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## "Full" Reserve Study



### Town Center Carbondale, CO

**Report #: 33035-0**  
**For Period Beginning: January 1, 2018**  
**Expires: December 31, 2018**

**Date Prepared: September 16, 2017**



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**Hello, and welcome to your Reserve Study!**

**T**his 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.

**W**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're 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.ReserveStudy.com](http://www.ReserveStudy.com) or call us at:

303-394-9181

**ASSOCIATION  
RESERVES**  
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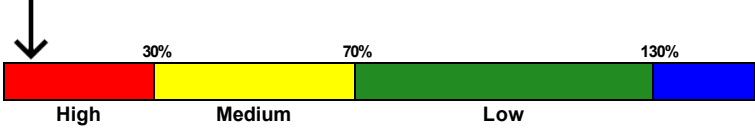
## 3- Minute Executive Summary

**Association:** Town Center **Assoc. #: 33035-0**  
**Location:** Carbondale, CO **# of Units:15**  
**Report Period:** January 1, 2018 through December 31, 2018

**Findings/Recommendations as-of: January 1, 2018**

Projected Starting Reserve Balance .....	\$11,740
Current Fully Funded Reserve Balance .....	\$232,530
Average Reserve Deficit or (Surplus) Per Unit .....	\$14,719
Percent Funded .....	5.0 %
Recommended 2018 Monthly "Fully Funding" Contributions .....	\$2,625
Alternate Monthly Minimum Contributions to Keep Reserves Above \$0 .....	\$2,500
Recommended 2018 Special Assessments for Reserves .....	\$69,300
Most Recent Monthly Reserve Contribution Rate .....	\$833

**Reserves % Funded: 5.0%**



**Special Assessment Risk:**

**Economic Assumptions:**

**Net Annual "After Tax" Interest Earnings Accruing to Reserves .....** 1.50 %  
**Annual Inflation Rate .....** 3.00 %

- This is a "Full" Reserve Study, (original, created "from scratch"), based on our site inspection on 7/20/2017.
- The Reserve Study was prepared by a credentialed Reserve Specialist (RS #260).
- Your Reserve Fund is currently 5.0 % Funded. This means the association's special assessment & deferred maintenance risk is currently High. The objective of your multi-year Funding Plan is to fund your Reserves to a level where you will enjoy a low risk of such Reserve cash flow problems.
- Based on this starting point and your anticipated future expenses, our recommendation is to budget the Monthly Reserve contributions at \$2,625 with 2.5% annual increases as well as implement a special assessment of \$69,300 in order to be within the 70% to 130% level as noted above. 100% "Full" contribution rates are designed to achieve these funding objectives by the end of our 30-year report scope.
- No assets appropriate for Reserve designation were excluded. See photo appendix for component details; the basis of our assumptions.
- We recommend that this Reserve Study be updated annually, with an on-site inspection update every three years.

## Executive Summary

33035-0

# Component	Useful Life (yrs)	Rem. Useful Life (yrs)	Current Average Cost
<b>Sites &amp; Grounds</b>			
2115 Concrete Walkways - Repair - 10%	5	3	\$950
2131 Asphalt - Seal/Repair	3	0	\$1,100
2133 Asphalt - Resurface	25	12	\$7,300
2153 Metal Handrail - Replace	30	17	\$1,250
2179 Mailboxes - Replace	30	17	\$1,450
2191 Outdoor/Site Furniture - Replace	20	7	\$4,200
<b>Building Exteriors</b>			
2305 Awning - Replace	20	0	\$1,300
2319 Concrete Patio Deck - Recoat	10	0	\$8,450
2321 Balcony Rails - Paint	5	0	\$910
2335 Courtyard Patio - Caulk/Seal	3	2	\$3,500
2335 Stone Caps - Caulk/Seal	2	0	\$1,000
2339 Stucco/EIFS - Seal/Paint	15	2	\$9,100
2343 Building Trim - Repaint	7	2	\$1,350
2361 Common Windows - Replace	30	17	\$14,950
2373 Garage Doors - Repaint	10	0	\$2,150
2375 Roof: Single Ply - Replace	20	7	\$61,350
<b>Building Interiors</b>			
2401 Interior Surface - Repaint	10	0	\$8,350
2405 Interior Lights - Replace	25	12	\$2,350
2411 Carpet - Replace	10	0	\$16,750
2419 Ceiling Panels - Replace	30	17	\$4,800
2427 Bathrooms - Remodel	25	12	\$16,000
<b>Mechanicals</b>			
2513 Hydraulic Elevator - Modernize	25	12	\$190,000
2517 Elevator Cab - Remodel	25	12	\$11,000
2535 Sump Pumps - Replace	10	0	\$5,000
2553 Fire Control Panel - Update/Replace	20	7	\$7,500
2555 Exit/Emergency Lights - Replace	25	12	\$1,950
2563 Water Heater/Tank - Replace	15	2	\$1,200
<b>27 Total Funded Components</b>			

