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## **“Full” Reserve Study**



## **Sample High Rise Anywhere, USA**

**Report #: 9999-0 HR**  
**For Period Beginning: January 1, 2006**  
**Ending: December 31, 2006**

**Date Prepared: September 23, 2005**

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## Hello, and welcome to your Reserve Study!

It's all very simple, really. A Reserve Study is the *art and science* of anticipating, and preparing for, major common area repair and replacement costs. With our experience in this industry, we have gathered the information necessary to make an evaluation of the current status of your Reserve Components, an evaluation of the current status of your Reserve Fund, and a recommended Reserve Funding Plan.

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.

While this Report has been prepared to answer all of your questions, please don't hesitate to call us if unanswered questions remain. Our toll-free number is (800) 733-1365, and answers to most frequently asked questions are on our web site ([www.ReserveStudy.com](http://www.ReserveStudy.com)). A *Quick Reference Guide* is provided on the following page, to map out your Reserve Study and provide directions to the most valuable areas. From the entire staff of Association Reserves, thank you for selecting us as your Reserve-planning partner!



## Quick Reference Guide



### **What do I distribute to the homeowners?**

A good choice is to distribute copies of the “Executive Summary” immediately following the Table of Contents (a summary page and the Reserve Component Listing).

### **Where do I find...**

#### ***...a listing of our Reserve Components?***

Table 2 shows the name, Useful Life, Remaining Useful Life, and current Replacement Cost.

#### ***...our Percent Funded rating and recommended Reserve Contribution Rate?***

With our major financial summary information, in the Executive Summary (Page i)

#### ***...a description of our objectives and methodology?***

Beginning on Page 1 we introduce the Reserve Study, our objectives, and methodology.

#### ***...more detailed information on our site inspection?***

General site inspection notes can be found on Page 5. Photographs and specific information on each component can be found in the Photographic Inventory Appendix.

### **More questions?**

Visit our web site at [www.ReserveStudy.com](http://www.ReserveStudy.com)



or call us at (800) 733-1365.

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## Executive Summary

Association: Sample High Rise Assoc. #: 9999-0  
HR  
Location: Anywhere, USA  
# of Units: 350  
Report Period: January 1, 2006 through December 31, 2006

### Results

Projected Starting Reserve Balance: .....	\$792,100
Fully Funded Reserve Balance: .....	\$1,486,162
Percent Funded: .....	53.3%
Recommended 2006 monthly Reserve Contribution: .....	\$18,500
Recommended Special Assessment this year: .....	\$0
Most Recent Reserve Contribution Rate:.....	\$16,100

### Economic Assumptions:

Net Annual "After Tax" Interest Earnings Accruing to Reserves..... 2.50%  
Annual Inflation Rate..... 3.00%

- The information in this Reserve Study is based on our site inspection on September 1, 2005.
- Because your Reserve Fund is 53.3% Funded, this represents a mid-range position, well above the 0-30% "weak" range below the 70% threshold that typifies Reserve Fund strength.
- Your multi-year Funding Plan is designed to gradually bring you to the 100% level, or "Fully Funded".
- Reserve projects anticipated this year include building exterior sealing, replacement of the cooling tower on the roof, some new exercise equipment, and some funds for pumps and valve expenses. Note that next year we anticipate a major hallway project renovation involving new carpet and hallway trim paint.

# Component	Useful Life (yrs)	Rem. Useful Life (yrs)	Current Average Cost	Future Average Cost
306 Air Handlers - Replace	3	2	\$7,000	\$7,426
308 Trash Compactor - Replace	10	3	\$14,000	\$15,298
309 Chillers - Replace	25	10	\$225,000	\$302,381
309 Chillers -Retrofit	4	3	\$20,000	\$21,855
310 Boilers - Refurbish	5	4	\$17,500	\$19,696
310 Culinary Boilers - Refurbish	5	4	\$12,750	\$14,350
311 Cooling Tower - Replace	15	0	\$75,000	\$116,848
312 Pumps & Valves - Replace	1	0	\$7,500	\$7,725
404 Patio Furniture - Replace	10	1	\$20,325	\$20,935
601 Carpet (hallways) - Replace	8	1	\$207,000	\$213,210
703 Intercom - Replace	12	2	\$8,500	\$9,018
902 Exercise Eqp -Partial Replace	3	0	\$9,500	\$10,381
903 Furniture - Replace	16	1	\$34,500	\$35,535
904 Kitchenette - Replace	15	5	\$15,250	\$17,679
907 Wallcovering - Replace	16	9	\$232,000	\$302,707
909 Bathrooms - Refurbish	15	5	\$22,500	\$26,084
1110 Interior Surfaces - Repaint	8	1	\$52,500	\$54,075
1119 Building Exterior - Seal	15	0	\$443,750	\$691,348
1202 Pool - Resurface	12	2	\$8,250	\$8,752
1303 Comp Shingle Roof - Replace	15	12	\$27,500	\$39,208
1307 Center Membrane Roof - Replace	15	12	\$42,900	\$61,165
1307 Tower Membrane Roof - Replace	20	14	\$132,000	\$199,662
1801 Elevator - Modernize	25	21	\$660,000	\$1,227,794
1802 Elevator Cab - Remodel	15	5	\$57,000	\$66,079
1803 Access Control System - Replace	8	5	\$55,000	\$63,760
1803 Fire Alarm System - Replace	25	12	\$300,000	\$427,728
<b>26 Total Funded Components</b>				

## 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. The Financial Analysis contains an evaluation of the association's Reserve balance (measured by Percent Funded) and a recommended Funding Plan to offset the anticipated Reserve expenses.

### Reserve Study

- Physical Analysis
- Financial Analysis

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

By necessity, the Physical Analysis occurs before the Financial Analysis (first we establish what the projected expenses are, then we determine the association’s financial status and create a Funding Plan). For this “Full” Reserve Study, the Physical Analysis starts with a review of your Governing Documents, recent Reserve expenditures, an evaluation of how expenditures are handled (ongoing maintenance vs Reserves), and research into any well-established association precedents. We performed an on-site inspection to inventory (quantify and evaluate) your common areas, creating your Reserve Component List “from scratch”. Your Reserve Component List (Table 1 or Table 2) contains a description and

### Reserve Study Types

- • Full
- Update With-Site-Visit
- Update No-Site-Visit
- Do-It-Yourself Kit

quantification of individual line items, and estimates for the Useful Life, Remaining Useful Life, and current Replacement Cost of each component. The average of the Best and Worst Case cost estimates are used for all calculations throughout the Financial Analysis. 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.

