

# Sample "Do-It-Yourself" Reserve Study

# Sample Association Anywhere, USA

Report #: 9999-0 DIY

For Period Beginning: January 1, 2014

Ending: December 31, 2014

Date Prepared: October 22, 2013

## Hello, and welcome to your Reserve Study!

This Report is a valuable budget planning tool, for with it you control the future of your association. It contains all the fundamental information needed to understand your current and future Reserve obligations, the most significant expenditures your association will face.

ith Respect to Reserves, this Report will tell you "where you are", and "where to go from here".

In this Report, you will find...

- 1) A List of What you are Reserving For
- 2) An Evaluation of your Reserve Fund Size and Strength
- 3) A Recommended Multi-Year Reserve Funding Plan

#### **More Questions?**

Visit our website at www.DIYReserveStudy.com or call us at:

800/733-1365



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## **Executive Summary**

Association: Sample Association Assoc. #: 9999-0 DIY

Location: Anywhere, USA

# of Units: 167

Report Period: January 1, 2014 through December 31, 2014

#### Results

Projected Starting Reserve Balance:	\$245,987
Fully Funded Reserve Balance:	\$550,604
Reserve Deficit (Surplus) Per Unit:	\$1,824
Percent Funded:	44.7%
Recommended 2014 Monthly Reserve Contribution:	\$9,670
Recommended Special Assessment this year:	\$0
Most Recent Reserve Contribution Rate:	\$3,700
Economic Assumptions:	
Net Annual "After Tax" Interest Earnings Accruing to Reserves	31.00%
Annual Inflation Rate	3.00%

- This Reserve Study is based on the information provided to our firm, shown in the attached appendix, without oversight or review by Association Reserves, Inc. personnel.
- Because your Reserve Fund is 44.7% Funded (the ratio of actual Reserve cash to the calculated *deteriorated fraction* of your Reserve assets), this represents a mid-range position. In comparison, associations funded above the 70% point enjoy a lower risk of special assessments and other cash flow problems.
- Based on this starting point, your anticipated future expenses, and your historical Reserve contribution rate, our recommendation is to increase your Reserve contributions in 2009.
- Your multi-year Funding Plan is designed to gradually bring you to the 100% level, or "Fully Funded".

		Useful	Rem.		
		Life	Useful	Current	Future
#	Component	(yrs)	Life (yrs)	Cost	Cost
1	Outdoor Walkway - Resurface	4	0	\$15,500	\$17,445
2	Wood Deck - Resurface/Reseal	15	1	\$1,250	\$1,288
3	Generator - Repair	25	8	\$12,000	\$15,201
4	Garage Exhaust Fan - Replace	12	0	\$9,600	\$13,687
5	Hallway Vent Fans - Replace	15	14	\$4,000	\$6,050
6	Mailboxes - Replace	20	3	\$10,500	\$11,474
7	Wood Fence - Replace	20	6	\$21,200	\$25,314
8	Hallway Carpet - Replace	8	7	\$87,000	\$106,999
9	Stairwell Carpet - Replace	16	15	\$8,100	\$12,620
10	Intercom - Replace	12	6	\$4,500	\$5,373
11	Vehicle Gate Mech Repair	3	2	\$1,000	\$1,061
12	Boilers - Annual Repairs	1	0	\$3,500	\$3,605
13	Hallways - Refurbish	16	15	\$210,000	\$327,173
14	Library - Remodel	16	0	\$7,600	\$12,196
15	Lobby - Refurbish	8	1	\$5,000	\$5,150
16	Rec Room - Remodel	16	0	\$8,000	\$12,838
17	Restroom - Remodel	16	4	\$15,000	\$16,883
18	Washer/Dryer - Replace	8	3	\$3,600	\$3,934
19	Iron Fence/Rail - Repaint	4	0	\$6,200	\$6,978
20	Wood Fence - Stain/Seal	5	0	\$2,600	\$3,014
21	Stairwell Walls - Repaint	16	15	\$8,500	\$13,243
22	Stucco - Repaint	10	0	\$126,000	\$169,333
23	Parking Spaces - Restripe	10	0	\$3,500	\$4,704
24	Flat Roof - Replace	15	12	\$343,750	\$490,105
25	Spa - Resurface	10	0	\$4,000	\$5,376
26	Spa Filter - Replace	15	13	\$1,000	\$1,469
27	Spa Heater - Replace	10	0	\$2,700	\$3,629
28	Elevator - Modernize	20	4	\$225,000	\$253,239
29	Elevator Cab - Remodel	15	4	\$32,000	\$36,016
30	Fire Alarm System - Replace	10	0	\$7,200	\$9,676
31	Plumbing - Annual Repairs	1	0	\$3,000	\$3,090

31 Total Funded Components

Note1: A Useful Life of "N/A" means a one-time expense, not expected to repeat Note2: Highlighted line items are expected to require attention in the initial year

#### Introduction

It is all very simple, really. A Reserve Study is the art and science of anticipating and preparing for major common area repair and replacement expenses. Partially art, because in this field we are making projections about the future. Partially science, because our work

is a process of research and analysis along well

defined methodologies.

A Reserve Study consists of two parts: the Physical Analysis and the Financial Analysis. The Physical Analysis contains the information about the current condition and repair or replacement cost of the major common area components the association is obligated to maintain. In this Do-It-Yourself Reserve Study Kit, the Physical Analysis information has been assembled by the client. The Financial Analysis contains an evaluation of the association's Reserve

**Reserve Study** 

- Physical Analysis
- Financial Analysis

balance (measured by Percent Funded) and a recommended Funding Plan to offset the anticipated Reserve expenses.

The primary responsibility of the Board of Directors is to maintain, protect, and enhance the assets of the association. As the physical assets age and deteriorate, it is important to accumulate financial assets, keeping the two "in balance". The Reserve Study is the document that helps keep the physical and financial assets of the association in balance. This Reserve Study is a budget-planning document. The primary information you will get from this document is a list of your major Reserve components, a finding of the current status (strength) of your Reserve Fund, and a recommended Funding Plan. The basic objective of the Reserve Study is to provide a plan to collect funds at a stable rate to offset the predicted irregular Reserve expenses. Setting a stable Reserve contribution rate will ensure that each owner pays their own "fair share" of the ongoing, gradual deterioration of the common areas.

## Methodology

Association Reserves and the Board of Directors share a common goal: to point your association responsibly in the direction of proper Reserve planning. In this Do-It-Yourself Kit, the client has elected Reserve balance, and the interest rate earned on your Reserve funds. The Reserve Component List you provided is shown in Table 1 and Table 2. With this information and an assumed inflation rate (as shown on the Executive Summary), we are able to project the array of future major expenses facing the association.

