Scheduled Replacements		\$58,026	Total Scheduled Replacements		\$3,677	Total Scheduled Replacements		\$3,861
2024			2025			2026		
Item		\$	Item		\$	Item		\$
13	Concrete curb & gutter (6%)	\$54,551	27	Trash receptacles, composit	\$2,401	49	Asphalt seal coat - Peyton F	\$4,015
24	Concrete pool deck (20%)	\$24,885	37	Asphalt seal coat - Trammel	\$3,285	51	Asphalt seal coat - Brunswic	\$3,053
31	Asphalt seal coat - Yorktowr	\$8,184	39	Asphalt seal coat - Colonial	\$5,643	53	Asphalt seal coat - Hampton	\$4,555
33	Asphalt seal coat - Mount Ai	\$7,093	41	Asphalt seal coat - Newport	\$5,262	55	Asphalt seal coat - Hancock	\$3,145
35	Asphalt seal coat - Butterfiel	\$11,346	43	Asphalt seal coat - Ashley G	\$7,838	56	Asphalt mill & overlay - Merr	\$11,222
57	Asphalt seal coat - Merrimac	\$1,131	45	Asphalt seal coat - Pool parl	\$2,137	99	Pool furniture, repair/replace	\$4,469
97	Pool furniture, repair/replace	\$4,054	47	Asphalt seal coat - Byrds Ne	\$8,052			
			61	Brick re-pointing (10%)	\$2,838			
			98	Pool furniture, repair/replace	\$4,257			
			102	Tot lot - MP structure	\$54,572			
			103	Tot lot - swings	\$7,640			
			104	Tot lot - synthetic border	\$7,203			
Total Scheduled Replacements		\$111,244	Total Scheduled Replacements		\$111,129	Total Scheduled Replacements		\$30,459

CONDITION ASSESSMENT

General Comments. Miller - Dodson Associates conducted a Reserve Study at Lafayette Village Community Association in May 2008. Lafayette Village is in average to good condition for a condominium community constructed in 1975. A review of the Replacement Reserve Inventory will show that we are anticipating most of the components achieving their normal economic lives.

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

SITE IMPROVEMENTS

Concrete Sidewalks and Curbs/Gutters. The curb/gutter assemblies are generally in good condition, with only a few noted chipped or heaved sections and those do not pose a tripping hazard at this time. Many of the concrete sidewalk sections have settled, cracked or spalled and should be replaced immediately.

We have scheduled the first cycle of concrete sidewalks for 2009 to address the worst sections. The curb and gutter replacement can be deferred until 2012 or later.



Cracked sidewalk section; typical



Heaved and cracked sidewalk section; typical



Cracked and settled section; typical



Heaved sidewalk section; typical



Heaved sidewalk section; typical



Chipped curb section; not typical



Heaved curb section; not typical

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

Asphalt Pavement. The Association owns and maintains the asphalt roads and parking areas serving the town homes, and the pipestem asphalt at the end of Merrimac Trail. The Government owns and maintains the main roadways throughout the community (Lafayette Village Drive, Trammell Road and Merrimac Trail). The Association-owned asphalt is being crack filled, patched and seal coated periodically, which generally improves its total useful life.

The asphalt appears to be in similar condition throughout the community, with slight variations in the general condition. Several roads that have a steeper slope, sharp turns, or heavier use will likely be among the first of the asphalt to be milled and overlaid. Many of these roads and parking areas have been previously patched, and cold joints at the patch edges are opening. All roads have been crack filled, but some previously filled cracks are opening up and new cracks have developed. The unit price for overlay includes full depth repairs to 10% of the surface area, and edge milling along all curbs.

The following roads and parking areas will likely be the first phase. This group should be scheduled to be resurfaced in 2012.

- Yorktown Village Pass
- Butterfield Lane/Mount Airey Lane



Yorktown Village Pass; note prior patch



Yorktown Village Pass; note filled cracks and new cracks



Yorktown Village Pass; note prior patch and extensive surface cracking



Butterfield Lane/Mount Airey Lane; note extensive surface cracking at parking spaces



Butterfield Lane/Mount Airey Lane; note prior patches

The following roads and parking areas are in slightly better condition than the asphalt above and will likely constitute the second phase. This group should be scheduled to be resurfaced in 2013.