#### *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. First, it must be a common area maintenance responsibility. Second, the component must have a limited life. Third, the limited life must be predictable (or it by definition is 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. We 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 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”.

#### **Reserve Components**

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

#### *How are Useful Life and Remaining Useful Life established?*

Useful Life is typically established by our experience with the component, adjusted by assumptions for quality, rate of wear and tear, expected normal maintenance, and weather exposure. Remaining Useful Life is established primarily by the component's current observed condition. The observed age of the component may or may not equal the “Chronological Age” of the component due to accelerated wear or low usage. For components requiring a particular expertise or components where age characteristics are not visible (elevators, chillers, security electronics, etc.), it is typical that we interview the association's service vendor to obtain a recommendation for Useful Life and Remaining Useful Life.

*How are Cost Estimates Established?*

The best way to obtain an accurate cost for a component is for it to be repaired or replaced, providing us with a valuable benchmark from which to make current cost estimates. In absence of “actual” costs, we regularly make comparisons to projects that were done recently at similar associations. In addition, we often contact local vendors who provide us with insights into current pricing trends. For components that require a particular expertise (major roof or roadway systems, elevators, etc.), it is our normal practice to interview your vendor who maintains that asset. In the absence of these estimating tools, we look to reliable industry cost guidebooks. A “Best Case” and “Worst Case” cost estimate is made for each component in an attempt to bracket the actual cost.

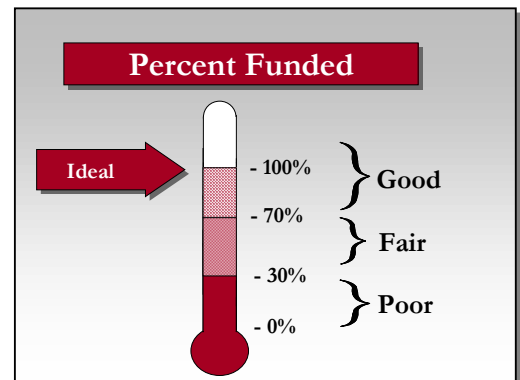
**Cost Estimating Tools**

- Association History
- Similar Properties
- Vendor Interviews
- Printed cost guides

*How much Reserves are enough?*

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, which is the actual (or projected) Reserve Balance divided by the association’s calculated Fully Funded Balance (FFB), expressed as a percentage. Table 3 shows that the Fully Funded Balance is the current “value” of the deteriorated portion (not the total replacement value) of all 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 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.

**Funding Principles**

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

*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.

**Funding Goals**

- Full Funding
- Threshold Funding
- Baseline Funding

Threshold Funding 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.

## **Site Inspection**

During our site visit on September 1, 2005, we started with a brief meeting with building manager Mr. Neal Johnson and two long-standing Boardmembers. Building engineer Mr. Steve Adkinson was brought into the meeting, and we began the site inspection with the mechanical room accessed through the parking area. The Boardmembers chose to follow us through this portion of the site inspection. After the mechanical room, we went to both rooftops and then began the interior inspection of hallways and common rooms.

We visually inspected both towers and the connecting area between buildings, and were able to see all rooftop areas . We were not able to inspect the composition shingle roof up close due to no access and light snow coverage.

During our site inspection we were informed that office assets are being handled from the Operational maintenance budget, not Reserves, as are all housekeeping equipment assets.

## 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 two large Reserve expense years this year and next year: for building exterior sealing, the cooling tower project, and hallway remodeling.

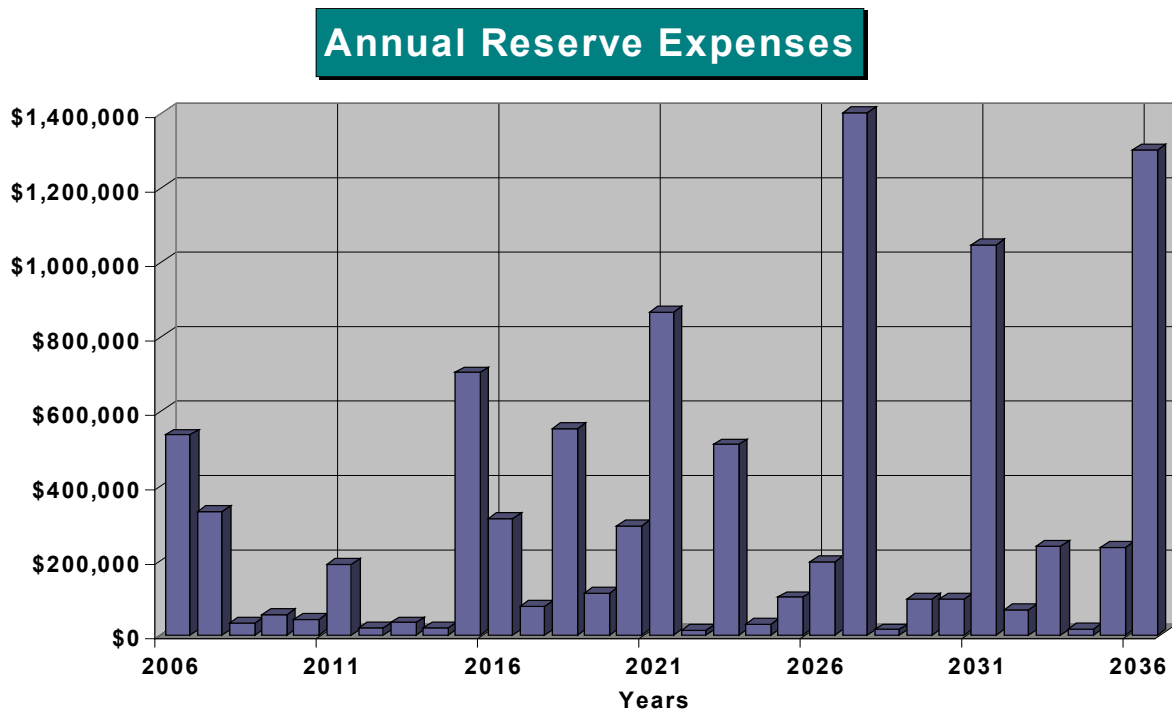


Figure 1

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.