Note 1: Yellow highlighted line items are expected to require attention in this initial year.

## Introduction



A Reserve Study is the art and science of anticipating, and preparing for, an association's 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 combination of research and well-defined computations, following consistent National Reserve Study Standard principles.

The foundation of this and every Reserve Study is your Reserve Component List (what you are reserving for). This is because the Reserve Component List defines the *scope and schedule* of all your anticipated upcoming Reserve projects. Based on that List and your starting balance, we calculate the association's Reserve Fund Strength (reported in terms of "Percent Funded"). Then we compute a Reserve Funding Plan to provide for the Reserve needs of the association. These form the three results of your Reserve Study.



Reserve contributions are not “for the future”. Reserve contributions are designed to offset the ongoing, daily deterioration of your Reserve assets. Done well, a stable, budgeted Reserve Funding Plan will collect sufficient funds from the owners who enjoyed the use of those assets, so the association is financially prepared for the irregular expenditures scattered through future years when those projects eventually require replacement.

## Methodology



For this [Full Reserve Study](#), we started 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 quantify and evaluate your common areas, creating your Reserve Component List *from scratch*.

## *Which Physical Assets are Funded by Reserves?*

There is a national-standard four-part test to determine which expenses should appear in your Reserve Component List. First, it must be a common area maintenance responsibility. Second, the component must have a limited life. Third, the remaining 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 (often between .5% and 1% of an association's total budget). This limits Reserve



RESERVE COMPONENT "FOUR-PART TEST"

Components to major, predictable expenses. Within this framework, it is inappropriate to include *lifetime* components, unpredictable expenses (such as damage due to fire, flood, or earthquake), and expenses more appropriately handled from the Operational Budget or as an insured loss.

## *How do we establish Useful Life and Remaining Useful Life estimates?*

- 1) Visual Inspection (observed wear and age)
- 2) Association Reserves database of experience
- 3) Client History (install dates & previous life cycle information)
- 4) Vendor Evaluation and Recommendation

## *How do we establish Current Repair/Replacement Cost Estimates?*

In this order...

- 1) Actual client cost history, or current proposals
- 2) Comparison to Association Reserves database of work done at similar associations
- 3) Vendor Recommendations
- 4) Reliable National Industry cost estimating guidebooks

## How much Reserves are enough?

Reserve adequacy is not measured in cash terms. Reserve adequacy is found when the *amount* of current Reserve cash is compared to Reserve component deterioration (the *needs of the association*). Having *enough* means the association can execute its projects in a timely manner with existing Reserve funds. Not having *enough* typically creates deferred maintenance or special assessments.

Adequacy is measured in a two-step process:

- 1) Calculate the *value of deterioration* at the association (called Fully Funded Balance, or FFB).
- 2) Compare that to the Reserve Fund Balance, and express as a percentage.



Each year, the *value of deterioration* at the association changes. When there is more deterioration (as components approach the time they need to be replaced), there should be more cash to offset that deterioration and prepare for the expenditure. Conversely, the *value of deterioration* shrinks after projects are accomplished. The *value of deterioration* (the FFB) changes each year, and is a moving but predictable target.