- Trammell Court
- Colonial Village Pass
- Newport Glen Pass

- Ashley Glen Road
- Pool parking
- Byrd Nest Pass



Trammell Court asphalt



Colonial Village Row asphalt



Newport Glen Pass asphalt



Ashley Glen Road asphalt



Pool parking lot asphalt



Byrd Nest Pass asphalt

The following roads and parking areas are in the best condition overall and will likely be the third and final phase. This group should be scheduled to be resurfaced in 2014.

- Peyton Forest Trail
- Brunswick Forest Pass
- Hampton Village Place

- Hancock Forest Terrace



Peyton Forest Trail asphalt



Brunswick Forest Pass asphalt



Hampton Village Place asphalt



Hancock Forest Terrace asphalt

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

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

Entrance Signs. Masonry entrance signs are located at both ends of the community along Lafayette Village Drive. The masonry is long life. Periodic re-pointing of the mortar and cleaning of the concrete should be performed using operating budget funds.



Entrance sign; typical of two

Wood Parking Signage. Each parking area entrance off Lafayette Village Drive has a sign with carved wood planks and wood posts. The wood is in varying conditions, but generally is aging and many of the signs may need to be replaced in the next several years.



Wood signage; typical condition



Wood signage; typical condition

Trash Receptacles. Trash receptacles are located in several locations along Lafayette Village Drive. The receptacles have a metal frame with composite planks and are in very good condition. We have programmed funds to replace the four receptacles after 20 years of service. Wood benches, picnic tables and barbecue grills are minor items, to be funded from the operating budget.



Trash receptacle; typical of four

Wood Retaining Wall. A wood retaining wall is located along Hancock Forest Terrace. The wood is in fair to good condition, but several boards are shifting away from the wall structure as a result of soil pressure behind the wall. Wood retaining walls have a 15- to 25-year expected life. Interim repairs to the wall are considered maintenance and should be funded from the operating budget.



Wood retaining wall, Hancock Forest Terrace

Wood Steps. Wood steps have been built between Yorktown Village Pass and Trammell Road. The wood is in very good condition and was installed in 2007/2008. Wood steps have an average life expectancy of 20 years. Interim repairs to the steps are considered maintenance and should be funded from the operating budget.



Wood steps, Yorktown Village Pass

RECREATIONAL FACILITIES

Swimming Pools. The main swimming pool consists of two connected rectangular shapes without divider between. The baby pool is a rectangular shape. The pool area is enclosed by a six-foot high chain-link fence, with a three-foot high chain-link fence surrounding the baby pool. Pool shells normally have a finite life of approximately 45 to 60 years. At that point in time it may not be necessary to replace the entire structure. However, it is prudent to anticipate a major expenditure for replacement of underground lines and sections of the pool. Based on our research, we have found it to be prudent to budget \$65 per square foot for pool structure replacement. The pool white-coat surface is in good condition, though rust stains were visible near railing posts and occasionally at the pitted surface. The surface of the steps is cracking, but this occurs frequently and does not indicate premature failure of the remainder of the white-coated surface. The waterline tile and coping stones appear to be in good condition. All gaps between coping stones and adjacent concrete should be caulked, and the green algae growth on the tile and surface should be cleaned as part of normal maintenance.



Main pool



Main pool



Main pool tile and coping; note green growth



Main pool white coat



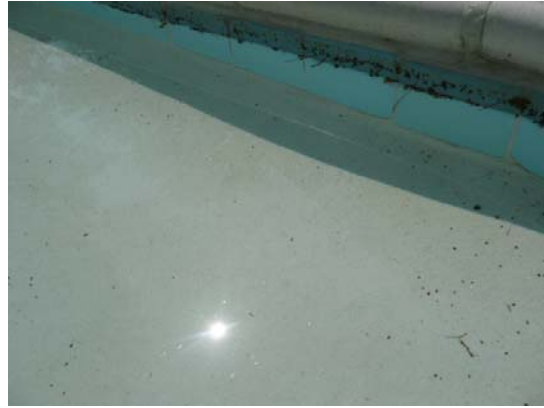
Main pool surface; note rust at rail



Baby pool



Baby pool coping; note gap



Baby pool tile and surface

Swimming Pool Equipment. Each pool has a high-rate sand filter system with single container to filter the pool water. The main pool filter is aging and is corroding on the outside of the container. This filter system may need to be replaced in the next several years. The baby pool filter is a smaller unit and is in better condition. The pool pumps are 7.5-hp (main pool) and 3/4-hp (baby pool). Both motors were functioning normally at the time of the inspection on May 29, 2008. We have budgeted to replace the main pool motor at the end of its 15-year life. The baby pool pump is a minor item, to be funded from the operating budget.