## **Reserve Study Types**

- Full
- Update With-Site-Visit
- Update No-Site-Visit
- → · Do-It-Yourself Kit

#### Which Physical Assets are Covered by Reserves?

Reserve expenses are the larger, infrequent expenses that require significant advance planning. Operating expenses, on the other hand, are those ongoing daily, weekly, or monthly expenses that occur and recur throughout the year. Small surprises are typically handled as maintenance contingencies, while the larger ones may be covered by insurance or require special assessments.

There is a national-standard four-part test to determine which expense items should be funded through Reserves. This four-part test was provided to the client in the workbook used to help compile the Reserve Component List. First, it must be a common area maintenance responsibility. Second, the component must have a limited life. Third, the limited life must be predictable (not a "surprise" which cannot be accurately anticipated). Fourth, the component must be above a minimum threshold cost. This limits Reserve Components to major, predictable expenses.

## **Reserve Components**

- · Common Area
- Limited Useful Life
- Predictable Life Limit
- Cost must be Significant

Most Reserve Studies do not typically Reserve for building foundations and major infrastructure elements since they do not have limited life expectancies. Light bulbs or other small items are usually not listed as Reserve Components since their individual costs are insignificant. Finally, it is usually inappropriate to include unpredictable expenses such as damage due to fire, flood, or earthquake since these typically cannot be considered "reasonably predictable".

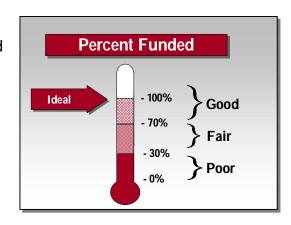
#### The Financial Analysis

We have used the Reserve Component List provided by the client to compute the association's current Percent Funded and an appropriate Reserve Contribution rate. These two pieces of information are considered the Financial Analysis.

#### So... How much Reserves are enough? Computing your Percent Funded.

Your Reserve cash Balance can measure reserves, but the true measure is whether the funds are adequate for the needs of the association. Reserve Fund size is therefore measured by Percent Funded. Percent Funded is the actual (or projected) Reserve Balance, divided by the association's calculated Fully Funded Balance (FFB), expressed as a percentage. The Fully Funded Balance is the sum of the value of the deterioration fraction of each individual Reserve components, not the total replacement value of those components. The Fully Funded Balance for each individual component is shown in Table 3. of <u>all</u> the Reserve Components. To show how this works with one component, in the case of a \$10,000 component with a 10 year Useful Life, in the third year the Fully Funded Balance is three tenths of \$10,000, or \$3,000. The FFB grows as assets age, but shrinks as components are replaced. Deteriorated associations have a higher FFB than association with assets in good condition. The Fully Funded Balance changes each year, and is a predictable, but moving target.

Special assessments and deferred maintenance are common when the Percent Funded is weak (below 30%). While the 100% point is Ideal, a Reserve Fund above the 70% level should be considered "strong" because cash flow problems are rare. Measuring your Reserves by Percent Funded tells how well prepared your association is for upcoming Reserve expenses. An association with a strong Reserve Fund should experience smooth sailing financially, while an association with a weak Reserve Fund should expect cash flow problems. New buyers should be very aware of this important disclosure!



#### How much should we contribute?

There are four Funding Principles that we balance in developing your Reserve Funding Plan. First and foremost, our objective is to design a plan that provides you with sufficient cash to perform your Reserve projects on time. A stable contribution rate is desirable because it indicates the association is being run on a stable financial platform, not being driven by the winds of change from year to year. For fairness, it is important to evenly distribute the contributions over the years so each owner pays their fair share of the deterioration in direct proportion to the amount of time they are owners. And finally, any

## **Funding Principles**

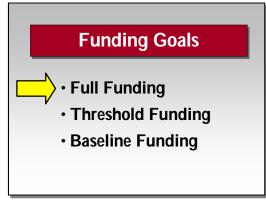
- Sufficient Cash
- Stable Contribution Rate
- Evenly Distributed
- Fiscally Responsible

Funding Plan must be based on fiscally responsible principles. Your Funding Plan was created by a process where different solutions were tested until one was found that most successfully met all four of these principles and achieved your Funding Goal.

#### What is our Funding Goal?

There are different Funding Goals to strive for, ranging from conservative to risky. Establishing a goal of simply having sufficient cash for all future years is called "Baseline Funding". The drawback is that there is little or no "margin for error", and expenses that are higher than budgeted or projects that occur earlier than planned will often cause special assessments.

"Full Funding" is when the association has the goal of becoming Fully Funded (Reserve Cash equals the FFB). Such an objective means the association is following the simple and responsible principle that you "replace what you use up". Believing this to be the responsible choice, our Funding Plan will direct you to Full Funding. Members of Fully Funded associations enjoy low exposure to the risk of special assessments or deferred maintenance. Strong interest earnings will minimize their Reserve contributions. Board members enjoy peace of mind



that the association's physical and financial assets are in balance, and therefore a degree of insulation from claims of fiscal irresponsibility.

<u>"Threshold Funding"</u> option is different in that the association selects a target other than 0% or 100%. This objective may be between 0% and 100% Funded, higher than 100% Funded, or a particular Reserve cash balance. Associations choosing Threshold Funding select this option to customize their risk exposure.

## **Projected Expenses**

The figure below shows the array of the projected future expenses at your association. As with all computations in this Report, the estimates in this figure are based on the average of Best and Worst Case expense projections. As you can see, expenses are projected 30 years into the future, using the Inflation rate shown in the Executive Summary. This figure clearly shows the near term and future expenses that your association will face. Note the general scatter of expenses over the next 30 years.

## **Annual Reserve Expenses** \$800,000 \$700,000 \$600,000 \$500,000 \$400,000 \$300,000 \$200,000 \$100,000 \$0 2014 2019 2024 2029 2034 2039 2044 Years ure 1

A summary of this information is shown in Table 4, while details of the projects that make up this information are shown in Table 5. Since this is a projection about future events that may or may not take place as anticipated, we feel more certain about "near-term" projects than those many years away. While this Reserve Study is a one-year document, it is based on 30 years worth of looking forward into the future.

Fig

#### **Reserve Fund Status**

The starting point for our financial analysis is your Reserve Fund balance, projected to be \$245,987 as-of the start of your Fiscal Year on January 1, 2014. As of January, 1 2014, your Fully Funded Balance is computed to be \$550,604 (see Table 3). This figure represents the deteriorated value of your common area components. Comparing your Reserve Balance to your Fully Funded Balance indicates your Reserves are 45% Funded. As indicated earlier in the Executive Summary, this represents a fair status.