There is a high risk of special assessments and deferred maintenance when the Percent Funded is *weak*, below 30%. Approximately 30% of all associations are in this high risk range. While the 100% point is Ideal (indicating Reserve cash is equal to the *value of deterioration*), a Reserve Fund in the 70% - 130% range is considered strong (low risk of special assessment).

Measuring your Reserves by Percent Funded tells how well prepared your association is for upcoming Reserve expenses. New buyers should be very aware of this important disclosure!



## How much should we contribute?



RESERVE FUNDING PRINCIPLES

According to National Reserve Study Standards, there are four Funding Principles to balance in developing your Reserve Funding Plan. Our first objective is to design a plan that provides you with sufficient cash to perform your Reserve projects on time. Second, a stable contribution is desirable because it keeps these naturally irregular expenses from unsettling the budget.

Reserve contributions that are evenly distributed over current and future owners enable each owner to pay their fair share of the association's Reserve expenses over the years. And finally, we develop a plan that is fiscally responsible and safe for Boardmembers to recommend to their association. Remember, it is the Board's job to provide for the ongoing care of the common areas. Boardmembers invite liability exposure when Reserve contributions are inadequate to offset ongoing common area deterioration.

## What is our Recommended Funding Goal?

Maintaining the Reserve Fund at a level equal to the *value* of deterioration is called "Full Funding" (100% Funded). As each asset ages and becomes "used up," the Reserve Fund grows proportionally. **This is simple, responsible, and our recommendation.** Evidence shows that associations in the 70 - 130% range *enjoy a low risk of special assessments or deferred maintenance.*



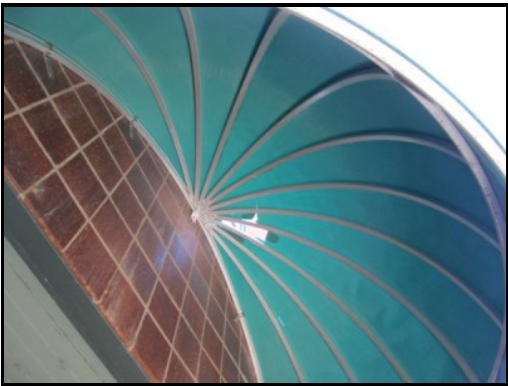
FUNDING OBJECTIVES

Allowing the Reserves to fall close to zero, but not below zero, is called Baseline Funding. Doing so allows the Reserve Fund to drop into the 0 - 30% range, where there is a high risk of special assessments & deferred maintenance. Since Baseline Funding still provides for the timely execution of all Reserve projects, and only the "margin of safety" is different, Baseline Funding contributions average only 10% - 15% less than Full Funding contributions. Threshold Funding is the title of all other Cash or Percent Funded objectives *between* Baseline Funding and Full Funding.

**Site Inspection Notes**

During our site visit on 7/20/2017 we visually inspected the common area assets and were able to see a majority of the common areas.

Please see photo appendix for component details; the basis of our assumptions.



## Projected Expenses

While this Reserve Study looks forward 30 years, we have no expectation that all these expenses will all take place as anticipated. This Reserve Study needs to be updated annually because we expect the timing of these expenses to shift and the size of these expenses to change. We do feel more certain of the timing and cost of near-term expenses than expenses many years away. Please be aware of your near-term expenses, which we are able to project more accurately than the more distant projections.

The figure below summarizes the projected future expenses at your association as defined by your Reserve Component List. A summary of these expenses are shown in the 30-yr Summary Table, while details of the projects that make up these expenses are shown in the Cash Flow Detail Table.