## Reserve Fund Status

The starting point for our financial analysis is your Reserve Fund balance, projected to be \$792,100 as-of the start of your Fiscal Year on January 1, 2006. This is based on your actual balance on 10/31/00 of \$741,923 and anticipated Reserve contributions and expenses through the end of your Fiscal year. As of January 1, 2006, your Fully Funded Balance is computed to be \$1,486,162 (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 53% Funded. As indicated earlier in the Report, this represents a mid-range status.

## Recommended Funding Plan

Based on your current Percent Funded and your projected cash flow requirements, we are recommending Reserve contributions of \$18,500/month this Fiscal Year. This represents the first year of a 30-year Funding Plan. To most fairly spread out the contribution burden over current and future owners in our inflationary economic environment, nominal annual increases should be expected in future years. This Reserve contribution rate was established by testing different contribution rates and balancing the four Funding Principles in an attempt to eventually achieve Full Funding. Generally, the tools we utilize are regular ongoing contributions (for stability and fairness), and special assessments (used only as a last resort). Our recommended multi-year Funding Plan is shown below. This same information is shown numerically in both Table 4 and Table 5

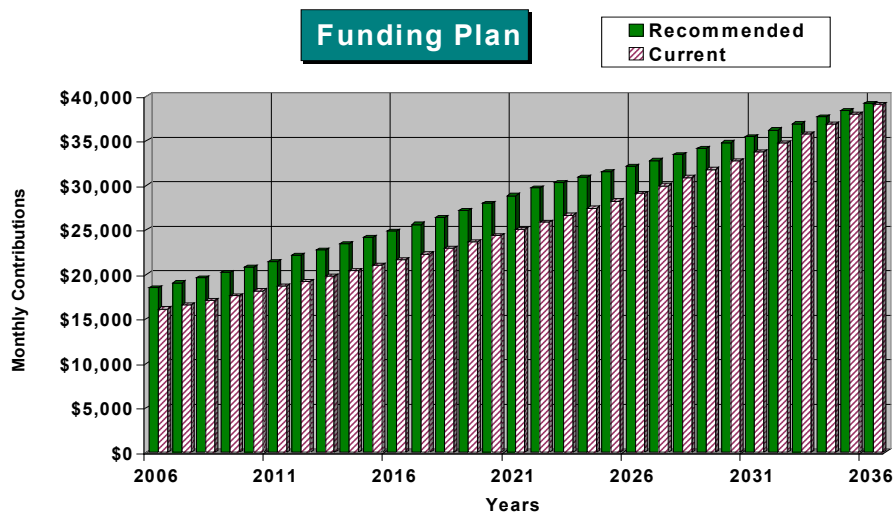


Figure 2

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. This assumes the future expenses we have projected in this

Reserve Study. Note that your Reserve Fund gradually draws close to the Fully Funded Balance profile over a period of approximately 20 years. Note that at your current Reserve contribution rate, your Reserves will gradually become completely depleted over this same 20 years. While your Reserve Balance might seem high in future years under our recommendation, remember that these figures are “inflated” future dollars. In addition, this Reserve Balance is necessary to prepare for expenses in following years and provide necessary “margin” for projects that will probably not occur exactly as planned.

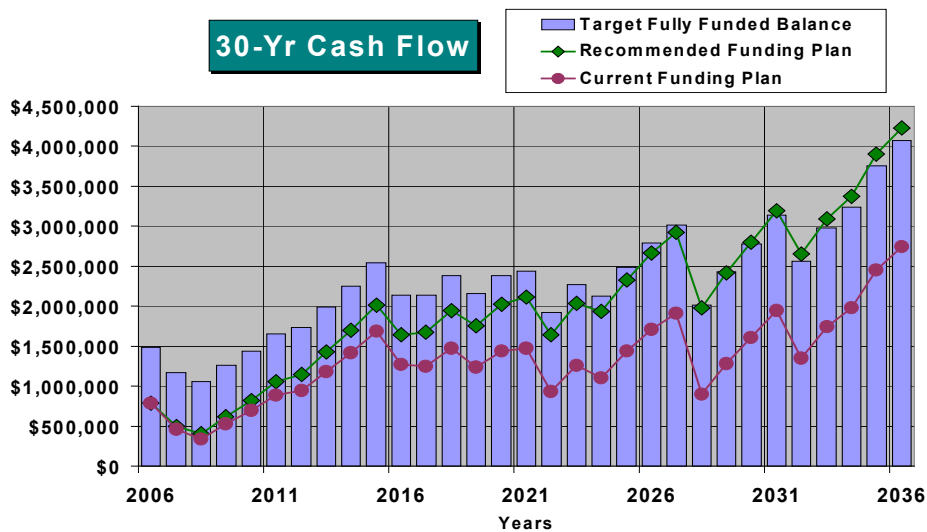


Figure 3

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.

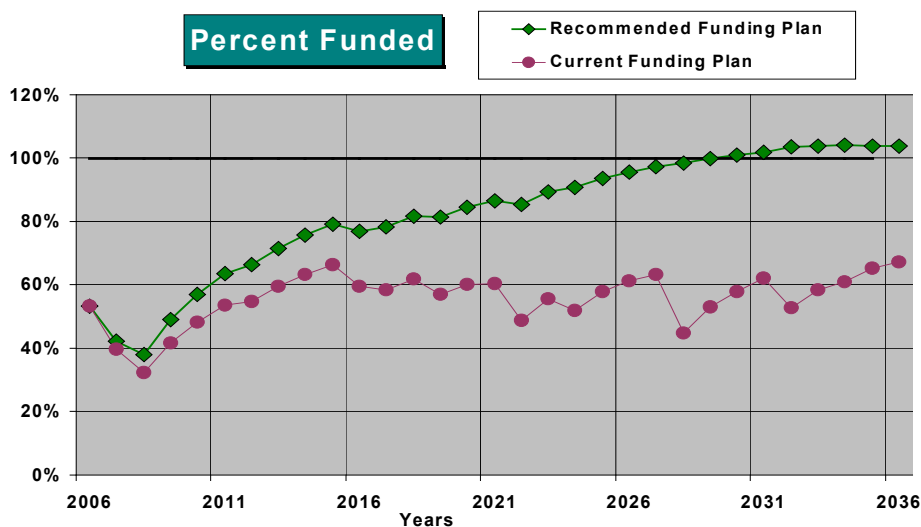


Figure 4

## Table Descriptions

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

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

Table 2 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.