Main pool filter system; note corrosion on tank



Baby pool filter and pump

Life Guard Stands and Rails. There are two life guard stands and one diving board. The stand and board structures are in good condition. The seven sets of railings are in good condition and are generally sturdy.

Pool Furniture. The pool furniture is primarily metal frame with vinyl straps. The furniture is in good condition. The inventory includes 42 lounges, 20 chairs, five tables, and seven umbrellas. We have budgeted \$1,950 for annual repairs (restrapping) and replacement, which represents 10% of the furniture value.

Chain Link Fence. The 3' and 6' chain link fences are aging, but the frames are securely mounted to the ground and the fences are performing as designed. The mesh is vinyl coated and in good condition. The fence should remain serviceable for five to 10 years.



Pool furniture



6' chain link fence, vinyl coated



3' chain link fence, vinyl coated

Concrete Pool Deck. The swimming pools are surrounded by a cast-in-place concrete walking surface. Cracking will develop as the soils beneath shift and move. Some crack repair can be accomplished by filling the cracks with epoxy as part of routine maintenance. The concrete pool deck sections are generally in fair condition. There are a number of cracked sections, and the Association should budget to replace up to 20% of the total concrete pool deck in 2009, and every five years thereafter until the deck has been replaced in full. Replacement of the entire pool deck at one time should not be required.



Cracked pool deck; typical condition



Cracked pool deck; typical condition



Cracked pool deck; typical condition



Cracked and settled concrete at diving board stand

Light Fixtures. Five metal poles with plastic light fixtures provide illumination along the perimeter of the pool deck. The poles are in good condition. Our inspection took place during daylight hours and operation of the lights could not be verified. The poles are scheduled for replacement after 25 years of service. Wiring repairs and interim fixture replacements should be funded from the operating budget.



Light pole; typical

Pool Building Exteriors. The pool building structure should last as long as the community. Exterior coverings have a limited life and will need to be re-pointed or replaced during the study period. Siding material is primarily brick veneer. The roof is fiberglass-impregnated asphalt shingle roofing. A minimal amount of wood trim is located at the building, and the trim has been wrapped. There is no indication of water penetrating the building envelope, either through the brick exterior, window and door penetrations, or roofing system. The roof shingles are generally lying flat and appear to be in good condition. The exterior metal doors are rusting and should be replaced in the next several years. All other doors and windows are in good condition and should remain serviceable for five years or longer. The brick veneer is a long-life item, but periodic re-pointing will be required as mortar fails. We have programmed funds to re-point 10 percent of the brick veneer every 10 years to reflect the incremental nature of this work.



Pool building; front elevation



Pool building; rear elevation



Pool building; side elevation



Pool building roof

Pool Building Interiors. The pool building interiors include a men's and women's shower facility and an open area for the guards. The floors are unpainted, unsealed concrete. Walls are painted block. The ceiling is open to the roof structure above. The open area for guards includes 14 ft of millwork with hinged counter. The women's room contains two commodes, metal privacy partitions, counter with two sinks, and two single showers. The men's room contains two commodes, two urinals, metal privacy partitions, counter with two sinks, and an open shower area for multiple users. Supply piping is copper and is exposed. Hot water is supplied by a natural gas-fueled A.O. Smith commercial water heater with 84-gallon capacity. There are four interior metal doors. The privacy partitions are beginning to rust and the interior doors are aging, but the rest of the fixtures are in good condition.



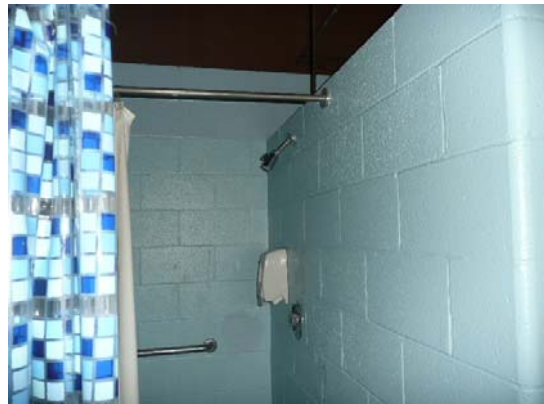
Open area with millwork for guards



Water heater



Women's room



Women's shower; typical



Men's room



Men's shower

Pool Building Signage. A carved wood sign is located at the pool building. The sign is double-faced and appears to be near the middle of its expected useful life.