#### **Recommended Funding Plan**

Based on your current Percent Funded and your projected cash flow requirements, we are recommending Reserve contributions of \$9,670/month this Fiscal Year. This represents the first year of a 30-year Funding Plan. This same information is shown numerically in both Table 4 and Table 5

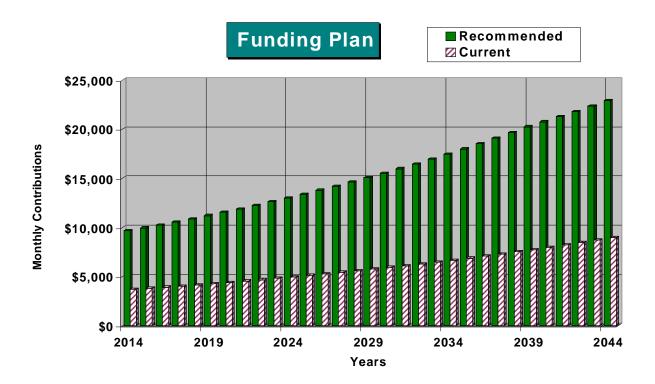
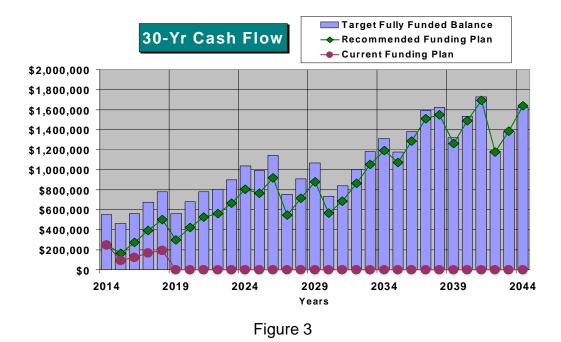
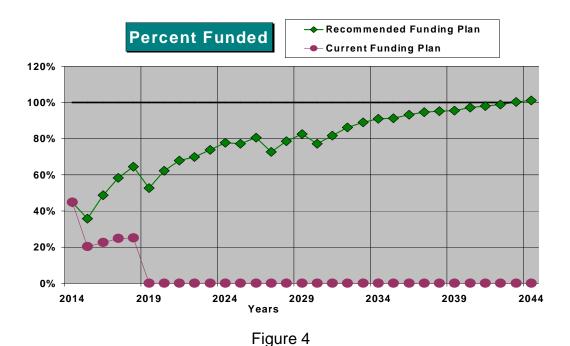


Figure 2

Your projected Reserve Balance as a result of following this Recommended multi-year Funding Plan and your Current Funding Plan is shown below, compared to your Fully Funded Balance target.



A simple comparison (a percentage comparison) of your Actual Reserve Balance to the moving Fully Funded Balance target is shown below. In this figure it is easy to see how your Reserve Fund gradually draws closer to the Fully Funded (100%) level, and is quickly depleted under your current Funding Plan.



## **Table Descriptions**

The tabular information in this Report is broken down into five tables.

<u>Table 1</u> summarizes your funded Reserve Components, and is part of the Executive Report summary that appeared earlier in this Report.

<u>Table 2</u> provides the main component description, life, and cost factors for all components determined to be appropriate for Reserve designation. This table represents the core information from which all other tables are derived.

<u>Table 3</u> is presented primarily as an accounting summary page. The results of the individual line item Fully Funded Balance computations are shown. These individual quantities are summed to arrive at the Fully Funded Balance for the association as of the start date of the Report. The figures in the Current Fund Balance column and the Monthly Reserve Contribution column show our distribution throughout the line items. If the association is underfunded, Reserve Funds are distributed first to components with a short Remaining Useful Life. If the association's Reserve Balance is above 100% Funded, funds are distributed evenly for all components. Contribution rates for each component are a proportionate distribution of the total contribution on the basis of the component's significance to the association (current cost divided by useful life). This presentation is not meant to cause clients to redistribute association funds, it simply presents one way to evenly distribute the total among all the different line items.

<u>Table 4</u>: This table provides a one-page 30-year summary of the cash flowing into and out of the association, compared to the Fully Funded Balance for each year.

<u>Table 5</u>: This table shows the cash flow detail for the next 30 years. This table makes it possible to see what components are projected to require repair or replacement each year, and the size of those individual expenses.

#	Component	Quantity	Useful Life	Rem. Useful Life	Current Cost
1	Outdoor Walkway - Resurface	Approx 2500 Sq Ft	4	0	\$15,500
2	Wood Deck - Resurface/Reseal	Approx 125 Sq Ft	15	1	\$1,250
3	Generator - Repair	(1) Onan 45 kilowatt	25	8	\$12,000
4	Garage Exhaust Fan - Replace	(8) Units	12	0	\$9,600
5	Hallway Vent Fans - Replace	(4) Rooftop blowers	15	14	\$4,000
6	Mailboxes - Replace	(174) Aluminum boxes	20	3	\$10,500
7	Wood Fence - Replace	Approx 530 Linear Feet	20	6	\$21,200
8	Hallway Carpet - Replace	Approx 2900 Sq Yds	8	7	\$87,000
9	Stairwell Carpet - Replace	Approx 270 Sq Yds	16	15	\$8,100
10	Intercom - Replace	(1) Sentex unit w/card	12	6	\$4,500
11	Vehicle Gate Mech Repair	(2) Slider Units	3	2	\$1,000
12	Boilers - Annual Repairs	(8) Teledyne 750000 BTU	1	0	\$3,500
13	Hallways - Refurbish	Approx 73000 Sq Ft	16	15	\$210,000
14	Library - Remodel	(1) 23x32 Ft room	16	0	\$7,600
15	Lobby - Refurbish	(1) Lobby	8	1	\$5,000
16	Rec Room - Remodel	(1) 36x25 room	16	0	\$8,000
17	Restroom - Remodel	(5) Restrooms	16	4	\$15,000
18	Washer/Dryer - Replace	(8) Maytag-washer & dryer	8	3	\$3,600
19	Iron Fence/Rail - Repaint	Approx 850 LF	4	0	\$6,200
20	Wood Fence - Stain/Seal	Approx 2400 Sq Ft	5	0	\$2,600
21	Stairwell Walls - Repaint	Approx 8500 Sq Ft	16	15	\$8,500
22	Stucco - Repaint	Approx 105000 Sq Ft	10	0	\$126,000
23	Parking Spaces - Restripe	(296) Spaces	10	0	\$3,500
24	Flat Roof - Replace	Approx 55000 Sq Ft	15	12	\$343,750
25	Spa - Resurface	(1) 10 Ft diameter	10	0	\$4,000
26	Spa Filter - Replace	(1) Purex 48 Sq Ft	15	13	\$1,000
27	Spa Heater - Replace	(1) Raypak 333000 BTU	10	0	\$2,700
28	Elevator - Modernize	(4) Otis - 6 stop	20	4	\$225,000
29	Elevator Cab - Remodel	(4) 4x7 Cabs	15	4	\$32,000
30	Fire Alarm System - Replace	(1) Miratone #79030/50	10	0	\$7,200
31	Plumbing - Annual Repairs	Extensive piping	1	0	\$3,000