Table 3 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.

Table 4: 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.

Table 5: 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.

**Table 2: Reserve Component List Detail** **9999-0 HR**

# Component	Quantity	Useful Life	Rem. Useful Life	Best Cost	Current Worst Cost
306 Air Handlers - Replace	Numerous air handlers	3	2	\$6,000	\$8,000
308 Trash Compactor - Replace	(2) Compackager	10	3	\$10,000	\$18,000
309 Chillers - Replace	(2) Carrier 350 Ton	25	10	\$200,000	\$250,000
309 Chillers -Retrofit	(2) Carrier 350 Ton	4	3	\$15,000	\$25,000
310 Boilers - Refurbish	(2) ThermoPak 5.5MBTU	5	4	\$15,000	\$20,000
310 Culinary Boilers - Refurbish	(2) ThermoPak 1.98MBTU	5	4	\$9,500	\$16,000
311 Cooling Tower - Replace	(1) BAC cooling tower	15	0	\$65,000	\$85,000
312 Pumps & Valves - Replace	Numerous pumps and valves	1	0	\$5,000	\$10,000
404 Patio Furniture - Replace	Approx (115) pieces	10	1	\$16,450	\$24,200
601 Carpet (hallways) - Replace	Approx 4600 Sq Yd	8	1	\$184,000	\$230,000
703 Intercom - Replace	(2) Entraguard	12	2	\$7,000	\$10,000
902 Exercise Eqp -Partial Replace	(1) 30 X 20 Room	3	0	\$8,000	\$11,000
903 Furniture - Replace	Approx 115 pieces	16	1	\$28,750	\$40,250
904 Kitchenette - Replace	(3) Kitchen areas	15	5	\$12,500	\$18,000
907 Wallcovering - Replace	Approx 121,000 Sq Ft	16	9	\$181,500	\$282,500
909 Bathrooms - Refurbish	Numerous Men & Women	15	5	\$18,000	\$27,000
1110 Interior Surfaces - Repaint	Extensive wall trim	8	1	\$45,000	\$60,000
1119 Building Exterior - Seal	Approx 110,000 Sq Ft	15	0	\$357,500	\$530,000
1202 Pool - Resurface	(1) 20 X 38 Pool	12	2	\$7,000	\$9,500
1303 Comp Shingle Roof - Replace	Approx 2500 Sq Ft	15	12	\$25,000	\$30,000
1307 Center Membrane Roof - Replace	Approx 7800 Sq Ft	15	12	\$39,000	\$46,800
1307 Tower Membrane Roof - Replace	Approx 12000 Sq Ft	20	14	\$120,000	\$144,000
1801 Elevator - Modernize	(6) Cable lifts	25	21	\$600,000	\$720,000
1802 Elevator Cab - Remodel	(6) Standard cabs	15	5	\$48,000	\$66,000
1803 Access Control System - Replace	(1) Key card system	8	5	\$45,000	\$65,000
1803 Fire Alarm System - Replace	(1) Central system	25	12	\$275,000	\$325,000
26 Total Funded Components					

**Table 3: Contribution and Fund Breakdown** **9999-0  
HR**

# Component	Useful Life	Rem. Useful Life	Current (Avg) Cost	Fully Funded Balance	Current Fund Balance	Reserve Contributions
306 Air Handlers - Replace	3	2	\$7,000	\$2,333	\$0.00	\$234.04
308 Trash Compactor - Replace	10	3	\$14,000	\$9,800	\$0.00	\$140.42
309 Chillers - Replace	25	10	\$225,000	\$135,000	\$0.00	\$902.73
309 Chillers -Retrofit	4	3	\$20,000	\$5,000	\$0.00	\$501.52
310 Boilers - Refurbish	5	4	\$17,500	\$3,500	\$0.00	\$351.06
310 Culinary Boilers - Refurbish	5	4	\$12,750	\$2,550	\$0.00	\$255.77
311 Cooling Tower - Replace	15	0	\$75,000	\$75,000	\$75,000.00	\$501.52
312 Pumps & Valves - Replace	1	0	\$7,500	\$7,500	\$7,500.00	\$752.28
404 Patio Furniture - Replace	10	1	\$20,325	\$18,293	\$18,292.50	\$203.87
601 Carpet (hallways) - Replace	8	1	\$207,000	\$181,125	\$181,125.00	\$2,595.35
703 Intercom - Replace	12	2	\$8,500	\$7,083	\$0.00	\$71.05
902 Exercise Eqp -Partial Replace	3	0	\$9,500	\$9,500	\$9,500.00	\$317.63
903 Furniture - Replace	16	1	\$34,500	\$32,344	\$10,995.00	\$216.28
904 Kitchenette - Replace	15	5	\$15,250	\$10,167	\$0.00	\$101.98
907 Wallcovering - Replace	16	9	\$232,000	\$101,500	\$0.00	\$1,454.40
909 Bathrooms - Refurbish	15	5	\$22,500	\$15,000	\$0.00	\$150.46
1110 Interior Surfaces - Repaint	8	1	\$52,500	\$45,938	\$45,937.50	\$658.24
1119 Building Exterior - Seal	15	0	\$443,750	\$443,750	\$443,750.00	\$2,967.31
1202 Pool - Resurface	12	2	\$8,250	\$6,875	\$0.00	\$68.96
1303 Comp Shingle Roof - Replace	15	12	\$27,500	\$5,500	\$0.00	\$183.89
1307 Center Membrane Roof - Replace	15	12	\$42,900	\$8,580	\$0.00	\$286.87
1307 Tower Membrane Roof - Replace	20	14	\$132,000	\$39,600	\$0.00	\$662.00
1801 Elevator - Modernize	25	21	\$660,000	\$105,600	\$0.00	\$2,648.01
1802 Elevator Cab - Remodel	15	5	\$57,000	\$38,000	\$0.00	\$381.15
1803 Access Control System - Replace	8	5	\$55,000	\$20,625	\$0.00	\$689.59
1803 Fire Alarm System - Replace	25	12	\$300,000	\$156,000	\$0.00	\$1,203.64
26 Total Funded Components				\$1,486,162	\$792,100	\$18,500