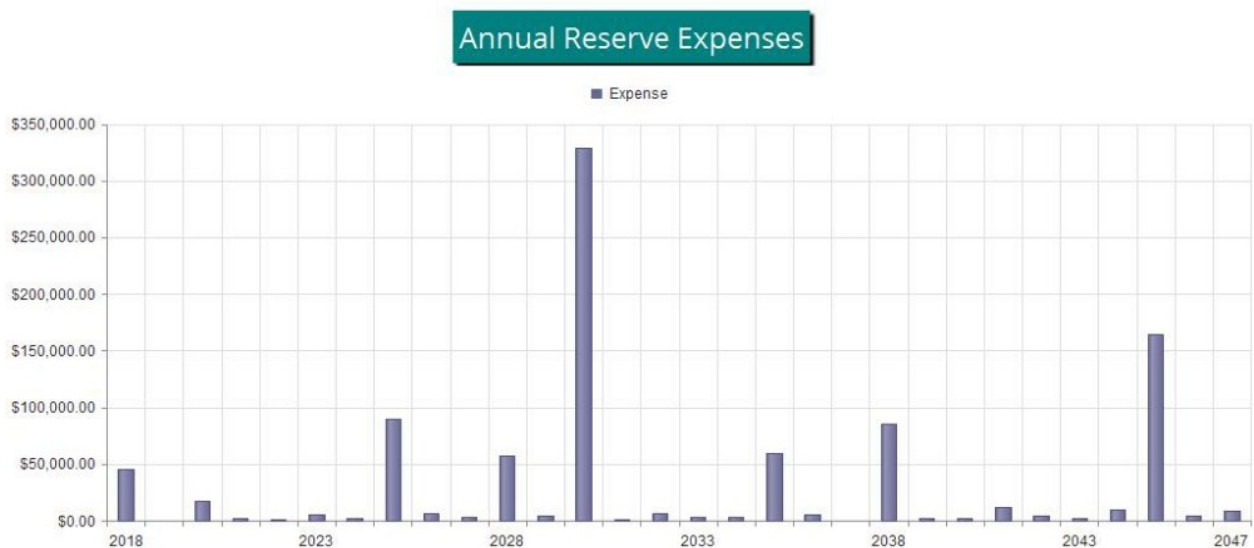


Figure 1

## Reserve Fund Status

As of 1/1/2018 your Reserve Fund balance is projected to be \$11,740 and your Fully Funded Balance is computed to be \$232,530 (see the Fully Funded Balance Table). This figure represents the deteriorated value of your common area components. Comparing your Reserve Balance to your Fully Funded Balance indicates your Reserves are 5.0 % Funded.

## Recommended Funding Plan

Based on your current Percent Funded and your near-term and long-term Reserve needs, we are recommending budgeted contributions of \$2,625 Monthly along with a one-time special assessment of \$69,300. The overall 30-yr plan, in perspective, is shown below. This same information is shown numerically in both the 30-yr Summary Table and the Cash Flow Detail Table.