<sup>31</sup> Total Funded Components

# **Table 3: Contribution and Fund Breakdown**

			Rem.		Fully	Current	
		Useful	Useful	Current	Funded	Fund	Reserve
#	Component	Life	Life	(Avg) Cost	Balance	Balance	Contributions
1	Outdoor Walkway - Resurface	4	0	\$15,500	\$15,500	\$15,500.00	\$394.02
2	Wood Deck - Resurface/Reseal	15	1	\$1,250	\$1,167	\$1,166.67	\$8.47
3	Generator - Repair	25	8	\$12,000	\$8,160	\$0.00	\$48.81
4	Garage Exhaust Fan - Replace	12	0	\$9,600	\$9,600	\$9,600.00	\$81.35
5	Hallway Vent Fans - Replace	15	14	\$4,000	\$267	\$0.00	\$27.12
6	Mailboxes - Replace	20	3	\$10,500	\$8,925	\$8,925.00	\$53.38
7	Wood Fence - Replace	20	6	\$21,200	\$14,840	\$0.00	\$107.78
8	Hallway Carpet - Replace	8	7	\$87,000	\$10,875	\$0.00	\$1,105.80
9	Stairwell Carpet - Replace	16	15	\$8,100	\$506	\$0.00	\$51.48
10	Intercom - Replace	12	6	\$4,500	\$2,250	\$0.00	\$38.13
11	Vehicle Gate Mech Repair	3	2	\$1,000	\$333	\$333.33	\$33.89
12	Boilers - Annual Repairs	1	0	\$3,500	\$3,500	\$3,500.00	\$355.89
13	Hallways - Refurbish	16	15	\$210,000	\$13,125	\$0.00	\$1,334.58
14	Library - Remodel	16	0	\$7,600	\$7,600	\$7,600.00	\$48.30
15	Lobby - Refurbish	8	1	\$5,000	\$4,375	\$4,375.00	\$63.55
16	Rec Room - Remodel	16	0	\$8,000	\$8,000	\$8,000.00	\$50.84
17	Restroom - Remodel	16	4	\$15,000	\$11,250	\$6,070.33	\$95.33
18	Washer/Dryer - Replace	8	3	\$3,600	\$2,250	\$2,250.00	\$45.76
19	Iron Fence/Rail - Repaint	4	0	\$6,200	\$6,200	\$6,200.00	\$157.61
20	Wood Fence - Stain/Seal	5	0	\$2,600	\$2,600	\$2,600.00	\$52.87
21	Stairwell Walls - Repaint	16	15	\$8,500	\$531	\$0.00	\$54.02
22	Stucco - Repaint	10	0	\$126,000	\$126,000	\$126,000.00	\$1,281.20
23	Parking Spaces - Restripe	10	0	\$3,500	\$3,500	\$3,500.00	\$35.59
24	Flat Roof - Replace	15	12	\$343,750	\$68,750	\$0.00	\$2,330.22
25	Spa - Resurface	10	0	\$4,000	\$4,000	\$4,000.00	\$40.67
26	Spa Filter - Replace	15	13	\$1,000	\$133	\$0.00	\$6.78
27	Spa Heater - Replace	10	0	\$2,700	\$2,700	\$2,700.00	\$27.45
28	Elevator - Modernize	20	4	\$225,000	\$180,000	\$0.00	\$1,143.93
29	Elevator Cab - Remodel	15	4	\$32,000	\$23,467	\$23,466.67	\$216.92
30	Fire Alarm System - Replace	10	0	\$7,200	\$7,200	\$7,200.00	\$73.21
31	Plumbing - Annual Repairs	1	0	\$3,000	\$3,000	\$3,000.00	\$305.05
31	Total Funded Components				\$550,604	\$245,987	\$9,670

	Fiscal Yea	r Beginning:	01/01/14		Interest:	1.0%	Inflation:	3.0%
	Starting	Fully			Contribs,		Projected	Ending
	Reserve	Funded	Percent		Loans, and	Interest	Reserve	Reserve
Year	Balance	Balance	Funded	Rating	Spec. Assmts	Income	Expenses	Balance
2014	\$245,987	\$550,604	44.7%	Fair	\$116,040	\$2,052	\$199,400	\$164,679
2015	\$164,679	\$459,693	35.8%	 Fair	\$119,521	\$2,189	\$13,133	\$273,257
2016	\$273,257	\$560,849	48.7%	 Fair	\$123,107	\$3,324	\$7,957	\$391,731
2017	\$391,731	\$673,398	58.2%	 Fair	\$126,800	\$4,459	\$22,510	\$500,480
2018	\$500,480	\$777,450	64.4%	Fair	\$130,604	\$3,987	\$337,878	\$297,193
2019	\$297,193	\$563,006	52.8%	Fair	\$134,522	\$3,602	\$11,709	\$423,608
2020	\$423,608	\$681,391	62.2%	Fair	\$138,558	\$4,758	\$38,448	\$528,476
2021	\$528,476	\$779,192	67.8%	Fair	\$142,715	\$5,448	\$114,993	\$561,646
2022	\$561,646	\$804,594	69.8%	Fair	\$146,996	\$6,118	\$52,191	\$662,569
2023	\$662,569	\$899,059	73.7%	Strong	\$151,406	\$7,341	\$15,005	\$806,312
2024	\$806,312	\$1,038,383	77.7%	Strong	\$155,948	\$7,854	\$204,947	\$765,167
2025	\$765,167	\$990,079	77.3%	Strong	\$160,626	\$8,416	\$15,365	\$918,845
2026	\$918,845	\$1,139,545	80.6%	Strong	\$165,445	\$7,329	\$543,999	\$547,620
2027	\$547,620	\$753,070	72.7%	Strong	\$170,409	\$6,302	\$11,014	\$713,317
2028	\$713,317	\$908,165	78.5%	Strong	\$175,521	\$7,960	\$17,395	\$879,403
2029	\$879,403	\$1,065,656	82.5%	Strong	\$180,787	\$7,217	\$502,756	\$564,651
2030	\$564,651	\$732,395	77.1%	Strong	\$186,210	\$6,245	\$72,292	\$684,813
2031	\$684,813	\$837,092	81.8%	Strong	\$191,796	\$7,739	\$20,661	\$863,688
2032	\$863,688	\$1,002,825	86.1%	Strong	\$197,550	\$9,575	\$18,727	\$1,052,087
2033	\$1,052,087	\$1,180,380	89.1%	Strong	\$203,477	\$11,220	\$73,823	\$1,192,962
2034	\$1,192,962	\$1,311,515	91.0%	Strong	\$209,581	\$11,312	\$343,522	\$1,070,332
2035	\$1,070,332	\$1,173,947	91.2%	Strong	\$215,869	\$11,776	\$12,092	\$1,285,885
2036	\$1,285,885	\$1,378,932	93.3%	Strong	\$222,345	\$13,972	\$12,455	\$1,509,747
2037	\$1,509,747	\$1,595,160	94.6%	Strong	\$229,015	\$15,276	\$207,227	\$1,546,812
2038	\$1,546,812	\$1,622,890	95.3%	Strong	\$235,885	\$14,041	\$534,218	\$1,262,519
2039	\$1,262,519	\$1,320,450	95.6%	Strong	\$242,962	\$13,755	\$29,522	\$1,489,715
2040	\$1,489,715	\$1,534,747	97.1%	Strong	\$249,036	\$15,906	\$61,894	\$1,692,762
2041	\$1,692,762	\$1,728,283	97.9%	Strong	\$255,262	\$14,340	\$786,003	\$1,176,360
2042	\$1,176,360	\$1,188,130	99.0%	Strong	\$261,643	\$12,796	\$66,807	\$1,383,993
2043	\$1,383,993	\$1,379,072	100.4%	Strong	\$268,185	\$15,114	\$27,101	\$1,640,191