**Table 4: 30-Year Reserve Plan Summary** **9999-0 HR**

Year	Starting Reserve Balance	Fully Funded Balance	Percent Funded	Annual Reserve Contribs.	Special Assessments	Interest Income	Reserve Expenses
2006	\$792,100	\$1,486,162	53.3%	\$222,000	\$0	\$16,064	\$535,750
2007	\$494,414	\$1,168,898	42.3%	\$228,660	\$0	\$11,203	\$331,480
2008	\$402,797	\$1,058,214	38.1%	\$235,520	\$0	\$12,745	\$33,153
2009	\$617,909	\$1,257,355	49.1%	\$242,585	\$0	\$17,989	\$55,729
2010	\$822,753	\$1,445,264	56.9%	\$249,863	\$0	\$23,428	\$42,488
2011	\$1,053,557	\$1,658,677	63.5%	\$257,359	\$0	\$27,489	\$190,411
2012	\$1,147,994	\$1,732,546	66.3%	\$265,080	\$0	\$32,126	\$20,299
2013	\$1,424,901	\$1,990,452	71.6%	\$273,032	\$0	\$39,058	\$33,822
2014	\$1,703,170	\$2,248,973	75.7%	\$281,223	\$0	\$46,394	\$18,368
2015	\$2,012,419	\$2,538,176	79.3%	\$289,660	\$0	\$45,665	\$702,947
2016	\$1,644,797	\$2,138,159	76.9%	\$298,349	\$0	\$41,416	\$312,461
2017	\$1,672,102	\$2,135,778	78.3%	\$307,300	\$0	\$45,211	\$75,891
2018	\$1,948,722	\$2,384,652	81.7%	\$316,519	\$0	\$46,298	\$552,340
2019	\$1,759,199	\$2,158,139	81.5%	\$326,014	\$0	\$47,189	\$112,343
2020	\$2,020,060	\$2,386,153	84.7%	\$335,795	\$0	\$51,629	\$292,686
2021	\$2,114,798	\$2,443,623	86.5%	\$345,869	\$0	\$46,905	\$865,840
2022	\$1,641,732	\$1,921,088	85.5%	\$356,245	\$0	\$45,869	\$12,035
2023	\$2,031,811	\$2,271,177	89.5%	\$363,370	\$0	\$49,529	\$509,903
2024	\$1,934,805	\$2,128,109	90.9%	\$370,637	\$0	\$53,249	\$28,941
2025	\$2,329,750	\$2,485,560	93.7%	\$378,050	\$0	\$62,416	\$101,265
2026	\$2,668,950	\$2,788,944	95.7%	\$385,611	\$0	\$69,874	\$197,318
2027	\$2,927,118	\$3,012,488	97.2%	\$393,323	\$0	\$61,299	\$1,399,546
2028	\$1,982,194	\$2,014,737	98.4%	\$401,190	\$0	\$55,018	\$14,371
2029	\$2,424,031	\$2,424,387	100.0%	\$409,213	\$0	\$65,264	\$95,719
2030	\$2,802,789	\$2,773,457	101.1%	\$417,398	\$0	\$74,941	\$96,050
2031	\$3,199,079	\$3,143,907	101.8%	\$425,746	\$0	\$73,072	\$1,044,795
2032	\$2,653,101	\$2,559,848	103.6%	\$434,260	\$0	\$71,732	\$67,393
2033	\$3,091,700	\$2,976,923	103.9%	\$442,946	\$0	\$80,769	\$238,566
2034	\$3,376,848	\$3,242,494	104.1%	\$451,805	\$0	\$90,891	\$17,159
2035	\$3,902,384	\$3,756,741	103.9%	\$460,841	\$0	\$101,540	\$235,067

**Table 5: 30-Year Reserve Plan Detail (yrs 0 through 4)** **9999-0  
HR**

Fiscal Year	2006	2007	2008	2009	2010
Starting Reserve Balance	\$792,100	\$494,414	\$402,797	\$617,909	\$822,753
Annual Reserve Contribution	\$222,000	\$228,660	\$235,520	\$242,585	\$249,863
Planned Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$16,064	\$11,203	\$12,745	\$17,989	\$23,428
<b>Subtotal</b>	<b>\$1,030,164</b>	<b>\$734,277</b>	<b>\$651,062</b>	<b>\$878,483</b>	<b>\$1,096,045</b>
<b># Component</b>					
306 Air Handlers - Replace	\$0	\$0	\$7,426	\$0	\$0
308 Trash Compactor - Replace	\$0	\$0	\$0	\$15,298	\$0
309 Chillers - Replace	\$0	\$0	\$0	\$0	\$0
309 Chillers -Retrofit	\$0	\$0	\$0	\$21,855	\$0
310 Boilers - Refurbish	\$0	\$0	\$0	\$0	\$19,696
310 Culinary Boilers - Refurbish	\$0	\$0	\$0	\$0	\$14,350
311 Cooling Tower - Replace	\$75,000	\$0	\$0	\$0	\$0
312 Pumps & Valves - Replace	\$7,500	\$7,725	\$7,957	\$8,195	\$8,441
404 Patio Furniture - Replace	\$0	\$20,935	\$0	\$0	\$0
601 Carpet (hallways) - Replace	\$0	\$213,210	\$0	\$0	\$0
703 Intercom - Replace	\$0	\$0	\$9,018	\$0	\$0
902 Exercise Eqp -Partial Replace	\$9,500	\$0	\$0	\$10,381	\$0
903 Furniture - Replace	\$0	\$35,535	\$0	\$0	\$0
904 Kitchenette - Replace	\$0	\$0	\$0	\$0	\$0
907 Wallcovering - Replace	\$0	\$0	\$0	\$0	\$0
909 Bathrooms - Refurbish	\$0	\$0	\$0	\$0	\$0
1110 Interior Surfaces - Repaint	\$0	\$54,075	\$0	\$0	\$0
1119 Building Exterior - Seal	\$443,750	\$0	\$0	\$0	\$0
1202 Pool - Resurface	\$0	\$0	\$8,752	\$0	\$0
1303 Comp Shingle Roof - Replace	\$0	\$0	\$0	\$0	\$0
1307 Center Membrane Roof - Replace	\$0	\$0	\$0	\$0	\$0
1307 Tower Membrane Roof - Replace	\$0	\$0	\$0	\$0	\$0
1801 Elevator - Modernize	\$0	\$0	\$0	\$0	\$0
1802 Elevator Cab - Remodel	\$0	\$0	\$0	\$0	\$0
1803 Access Control System - Replace	\$0	\$0	\$0	\$0	\$0
1803 Fire Alarm System - Replace	\$0	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$535,750</b>	<b>\$331,480</b>	<b>\$33,153</b>	<b>\$55,729</b>	<b>\$42,488</b>
Ending Reserve Balance:	\$494,414	\$402,797	\$617,909	\$822,753	\$1,053,557