Carved wood sign; pool building

Basketball and Volleyball/Multipurpose Court. There are two asphalt courts located near the swimming pool. One of the courts is used for basketball, and the other appears to be set up for volleyball, without the net. The basketball court is in good condition, with no visible base failures except for an open crack along the center of the court. This crack should be filled as part of normal maintenance, and the court surface should remain serviceable for six to eight more years. The volleyball court is failing, with multiple lateral and longitudinal cracks that are 2" wide throughout the court surface. The surface is deteriorating and the court is due for an immediate resurfacing.



Basketball court



Basketball court; crack along mid-court



Volleyball court; extensive surface cracking



Volleyball court; extensive surface cracking and depressions

Tot Lot. There is a tot lot area located along Trammell Court. The tot lot contains a composite play structure and metal swing set. The mulched area is bordered with a composite border and 3.5' high chain link fence with vinyl coated mesh. The tot lot was relocated to the present location in the mid-2000's and new equipment was installed. The play structures are in good condition. Composite play structures have a 20-year life and may last longer with proper maintenance. Metal equipment generally lasts 20 to 25 years. All components are in typical condition for their age.



Tot lot

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

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 home owner is bound to a Community Association that owns, maintains, and is responsible for periodic replacements of various components that may include the roads, curbs, sidewalks, playgrounds, street lights, recreational facilities, and other community facilities and infrastructure.

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

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

2. REPLACEMENT RESERVE STUDY

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

- Replacement Reserve Study Introduction. The introduction provides a description of the property, reviews the intent of the Replacement Reserve Study, and lists documents and site evaluations upon which the Replacement Reserve Study is based.
- Section A Replacement Reserve Analysis. Many components owned by the Association have a limited life and require periodic replacement. Therefore it is essential the Association have a financial plan that provides funding for the timely replacement of these components in order to protect the safety, appearance, and value of the community. In conformance with American Institute of Certified Public Accountant guidelines, Section A Replacement Reserve Analysis evaluates the current funding of Replacement Reserves as reported by the Association and recommends annual funding of Replacement Reserves by two generally accepted accounting methods; the Cash Flow Method and the Component Method. Section A Replacement Reserve Analysis includes graphic and tabular presentations of these methods and current Association funding.
- Section B Replacement Reserve Inventory. The Replacement Reserve Inventory lists the commonly-owned components within the community that require periodic replacement using funding from Replacement Reserves. The Replacement Reserve Inventory also provides information about components excluded from the Replacement Reserve Inventory whose replacement is not scheduled for funding from Replacement Reserves.

Replacement Reserve Inventory includes estimates of the normal economic life and the remaining economic life for those components whose replacement is scheduled for funding from Replacement Reserves.
- Section C Projected Annual Replacements. The Calendar of Projected Annual Replacements provides a year-by-year listing of the Projected Replacements based on the data in the Replacement Reserve Inventory.
- Section D Condition Assessment. Several of the items listed in the Replacement Reserve Inventory are discussed in more detail. The Condition Assessment includes a narrative and photographs that document conditions at the property observed during our visual evaluation.
- Section E Attachments. The Appendix is provided as an attachment to the Replacement Reserve Study. Additional attachments may include supplemental photographs to document conditions at the property and additional information specific to the property cited in the Conditions Assessment (i.e. Consumer Product Safety Commission, Handbook for Public Playground Safety, information on segmental retaining walls, manufacturer recommendations for asphalt shingles or siding, etc).

3. METHODS OF ANALYSIS

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

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

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

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

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

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

4. REPLACEMENT RESERVE STUDY DATA

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

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

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

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

5. DEFINITIONS

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

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

Cash Flow Analysis. See Cash Flow Method, above.

Component Analysis. See Component Method, above.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

6. LIST OF RECOMMENDED REPAIRS - PROCEDURES

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

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