# Table 5: 30-Year Income/Expense Detail (yrs 0 through 4)

	Fiscal Year	2014	2015	2016	2017	2018
	Starting Reserve Balance	\$245,987	\$164,679	\$273,257	\$391,731	\$500,480
	Annual Reserve Contribution	\$116,040	\$119,521	\$123,107	\$126,800	\$130,604
	Planned Special Assessments	\$0	\$0	\$0	\$0	\$0
	Interest Earnings	\$2,052	\$2,189	\$3,324	\$4,459	\$3,987
-	Subtotal	\$364,079	\$286,389	\$399,687	\$522,990	\$635,070
#	Component					
1	Outdoor Walkway - Resurface	\$15,500	\$0	\$0	\$0	\$17,445
2	Wood Deck - Resurface/Reseal	\$0	\$1,288	\$0	\$0	\$0
3	Generator - Repair	\$0	\$0	\$0	\$0	\$0
4	Garage Exhaust Fan - Replace	\$9,600	\$0	\$0	\$0	\$0
5	Hallway Vent Fans - Replace	\$0	\$0	\$0	\$0	\$0
6	Mailboxes - Replace	\$0	\$0	\$0	\$11,474	\$0
7	Wood Fence - Replace	\$0	\$0	\$0	\$0	\$0
8	Hallway Carpet - Replace	\$0	\$0	\$0	\$0	\$0
9	Stairwell Carpet - Replace	\$0	\$0	\$0	\$0	\$0
10	Intercom - Replace	\$0	\$0	\$0	\$0	\$0
11	Vehicle Gate Mech Repair	\$0	\$0	\$1,061	\$0	\$0
12	Boilers - Annual Repairs	\$3,500	\$3,605	\$3,713	\$3,825	\$3,939
13	Hallways - Refurbish	\$0	\$0	\$0	\$0	\$0
14	Library - Remodel	\$7,600	\$0	\$0	\$0	\$0
15	Lobby - Refurbish	\$0	\$5,150	\$0	\$0	\$0
16	Rec Room - Remodel	\$8,000	\$0	\$0	\$0	\$0
17	Restroom - Remodel	\$0	\$0	\$0	\$0	\$16,883
18	Washer/Dryer - Replace	\$0	\$0	\$0	\$3,934	\$0
19	Iron Fence/Rail - Repaint	\$6,200	\$0	\$0	\$0	\$6,978
20	Wood Fence - Stain/Seal	\$2,600	\$0	\$0	\$0	\$0
21	Stairwell Walls - Repaint	\$0	\$0	\$0	\$0	\$0
22	Stucco - Repaint	\$126,000	\$0	\$0	\$0	\$0
23	Parking Spaces - Restripe	\$3,500	\$0	\$0	\$0	\$0
24	Flat Roof - Replace	\$0	\$0	\$0	\$0	\$0
25	Spa - Resurface	\$4,000	\$0	\$0	\$0	\$0
26	Spa Filter - Replace	\$0	\$0	\$0	\$0	\$0
27	Spa Heater - Replace	\$2,700	\$0	\$0	\$0	\$0
28	Elevator - Modernize	\$0	\$0	\$0	\$0	\$253,239
29	Elevator Cab - Remodel	\$0	\$0	\$0	\$0	\$36,016
30	Fire Alarm System - Replace	\$7,200	\$0	\$0	\$0	\$0
31	Plumbing - Annual Repairs	\$3,000	\$3,090	\$3,183	\$3,278	\$3,377
-	Subtotal	\$199,400	\$13,133	\$7,957	\$22,510	\$337,878