**Table 5: 30-Year Reserve Plan Detail (yrs 5 through 9)** **9999-0  
HR**

Fiscal Year	2011	2012	2013	2014	2015
Starting Reserve Balance	\$1,053,557	\$1,147,994	\$1,424,901	\$1,703,170	\$2,012,419
Annual Reserve Contribution	\$257,359	\$265,080	\$273,032	\$281,223	\$289,660
Planned Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$27,489	\$32,126	\$39,058	\$46,394	\$45,665
<b>Subtotal</b>	<b>\$1,338,405</b>	<b>\$1,445,200</b>	<b>\$1,736,991</b>	<b>\$2,030,787</b>	<b>\$2,347,743</b>
<b># Component</b>					
306 Air Handlers - Replace	\$8,115	\$0	\$0	\$8,867	\$0
308 Trash Compactor - Replace	\$0	\$0	\$0	\$0	\$0
309 Chillers - Replace	\$0	\$0	\$0	\$0	\$0
309 Chillers -Retrofit	\$0	\$0	\$24,597	\$0	\$0
310 Boilers - Refurbish	\$0	\$0	\$0	\$0	\$22,834
310 Culinary Boilers - Refurbish	\$0	\$0	\$0	\$0	\$16,636
311 Cooling Tower - Replace	\$0	\$0	\$0	\$0	\$0
312 Pumps & Valves - Replace	\$8,695	\$8,955	\$9,224	\$9,501	\$9,786
404 Patio Furniture - Replace	\$0	\$0	\$0	\$0	\$0
601 Carpet (hallways) - Replace	\$0	\$0	\$0	\$0	\$270,088
703 Intercom - Replace	\$0	\$0	\$0	\$0	\$0
902 Exercise Eqp -Partial Replace	\$0	\$11,343	\$0	\$0	\$12,395
903 Furniture - Replace	\$0	\$0	\$0	\$0	\$0
904 Kitchenette - Replace	\$17,679	\$0	\$0	\$0	\$0
907 Wallcovering - Replace	\$0	\$0	\$0	\$0	\$302,707
909 Bathrooms - Refurbish	\$26,084	\$0	\$0	\$0	\$0
1110 Interior Surfaces - Repaint	\$0	\$0	\$0	\$0	\$68,501
1119 Building Exterior - Seal	\$0	\$0	\$0	\$0	\$0
1202 Pool - Resurface	\$0	\$0	\$0	\$0	\$0
1303 Comp Shingle Roof - Replace	\$0	\$0	\$0	\$0	\$0
1307 Center Membrane Roof - Replace	\$0	\$0	\$0	\$0	\$0
1307 Tower Membrane Roof - Replace	\$0	\$0	\$0	\$0	\$0
1801 Elevator - Modernize	\$0	\$0	\$0	\$0	\$0
1802 Elevator Cab - Remodel	\$66,079	\$0	\$0	\$0	\$0
1803 Access Control System - Replace	\$63,760	\$0	\$0	\$0	\$0
1803 Fire Alarm System - Replace	\$0	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$190,411</b>	<b>\$20,299</b>	<b>\$33,822</b>	<b>\$18,368</b>	<b>\$702,947</b>
Ending Reserve Balance:	\$1,147,994	\$1,424,901	\$1,703,170	\$2,012,419	\$1,644,797

**Table 5: 30-Year Reserve Plan Detail (yrs 10 through 14)** **9999-0  
HR**

Fiscal Year	2016	2017	2018	2019	2020
Starting Reserve Balance	\$1,644,797	\$1,672,102	\$1,948,722	\$1,759,199	\$2,020,060
Annual Reserve Contribution	\$298,349	\$307,300	\$316,519	\$326,014	\$335,795
Planned Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$41,416	\$45,211	\$46,298	\$47,189	\$51,629
<b>Subtotal</b>	<b>\$1,984,562</b>	<b>\$2,024,612</b>	<b>\$2,311,539</b>	<b>\$2,132,403</b>	<b>\$2,407,484</b>
<b># Component</b>					
306 Air Handlers - Replace	\$0	\$9,690	\$0	\$0	\$10,588
308 Trash Compactor - Replace	\$0	\$0	\$0	\$20,559	\$0
309 Chillers - Replace	\$302,381	\$0	\$0	\$0	\$0
309 Chillers -Retrofit	\$0	\$27,685	\$0	\$0	\$0
310 Boilers - Refurbish	\$0	\$0	\$0	\$0	\$26,470
310 Culinary Boilers - Refurbish	\$0	\$0	\$0	\$0	\$19,286
311 Cooling Tower - Replace	\$0	\$0	\$0	\$0	\$0
312 Pumps & Valves - Replace	\$10,079	\$10,382	\$10,693	\$11,014	\$11,344
404 Patio Furniture - Replace	\$0	\$28,135	\$0	\$0	\$0
601 Carpet (hallways) - Replace	\$0	\$0	\$0	\$0	\$0
703 Intercom - Replace	\$0	\$0	\$0	\$0	\$12,857
902 Exercise Eqp -Partial Replace	\$0	\$0	\$13,545	\$0	\$0
903 Furniture - Replace	\$0	\$0	\$0	\$0	\$0
904 Kitchenette - Replace	\$0	\$0	\$0	\$0	\$0
907 Wallcovering - Replace	\$0	\$0	\$0	\$0	\$0
909 Bathrooms - Refurbish	\$0	\$0	\$0	\$0	\$0
1110 Interior Surfaces - Repaint	\$0	\$0	\$0	\$0	\$0
1119 Building Exterior - Seal	\$0	\$0	\$0	\$0	\$0
1202 Pool - Resurface	\$0	\$0	\$0	\$0	\$12,479
1303 Comp Shingle Roof - Replace	\$0	\$0	\$39,208	\$0	\$0
1307 Center Membrane Roof - Replace	\$0	\$0	\$61,165	\$0	\$0
1307 Tower Membrane Roof - Replace	\$0	\$0	\$0	\$0	\$199,662
1801 Elevator - Modernize	\$0	\$0	\$0	\$0	\$0
1802 Elevator Cab - Remodel	\$0	\$0	\$0	\$0	\$0
1803 Access Control System - Replace	\$0	\$0	\$0	\$80,769	\$0
1803 Fire Alarm System - Replace	\$0	\$0	\$427,728	\$0	\$0
<b>Subtotal</b>	<b>\$312,461</b>	<b>\$75,891</b>	<b>\$552,340</b>	<b>\$112,343</b>	<b>\$292,686</b>
Ending Reserve Balance:	\$1,672,102	\$1,948,722	\$1,759,199	\$2,020,060	\$2,114,798