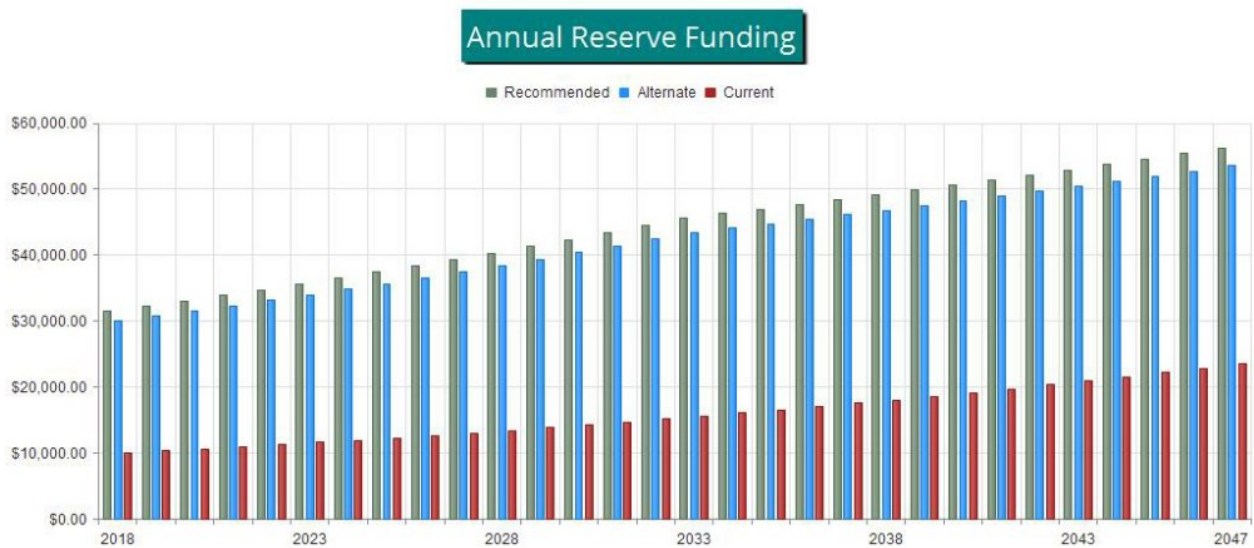


Figure 2

The following chart shows your Reserve balance under our recommended Full Funding Plan, an alternate Baseline Funding Plan, and at your current budgeted contribution rate, compared to your always-changing Fully Funded Balance target.

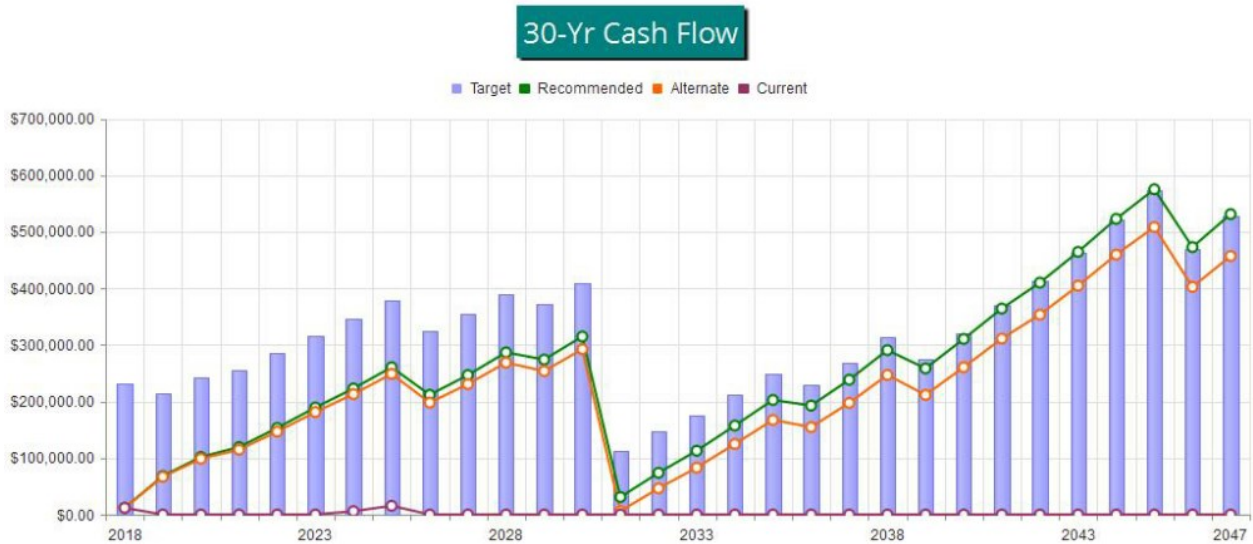


Figure 3

This figure shows the same information plotted on a Percent Funded scale. It is clear here to see how your Reserve Fund strength approaches the 100% Funded level under our recommended multi-yr Funding Plan.