IDI	e 5: 30-Year Income/Expens	se Detail (yrs 5 t	nrougn 9)			DIY
	Fiscal Year	2019	2020	2021	2022	2023
	Starting Reserve Balance	\$297,193	\$423,608	\$528,476	\$561,646	\$662,569
	Annual Reserve Contribution	\$134,522	\$138,558	\$142,715	\$146,996	\$151,406
	Planned Special Assessments	\$0	\$0	\$0	\$0	\$(
	Interest Earnings	\$3,602	\$4,758	\$5,448	\$6,118	\$7,34
-	Subtotal	\$435,317	\$566,925	\$676,639	\$714,760	\$821,317
#	Component					
1	Outdoor Walkway - Resurface	\$0	\$0	\$0	\$19,635	\$0
2	Wood Deck - Resurface/Reseal	\$0	\$0	\$0	\$0	\$0
3	Generator - Repair	\$0	\$0	\$0	\$15,201	\$0
4	Garage Exhaust Fan - Replace	\$0	\$0	\$0	\$0	\$0
5	Hallway Vent Fans - Replace	\$0	\$0	\$0	\$0	\$0
6	Mailboxes - Replace	\$0	\$0	\$0	\$0	\$0
7	Wood Fence - Replace	\$0	\$25,314	\$0	\$0	\$
8	Hallway Carpet - Replace	\$0	\$0	\$106,999	\$0	\$6
9	Stairwell Carpet - Replace	\$0	\$0	\$0	\$0	\$
10	Intercom - Replace	\$0	\$5,373	\$0	\$0	\$
11	Vehicle Gate Mech Repair	\$1,159	\$0	\$0	\$1,267	\$
12	Boilers - Annual Repairs	\$4,057	\$4,179	\$4,305	\$4,434	\$4,56
13	Hallways - Refurbish	\$0	\$0	\$0	\$0	\$
14	Library - Remodel	\$0	\$0	\$0	\$0	\$
15	Lobby - Refurbish	\$0	\$0	\$0	\$0	\$6,52
16	Rec Room - Remodel	\$0	\$0	\$0	\$0	\$
17	Restroom - Remodel	\$0	\$0	\$0	\$0	\$
18	Washer/Dryer - Replace	\$0	\$0	\$0	\$0	\$
19	Iron Fence/Rail - Repaint	\$0	\$0	\$0	\$7,854	\$
20	Wood Fence - Stain/Seal	\$3,014	\$0	\$0	\$0	\$
21	Stairwell Walls - Repaint	\$0	\$0	\$0	\$0	\$
22	Stucco - Repaint	\$0	\$0	\$0	\$0	\$
23	Parking Spaces - Restripe	\$0	\$0	\$0	\$0	\$
24	Flat Roof - Replace	\$0	\$0	\$0	\$0	\$
25	Spa - Resurface	\$0	\$0	\$0	\$0	\$
26	Spa Filter - Replace	\$0	\$0	\$0	\$0	\$
27	Spa Heater - Replace	\$0	\$0	\$0	\$0	\$
28	Elevator - Modernize	\$0	\$0	\$0	\$0	\$
29	Elevator Cab - Remodel	\$0	\$0	\$0	\$0	\$
30	Fire Alarm System - Replace	\$0	\$0	\$0	\$0	\$
31	Plumbing - Annual Repairs	\$3,478	\$3,582	\$3,690	\$3,800	\$3,91
-	Subtotal	\$11,709	\$38,448	\$114,993	\$52,191	\$15,00
	Ending Reserve Balance:	\$423,608	\$528,476	\$561,646	\$662,569	\$806,312

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# Table 5: 30-Year Income/Expense Detail (yrs 10 through 14)

	Fiscal Year	2024	2025	2026	2027	2028
	Starting Reserve Balance	\$806,312	\$765,167	\$918,845	\$547,620	\$713,317
	Annual Reserve Contribution	\$155,948	\$160,626	\$165,445	\$170,409	\$175,521
	Planned Special Assessments	\$0	\$0	\$0	\$0	\$0
	Interest Earnings	\$7,854	\$8,416	\$7,329	\$6,302	\$7,960
-	Subtotal	\$970,114	\$934,210	\$1,091,619	\$724,331	\$896,798
#	Component					
1	Outdoor Walkway - Resurface	\$0	\$0	\$22,099	\$0	\$0
2	Wood Deck - Resurface/Reseal	\$0	\$0	\$0	\$0	\$0
3	Generator - Repair	\$0	\$0	\$0	\$0	\$0
4	Garage Exhaust Fan - Replace	\$0	\$0	\$13,687	\$0	\$0
5	Hallway Vent Fans - Replace	\$0	\$0	\$0	\$0	\$6,050
6	Mailboxes - Replace	\$0	\$0	\$0	\$0	\$0
7	Wood Fence - Replace	\$0	\$0	\$0	\$0	\$0
8	Hallway Carpet - Replace	\$0	\$0	\$0	\$0	\$0
9	Stairwell Carpet - Replace	\$0	\$0	\$0	\$0	\$0
10	Intercom - Replace	\$0	\$0	\$0	\$0	\$0
11	Vehicle Gate Mech Repair	\$0	\$1,384	\$0	\$0	\$1,513
12	Boilers - Annual Repairs	\$4,704	\$4,845	\$4,990	\$5,140	\$5,294
13	Hallways - Refurbish	\$0	\$0	\$0	\$0	\$0
14	Library - Remodel	\$0	\$0	\$0	\$0	\$0
15	Lobby - Refurbish	\$0	\$0	\$0	\$0	\$0
16	Rec Room - Remodel	\$0	\$0	\$0	\$0	\$0
17	Restroom - Remodel	\$0	\$0	\$0	\$0	\$0
18	Washer/Dryer - Replace	\$0	\$4,983	\$0	\$0	\$0
19	Iron Fence/Rail - Repaint	\$0	\$0	\$8,840	\$0	\$0
20	Wood Fence - Stain/Seal	\$3,494	\$0	\$0	\$0	\$0
21	Stairwell Walls - Repaint	\$0	\$0	\$0	\$0	\$0
22	Stucco - Repaint	\$169,333	\$0	\$0	\$0	\$0
23	Parking Spaces - Restripe	\$4,704	\$0	\$0	\$0	\$0
24	Flat Roof - Replace	\$0	\$0	\$490,105	\$0	\$0
25	Spa - Resurface	\$5,376	\$0	\$0	\$0	\$0
26	Spa Filter - Replace	\$0	\$0	\$0	\$1,469	\$0
27	Spa Heater - Replace	\$3,629	\$0	\$0	\$0	\$0
28	Elevator - Modernize	\$0	\$0	\$0	\$0	\$0
29	Elevator Cab - Remodel	\$0	\$0	\$0	\$0	\$0
30	Fire Alarm System - Replace	\$9,676	\$0	\$0	\$0	\$0
31	Plumbing - Annual Repairs	\$4,032	\$4,153	\$4,277	\$4,406	\$4,538
-	Subtotal	\$204,947	\$15,365	\$543,999	\$11,014	\$17,395
	Ending Reserve Balance:	\$765,167	\$918,845	\$547,620	\$713,317	\$879,403