**Table 5: 30-Year Reserve Plan Detail (yrs 15 through 19)** **9999-0  
HR**

Fiscal Year	2021	2022	2023	2024	2025
Starting Reserve Balance	\$2,114,798	\$1,641,732	\$2,031,811	\$1,934,805	\$2,329,750
Annual Reserve Contribution	\$345,869	\$356,245	\$363,370	\$370,637	\$378,050
Planned Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$46,905	\$45,869	\$49,529	\$53,249	\$62,416
<b>Subtotal</b>	<b>\$2,507,572</b>	<b>\$2,043,846</b>	<b>\$2,444,709</b>	<b>\$2,358,691</b>	<b>\$2,770,215</b>
<b># Component</b>					
306 Air Handlers - Replace	\$0	\$0	\$11,570	\$0	\$0
308 Trash Compactor - Replace	\$0	\$0	\$0	\$0	\$0
309 Chillers - Replace	\$0	\$0	\$0	\$0	\$0
309 Chillers -Retrofit	\$31,159	\$0	\$0	\$0	\$35,070
310 Boilers - Refurbish	\$0	\$0	\$0	\$0	\$30,686
310 Culinary Boilers - Refurbish	\$0	\$0	\$0	\$0	\$22,357
311 Cooling Tower - Replace	\$116,848	\$0	\$0	\$0	\$0
312 Pumps & Valves - Replace	\$11,685	\$12,035	\$12,396	\$12,768	\$13,151
404 Patio Furniture - Replace	\$0	\$0	\$0	\$0	\$0
601 Carpet (hallways) - Replace	\$0	\$0	\$342,139	\$0	\$0
703 Intercom - Replace	\$0	\$0	\$0	\$0	\$0
902 Exercise Eqp -Partial Replace	\$14,801	\$0	\$0	\$16,173	\$0
903 Furniture - Replace	\$0	\$0	\$57,023	\$0	\$0
904 Kitchenette - Replace	\$0	\$0	\$0	\$0	\$0
907 Wallcovering - Replace	\$0	\$0	\$0	\$0	\$0
909 Bathrooms - Refurbish	\$0	\$0	\$0	\$0	\$0
1110 Interior Surfaces - Repaint	\$0	\$0	\$86,775	\$0	\$0
1119 Building Exterior - Seal	\$691,348	\$0	\$0	\$0	\$0
1202 Pool - Resurface	\$0	\$0	\$0	\$0	\$0
1303 Comp Shingle Roof - Replace	\$0	\$0	\$0	\$0	\$0
1307 Center Membrane Roof - Replace	\$0	\$0	\$0	\$0	\$0
1307 Tower Membrane Roof - Replace	\$0	\$0	\$0	\$0	\$0
1801 Elevator - Modernize	\$0	\$0	\$0	\$0	\$0
1802 Elevator Cab - Remodel	\$0	\$0	\$0	\$0	\$0
1803 Access Control System - Replace	\$0	\$0	\$0	\$0	\$0
1803 Fire Alarm System - Replace	\$0	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$865,840</b>	<b>\$12,035</b>	<b>\$509,903</b>	<b>\$28,941</b>	<b>\$101,265</b>
<b>Ending Reserve Balance:</b>	<b>\$1,641,732</b>	<b>\$2,031,811</b>	<b>\$1,934,805</b>	<b>\$2,329,750</b>	<b>\$2,668,950</b>