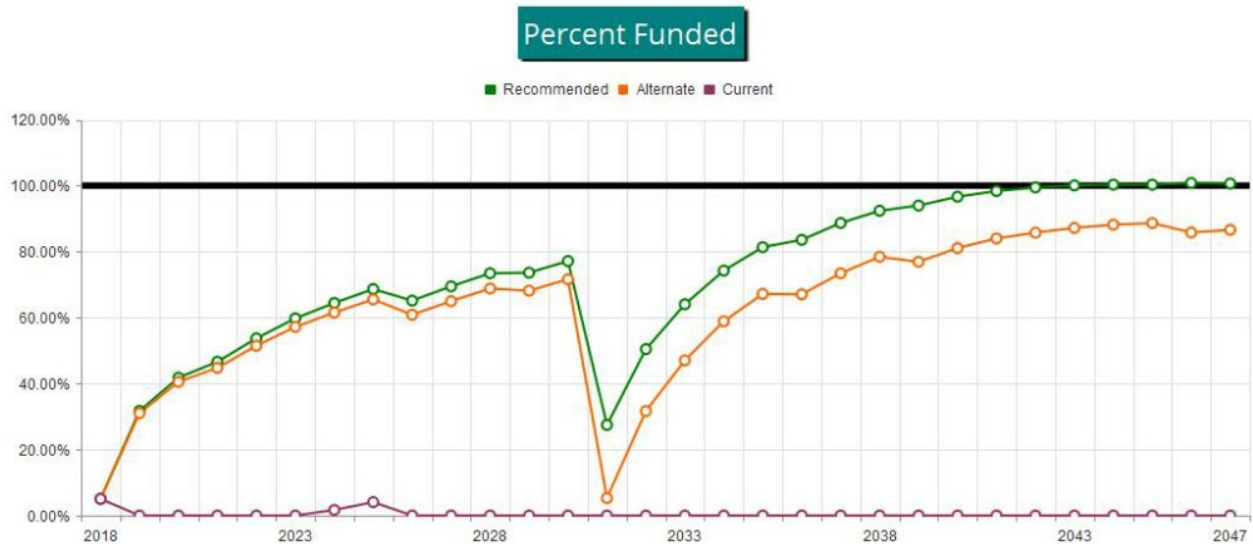


Figure 4

## **Table Descriptions**

The tabular information in this Report is broken down into nine tables, not all which may have been chosen by your Project Manager to appear in your report. Tables are listed in the order in which they appear in your Report.

Executive Summary is a summary of your Reserve Components

Budget Summary is a management and accounting tool, summarizing groupings of your Reserve Components.

Analysis Summary provides a summary of the starting financial information and your Project Manager's Financial Analysis decision points.

Component List Detail discloses key Component information, providing the foundation upon which the financial analysis is performed.

Fully Funded Balance shows the calculation of the Fully Funded Balance for each of your components, and their contributions to the association total. For each component, the Fully Funded Balance is the fraction of life used up multiplied by its estimated Current Replacement Cost.

Component Significance shows the relative significance of each component to Reserve funding needs of the association, helping you see which components have more (or less) influence than others on your total Reserve contribution rate. The deterioration cost/yr of each component is calculated by dividing the estimated Current Replacement Cost by its Useful Life, then that component's percentage of the total is displayed.

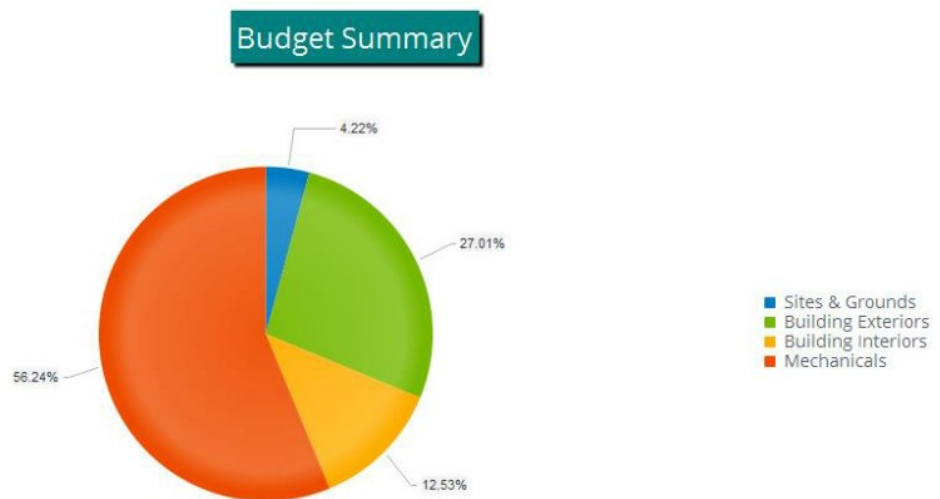
Acct/Tax Summary provides information on each Component's proportionate portion of key totals, valuable to accounting professionals primarily during tax preparation time of year.