# Table 5: 30-Year Income/Expense Detail (yrs 15 through 19)

	Fiscal Year	2029	2030	2031	2032	2033
	Starting Reserve Balance	\$879,403	\$564,651	\$684,813	\$863,688	\$1,052,087
	Annual Reserve Contribution	\$180,787	\$186,210	\$191,796	\$197,550	\$203,477
	Planned Special Assessments	\$0	\$0	\$0	\$0	\$0
	Interest Earnings	\$7,217	\$6,245	\$7,739	\$9,575	\$11,220
-	Subtotal	\$1,067,407	\$757,105	\$884,349	\$1,070,814	\$1,266,784
#	Component					
1	Outdoor Walkway - Resurface	\$0	\$24,873	\$0	\$0	\$0
2	Wood Deck - Resurface/Reseal	\$0	\$2,006	\$0	\$0	\$0
3	Generator - Repair	\$0	\$0	\$0	\$0	\$0
4	Garage Exhaust Fan - Replace	\$0	\$0	\$0	\$0	\$0
5	Hallway Vent Fans - Replace	\$0	\$0	\$0	\$0	\$0
6	Mailboxes - Replace	\$0	\$0	\$0	\$0	\$0
7	Wood Fence - Replace	\$0	\$0	\$0	\$0	\$0
8	Hallway Carpet - Replace	\$135,543	\$0	\$0	\$0	\$0
9	Stairwell Carpet - Replace	\$12,620	\$0	\$0	\$0	\$0
10	Intercom - Replace	\$0	\$0	\$0	\$7,661	\$0
11	Vehicle Gate Mech Repair	\$0	\$0	\$1,653	\$0	\$0
12	Boilers - Annual Repairs	\$5,453	\$5,616	\$5,785	\$5,959	\$6,137
13	Hallways - Refurbish	\$327,173	\$0	\$0	\$0	\$0
14	Library - Remodel	\$0	\$12,196	\$0	\$0	\$0
15	Lobby - Refurbish	\$0	\$0	\$8,264	\$0	\$0
16	Rec Room - Remodel	\$0	\$12,838	\$0	\$0	\$0
17	Restroom - Remodel	\$0	\$0	\$0	\$0	\$0
18	Washer/Dryer - Replace	\$0	\$0	\$0	\$0	\$6,313
19	Iron Fence/Rail - Repaint	\$0	\$9,949	\$0	\$0	\$0
20	Wood Fence - Stain/Seal	\$4,051	\$0	\$0	\$0	\$0
21	Stairwell Walls - Repaint	\$13,243	\$0	\$0	\$0	\$0
22	Stucco - Repaint	\$0	\$0	\$0	\$0	\$0
23	Parking Spaces - Restripe	\$0	\$0	\$0	\$0	\$0
24	Flat Roof - Replace	\$0	\$0	\$0	\$0	\$0
25	Spa - Resurface	\$0	\$0	\$0	\$0	\$0
26	Spa Filter - Replace	\$0	\$0	\$0	\$0	\$0
27	Spa Heater - Replace	\$0	\$0	\$0	\$0	\$0
28	Elevator - Modernize	\$0	\$0	\$0	\$0	\$0
29	Elevator Cab - Remodel	\$0	\$0	\$0	\$0	\$56,112
30	Fire Alarm System - Replace	\$0	\$0	\$0	\$0	\$0
31	Plumbing - Annual Repairs	\$4,674	\$4,814	\$4,959	\$5,107	\$5,261
-	Subtotal	\$502,756	\$72,292	\$20,661	\$18,727	\$73,823
	Ending Reserve Balance:	\$564,651	\$684,813	\$863,688	\$1,052,087	\$1,192,962

# Table 5: 30-Year Income/Expense Detail (yrs 20 through 24)

	Fiscal Year	2034	2035	2036	2037	2038
	Starting Reserve Balance	\$1,192,962	\$1,070,332	\$1,285,885	\$1,509,747	\$1,546,812
	Annual Reserve Contribution	\$209,581	\$215,869	\$222,345	\$229,015	\$235,885
	Planned Special Assessments	\$0	\$0	\$0	\$0	\$0
	Interest Earnings	\$11,312	\$11,776	\$13,972	\$15,276	\$14,041
-	Subtotal	\$1,413,854	\$1,297,977	\$1,522,202	\$1,754,038	\$1,796,738
#	Component					
1	Outdoor Walkway - Resurface	\$27,995	\$0	\$0	\$0	\$31,508
2	Wood Deck - Resurface/Reseal	\$0	\$0	\$0	\$0	\$0
3	Generator - Repair	\$0	\$0	\$0	\$0	\$0
4	Garage Exhaust Fan - Replace	\$0	\$0	\$0	\$0	\$19,515
5	Hallway Vent Fans - Replace	\$0	\$0	\$0	\$0	\$0
6	Mailboxes - Replace	\$0	\$0	\$0	\$20,723	\$0
7	Wood Fence - Replace	\$0	\$0	\$0	\$0	\$0
8	Hallway Carpet - Replace	\$0	\$0	\$0	\$171,702	\$0
9	Stairwell Carpet - Replace	\$0	\$0	\$0	\$0	\$0
10	Intercom - Replace	\$0	\$0	\$0	\$0	\$0
11	Vehicle Gate Mech Repair	\$1,806	\$0	\$0	\$1,974	\$0
12	Boilers - Annual Repairs	\$6,321	\$6,511	\$6,706	\$6,908	\$7,115
13	Hallways - Refurbish	\$0	\$0	\$0	\$0	\$0
14	Library - Remodel	\$0	\$0	\$0	\$0	\$0
15	Lobby - Refurbish	\$0	\$0	\$0	\$0	\$0
16	Rec Room - Remodel	\$0	\$0	\$0	\$0	\$0
17	Restroom - Remodel	\$27,092	\$0	\$0	\$0	\$0
18	Washer/Dryer - Replace	\$0	\$0	\$0	\$0	\$0
19	Iron Fence/Rail - Repaint	\$11,198	\$0	\$0	\$0	\$12,603
20	Wood Fence - Stain/Seal	\$4,696	\$0	\$0	\$0	\$0
21	Stairwell Walls - Repaint	\$0	\$0	\$0	\$0	\$0
22	Stucco - Repaint	\$227,570	\$0	\$0	\$0	\$0
23	Parking Spaces - Restripe	\$6,321	\$0	\$0	\$0	\$0
24	Flat Roof - Replace	\$0	\$0	\$0	\$0	\$0
25	Spa - Resurface	\$7,224	\$0	\$0	\$0	\$0
26	Spa Filter - Replace	\$0	\$0	\$0	\$0	\$0
27	Spa Heater - Replace	\$4,877	\$0	\$0	\$0	\$0
28	Elevator - Modernize	\$0	\$0	\$0	\$0	\$457,379
29	Elevator Cab - Remodel	\$0	\$0	\$0	\$0	\$0
30	Fire Alarm System - Replace	\$13,004	\$0	\$0	\$0	\$0
31	Plumbing - Annual Repairs	\$5,418	\$5,581	\$5,748	\$5,921	\$6,098
-	Subtotal	\$343,522	\$12,092	\$12,455	\$207,227	\$534,218
	Ending Reserve Balance:	\$1,070,332	\$1,285,885	\$1,509,747	\$1,546,812	\$1,262,519