**Table 5: 30-Year Reserve Plan Detail (yrs 20 through 24)** **9999-0  
HR**

Fiscal Year	2026	2027	2028	2029	2030
Starting Reserve Balance	\$2,668,950	\$2,927,118	\$1,982,194	\$2,424,031	\$2,802,789
Annual Reserve Contribution	\$385,611	\$393,323	\$401,190	\$409,213	\$417,398
Planned Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$69,874	\$61,299	\$55,018	\$65,264	\$74,941
<b>Subtotal</b>	<b>\$3,124,436</b>	<b>\$3,381,740</b>	<b>\$2,438,402</b>	<b>\$2,898,508</b>	<b>\$3,295,128</b>
<b># Component</b>					
306 Air Handlers - Replace	\$12,643	\$0	\$0	\$13,815	\$0
308 Trash Compactor - Replace	\$0	\$0	\$0	\$27,630	\$0
309 Chillers - Replace	\$0	\$0	\$0	\$0	\$0
309 Chillers -Retrofit	\$0	\$0	\$0	\$39,472	\$0
310 Boilers - Refurbish	\$0	\$0	\$0	\$0	\$35,574
310 Culinary Boilers - Refurbish	\$0	\$0	\$0	\$0	\$25,918
311 Cooling Tower - Replace	\$0	\$0	\$0	\$0	\$0
312 Pumps & Valves - Replace	\$13,546	\$13,952	\$14,371	\$14,802	\$15,246
404 Patio Furniture - Replace	\$0	\$37,810	\$0	\$0	\$0
601 Carpet (hallways) - Replace	\$0	\$0	\$0	\$0	\$0
703 Intercom - Replace	\$0	\$0	\$0	\$0	\$0
902 Exercise Eqp -Partial Replace	\$0	\$17,673	\$0	\$0	\$19,312
903 Furniture - Replace	\$0	\$0	\$0	\$0	\$0
904 Kitchenette - Replace	\$27,543	\$0	\$0	\$0	\$0
907 Wallcovering - Replace	\$0	\$0	\$0	\$0	\$0
909 Bathrooms - Refurbish	\$40,638	\$0	\$0	\$0	\$0
1110 Interior Surfaces - Repaint	\$0	\$0	\$0	\$0	\$0
1119 Building Exterior - Seal	\$0	\$0	\$0	\$0	\$0
1202 Pool - Resurface	\$0	\$0	\$0	\$0	\$0
1303 Comp Shingle Roof - Replace	\$0	\$0	\$0	\$0	\$0
1307 Center Membrane Roof - Replace	\$0	\$0	\$0	\$0	\$0
1307 Tower Membrane Roof - Replace	\$0	\$0	\$0	\$0	\$0
1801 Elevator - Modernize	\$0	\$1,227,794	\$0	\$0	\$0
1802 Elevator Cab - Remodel	\$102,948	\$0	\$0	\$0	\$0
1803 Access Control System - Replace	\$0	\$102,316	\$0	\$0	\$0
1803 Fire Alarm System - Replace	\$0	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$197,318</b>	<b>\$1,399,546</b>	<b>\$14,371</b>	<b>\$95,719</b>	<b>\$96,050</b>
Ending Reserve Balance:	\$2,927,118	\$1,982,194	\$2,424,031	\$2,802,789	\$3,199,079

**Table 5: 30-Year Reserve Plan Detail (yrs 25 through 29)** **9999-0  
HR**

Fiscal Year	2031	2032	2033	2034	2035
Starting Reserve Balance	\$3,199,079	\$2,653,101	\$3,091,700	\$3,376,848	\$3,902,384
Annual Reserve Contribution	\$425,746	\$434,260	\$442,946	\$451,805	\$460,841
Planned Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$73,072	\$71,732	\$80,769	\$90,891	\$101,540
<b>Subtotal</b>	<b>\$3,697,896</b>	<b>\$3,159,093</b>	<b>\$3,615,414</b>	<b>\$3,919,543</b>	<b>\$4,464,764</b>
<b># Component</b>					
306 Air Handlers - Replace	\$0	\$15,096	\$0	\$0	\$16,496
308 Trash Compactor - Replace	\$0	\$0	\$0	\$0	\$0
309 Chillers - Replace	\$0	\$0	\$0	\$0	\$0
309 Chillers -Retrofit	\$0	\$0	\$44,426	\$0	\$0
310 Boilers - Refurbish	\$0	\$0	\$0	\$0	\$41,240
310 Culinary Boilers - Refurbish	\$0	\$0	\$0	\$0	\$30,046
311 Cooling Tower - Replace	\$0	\$0	\$0	\$0	\$0
312 Pumps & Valves - Replace	\$15,703	\$16,174	\$16,660	\$17,159	\$17,674
404 Patio Furniture - Replace	\$0	\$0	\$0	\$0	\$0
601 Carpet (hallways) - Replace	\$433,412	\$0	\$0	\$0	\$0
703 Intercom - Replace	\$0	\$18,331	\$0	\$0	\$0
902 Exercise Eqp -Partial Replace	\$0	\$0	\$21,102	\$0	\$0
903 Furniture - Replace	\$0	\$0	\$0	\$0	\$0
904 Kitchenette - Replace	\$0	\$0	\$0	\$0	\$0
907 Wallcovering - Replace	\$485,756	\$0	\$0	\$0	\$0
909 Bathrooms - Refurbish	\$0	\$0	\$0	\$0	\$0
1110 Interior Surfaces - Repaint	\$109,923	\$0	\$0	\$0	\$0
1119 Building Exterior - Seal	\$0	\$0	\$0	\$0	\$0
1202 Pool - Resurface	\$0	\$17,792	\$0	\$0	\$0
1303 Comp Shingle Roof - Replace	\$0	\$0	\$61,085	\$0	\$0
1307 Center Membrane Roof - Replace	\$0	\$0	\$95,293	\$0	\$0
1307 Tower Membrane Roof - Replace	\$0	\$0	\$0	\$0	\$0
1801 Elevator - Modernize	\$0	\$0	\$0	\$0	\$0
1802 Elevator Cab - Remodel	\$0	\$0	\$0	\$0	\$0
1803 Access Control System - Replace	\$0	\$0	\$0	\$0	\$129,611
1803 Fire Alarm System - Replace	\$0	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$1,044,795</b>	<b>\$67,393</b>	<b>\$238,566</b>	<b>\$17,159</b>	<b>\$235,067</b>
Ending Reserve Balance:	\$2,653,101	\$3,091,700	\$3,376,848	\$3,902,384	\$4,229,697

## 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 we can control are measurements, which we attempt to establish within 5% accuracy. Your starting Reserve Balance and current Reserve interest earnings are also numbers that can be identified with a high degree of certainty. 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.

We have relied upon the client to provide the current (or projected) Reserve Balance, the estimated net-after-tax current rate of interest earnings, and to indicate if those earnings accrue to the Reserve Fund. In addition, we have considered the association’s representation of current and historical Reserve projects reliable, and we have considered the representations made by its vendors and suppliers to also be accurate and reliable.

Component quantities indicated in this Report were developed by Association Reserves unless otherwise noted in our “Site Inspection Notes” comments. No destructive or intrusive testing was performed, nor should the site inspection be assumed to be anything other than for budget purposes.

## Terms and Definitions

<b>BTU</b>	British Thermal Unit (a standard unit of energy)
<b>DIA</b>	Diameter
<b>GSF</b>	Gross Square Feet (area)
<b>GSY</b>	Gross Square Yards (area)
<b>HP</b>	Horsepower
<b>LF</b>	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.

$$\text{FFB} = (\text{Current Cost} \times \text{Effective Age}) / \text{Useful Life}$$

**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.

## Photographic Inventory Appendix