30-Yr Summary provides a one-page 30-year summary of the cash flowing into and out of the Reserve Fund, with a display of the Fully Funded Balance, Percent Funded, and special assessment risk at the beginning of each year.

Cash Flow Detail shows the detailed income and expenses for each of the next 30 years. This table makes it possible to see which components are projected to require repair or replacement in a particular year, and the size of those individual expenses.

	Useful Life		2018 Rem. Useful Life		Estimated Replacement Cost in 2018	2018 Expenditures	01/01/2018 Current Fund Balance	01/01/2018 Fully Funded Balance	Remaining Bal. to be Funded	2018 Contributions
	Min	Max	Min	Max						
Sites & Grounds	3	30	0	17	\$16,250	\$1,100	\$1,100	\$9,176	\$15,150	\$1,726
Building Exteriors	2	30	0	17	\$104,060	\$13,810	\$4,060	\$70,183	\$100,000	\$11,027
Building Interiors	10	30	0	17	\$48,250	\$25,100	\$1,580	\$36,722	\$46,670	\$5,115
Mechanicals	10	25	0	12	\$216,650	\$5,000	\$5,000	\$116,449	\$211,650	\$13,632
					<b>\$385,210</b>	<b>\$45,010</b>	<b>\$11,740</b>	<b>\$232,530</b>	<b>\$373,470</b>	<b>\$31,500</b>

Percent Funded: 5.0%



# Reserve Component List Detail

33035-0  
Full

#	Component	Quantity	Useful Life	Rem. Useful Life	Current Cost Estimate	
					Best Case	Worst Case
<b>Sites &amp; Grounds</b>						
2115	Concrete Walkways - Repair - 10%	~ 10% of 670 GSF	5	3	\$900	\$1,000
2131	Asphalt - Seal/Repair	~ 2700 GSF	3	0	\$1,000	\$1,200
2133	Asphalt - Resurface	~ 2700 GSF	25	12	\$6,600	\$8,000
2153	Metal Handrail - Replace	~ 25 LF	30	17	\$1,000	\$1,500
2179	Mailboxes - Replace	~ (1) CBU	30	17	\$1,300	\$1,600
2191	Outdoor/Site Furniture - Replace	~ (21) Pieces	20	7	\$3,000	\$5,400
<b>Building Exteriors</b>						
2305	Awning - Replace	~ 40 GSF	20	0	\$1,200	\$1,400
2319	Concrete Patio Deck - Recoat	~ 1300 GSF	10	0	\$6,500	\$10,400
2321	Balcony Rails - Paint	~ 36 LF	5	0	\$720	\$1,100
2335	Courtyard Patio - Caulk/Seal	~ 170 LF	3	2	\$3,000	\$4,000
2335	Stone Caps - Caulk/Seal	~ 130 GSF	2	0	\$800	\$1,200
2339	Stucco/EIFS - Seal/Paint	~ 2800 GSF	15	2	\$7,000	\$11,200
2343	Building Trim - Repaint	~ 95 GSF	7	2	\$1,000	\$1,700
2361	Common Windows - Replace	~ (13) Windows	30	17	\$10,400	\$19,500
2373	Garage Doors - Repaint	~ (5) Doors, 864 GSF	10	0	\$1,700	\$2,600
2375	Roof: Single Ply - Replace	~ 3900 GSF	20	7	\$52,000	\$70,700
<b>Building Interiors</b>						
2401	Interior Surface - Repaint	~ 7900 GSF	10	0	\$7,200	\$9,500
2405	Interior Lights - Replace	~ (17) Lights	25	12	\$2,100	\$2,600
2411	Carpet - Replace	~ 280 GSY	10	0	\$14,000	\$19,500
2419	Ceiling Panels - Replace	~ 740 GSF	30	17	\$4,300	\$5,300
2427	Bathrooms - Remodel	~ (4) Bathrooms	25	12	\$12,000	\$20,000
<b>Mechanicals</b>						
2513	Hydraulic Elevator - Modernize	(1) 3-Stop Elevator	25	12	\$180,000	\$200,000
2517	Elevator Cab - Remodel	(1) Cab	25	12	\$8,000	\$14,000
2535	Sump Pumps - Replace	~ (2) Pumps	10	0	\$4,000	\$6,000
2553	Fire Control Panel - Update/Replace	~ (1) Panel	20	7	\$7,000	\$8,000
2555	Exit/Emergency Lights - Replace	~ (13) Lights	25	12	\$1,600	\$2,300
2563	Water Heater/Tank - Replace	~ (1) 40 Gallon Tank	15	2	\$1,000	\$1,400
27 Total Funded Components						