# Table 5: 30-Year Income/Expense Detail (yrs 25 through 29)

	Fiscal Year	2039	2040	2041	2042	2043
	Starting Reserve Balance	\$1,262,519	\$1,489,715	\$1,692,762	\$1,176,360	\$1,383,993
	Annual Reserve Contribution	\$242,962	\$249,036	\$255,262	\$261,643	\$268,185
	Planned Special Assessments	\$0	\$0	\$0	\$0	\$0
	Interest Earnings	\$13,755	\$15,906	\$14,340	\$12,796	\$15,114
-	Subtotal	\$1,519,237	\$1,754,656	\$1,962,363	\$1,450,800	\$1,667,292
#	Component					
1	Outdoor Walkway - Resurface	\$0	\$0	\$0	\$35,463	\$0
2	Wood Deck - Resurface/Reseal	\$0	\$0	\$0	\$0	\$0
3	Generator - Repair	\$0	\$0	\$0	\$0	\$0
4	Garage Exhaust Fan - Replace	\$0	\$0	\$0	\$0	\$0
5	Hallway Vent Fans - Replace	\$0	\$0	\$0	\$0	\$9,426
6	Mailboxes - Replace	\$0	\$0	\$0	\$0	\$0
7	Wood Fence - Replace	\$0	\$45,720	\$0	\$0	\$0
8	Hallway Carpet - Replace	\$0	\$0	\$0	\$0	\$0
9	Stairwell Carpet - Replace	\$0	\$0	\$0	\$0	\$0
10	Intercom - Replace	\$0	\$0	\$0	\$0	\$0
11	Vehicle Gate Mech Repair	\$0	\$2,157	\$0	\$0	\$2,357
12	Boilers - Annual Repairs	\$7,328	\$7,548	\$7,775	\$8,008	\$8,248
13	Hallways - Refurbish	\$0	\$0	\$0	\$0	\$0
14	Library - Remodel	\$0	\$0	\$0	\$0	\$0
15	Lobby - Refurbish	\$10,469	\$0	\$0	\$0	\$0
16	Rec Room - Remodel	\$0	\$0	\$0	\$0	\$0
17	Restroom - Remodel	\$0	\$0	\$0	\$0	\$0
18	Washer/Dryer - Replace	\$0	\$0	\$7,997	\$0	\$0
19	Iron Fence/Rail - Repaint	\$0	\$0	\$0	\$14,185	\$0
20	Wood Fence - Stain/Seal	\$5,444	\$0	\$0	\$0	\$0
21	Stairwell Walls - Repaint	\$0	\$0	\$0	\$0	\$0
22	Stucco - Repaint	\$0	\$0	\$0	\$0	\$0
23	Parking Spaces - Restripe	\$0	\$0	\$0	\$0	\$0
24	Flat Roof - Replace	\$0	\$0	\$763,568	\$0	\$0
25	Spa - Resurface	\$0	\$0	\$0	\$0	\$0
26	Spa Filter - Replace	\$0	\$0	\$0	\$2,288	\$0
27	Spa Heater - Replace	\$0	\$0	\$0	\$0	\$0
28	Elevator - Modernize	\$0	\$0	\$0	\$0	\$0
29	Elevator Cab - Remodel	\$0	\$0	\$0	\$0	\$0
30	Fire Alarm System - Replace	\$0	\$0	\$0	\$0	\$0
31	Plumbing - Annual Repairs	\$6,281	\$6,470	\$6,664	\$6,864	\$7,070
=	Subtotal	\$29,522	\$61,894	\$786,003	\$66,807	\$27,101
	Ending Reserve Balance:	\$1,489,715	\$1,692,762	\$1,176,360	\$1,383,993	\$1,640,191

# Accuracy, Limitations, and Disclosures

Because we have no control over future events, we cannot claim that all the events we anticipate will occur as planned. We expect that inflationary trends will continue, and we expect that financial institutions will provide interest earnings on funds on-deposit. We believe that reasonable estimates for these figures are much more accurate than ignoring these economic realities. The things that <u>can</u> be controlled are measurements, starting Reserve Balance, and interest rate. For this Report these figures have been provided to us, and were not confirmed by our independent research. Our projections assume a stable economic environment and lack of natural disasters.

Because both the physical status and financial status of the association change each year, this Reserve Study is by nature a "one-year" document. This information can and should be adjusted annually as part of the Reserve Study Update process so that more accurate estimates can be reflected in the Reserve plan. Reality often differs from even the best assumptions due to changing economic factors, physical factors, or ownership expectations. Because many years of financial preparation help the preparation for large expenses, this Report shows expenses for the next 30 years. We fully expect a number of adjustments will be necessary through the interim years to both the cost and timing of distant expense projections. It is our recommendation and that of the American Institute of Certified Public Accountants (AICPA) that your Reserve Study be updated annually.

Association Reserves, Inc., and its employees have no ownership, management, or other business relationships with the client other than this Reserve Study engagement. Robert M. Nordlund, P.E., R.S., company president, is a California licensed Professional Engineer (Mechanical, #22322), and credentialed Reserve Specialist (#5). All work done by Association Reserves is performed under his Responsible Charge. There are no material issues to our knowledge that have not been disclosed to the client that would cause a distortion of the association's situation.

The Board of Directors has agreed to accept full responsibility for the accuracy of the information provided to us. They have been told that Association Reserves, Inc. will not verify the accuracy of the information submitted. As a result, Association Reserves will not be responsible for updates or revisions to this Report required as a result of errors, omissions, or changes in the information that was provided to us.

## **Terms and Definitions**

BTU British Thermal Unit (a standard unit of energy)

**DIA** Diameter

GSF Gross Square Feet (area)
GSY Gross Square Yards (area)

**HP** Horsepower

**LF** Linear Feet (length)

Effective Age: The difference between Useful Life and Remaining Useful Life. Note

that this is not necessarily equivalent to the chronological age of the

component.

Fully Funded Balance (FFB): The Reserve Balance that is in direct proportion to the

fraction of life "used up" of the current Repair or Replacement cost. This benchmark balance represents the value of the deterioration of the Reserve Components. This number is calculated for each component,

then summed together for an association total.

FFB = (Current Cost X Effective Age) / Useful Life

**Inflation**: Cost factors are adjusted for inflation at the rate defined in the

Executive Summary and compounded annually. These increasing costs can be seen as you follow the recurring cycles of a component on

Table 5.

**Interest**: Interest earnings on Reserve Funds are calculated using the average

balance for the year (taking into account income and expenses through

the year) and compounded monthly using the rate defined in the

Executive Summary. Annual interest earning assumption appears in the

Executive Summary, page ii.

**Percent Funded**: The ratio, at a particular point in time (typically the beginning of the

Fiscal Year), of the actual (or projected) Reserve Balance to the Fully

Funded Balance, expressed as a percentage.

Remaining Useful Life: The estimated time, in years, that a common area component

can be expected to continue to serve its intended function.

**Useful Life**: The estimated time, in years, that a common area component can be

expected to serve its intended function.

## **Do-It-Yourself Worksheets**

Note: Any questions relating to the information contained in this Appendix should be directed to the contact person indicated on the following page.