#	Component	Current Cost Estimate	X	Effective Age	/	Useful Life	=	Fully Funded Balance
<b>Sites &amp; Grounds</b>								
2115	Concrete Walkways - Repair - 10%	\$950	X	2	/	5	=	\$380
2131	Asphalt - Seal/Repair	\$1,100	X	3	/	3	=	\$1,100
2133	Asphalt - Resurface	\$7,300	X	13	/	25	=	\$3,796
2153	Metal Handrail - Replace	\$1,250	X	13	/	30	=	\$542
2179	Mailboxes - Replace	\$1,450	X	13	/	30	=	\$628
2191	Outdoor/Site Furniture - Replace	\$4,200	X	13	/	20	=	\$2,730
<b>Building Exteriors</b>								
2305	Awning - Replace	\$1,300	X	20	/	20	=	\$1,300
2319	Concrete Patio Deck - Recoat	\$8,450	X	10	/	10	=	\$8,450
2321	Balcony Rails - Paint	\$910	X	5	/	5	=	\$910
2335	Courtyard Patio - Caulk/Seal	\$3,500	X	1	/	3	=	\$1,167
2335	Stone Caps - Caulk/Seal	\$1,000	X	2	/	2	=	\$1,000
2339	Stucco/EIFS - Seal/Paint	\$9,100	X	13	/	15	=	\$7,887
2343	Building Trim - Repaint	\$1,350	X	5	/	7	=	\$964
2361	Common Windows - Replace	\$14,950	X	13	/	30	=	\$6,478
2373	Garage Doors - Repaint	\$2,150	X	10	/	10	=	\$2,150
2375	Roof: Single Ply - Replace	\$61,350	X	13	/	20	=	\$39,878
<b>Building Interiors</b>								
2401	Interior Surface - Repaint	\$8,350	X	10	/	10	=	\$8,350
2405	Interior Lights - Replace	\$2,350	X	13	/	25	=	\$1,222
2411	Carpet - Replace	\$16,750	X	10	/	10	=	\$16,750
2419	Ceiling Panels - Replace	\$4,800	X	13	/	30	=	\$2,080
2427	Bathrooms - Remodel	\$16,000	X	13	/	25	=	\$8,320
<b>Mechanicals</b>								
2513	Hydraulic Elevator - Modernize	\$190,000	X	13	/	25	=	\$98,800
2517	Elevator Cab - Remodel	\$11,000	X	13	/	25	=	\$5,720
2535	Sump Pumps - Replace	\$5,000	X	10	/	10	=	\$5,000
2553	Fire Control Panel - Update/Replace	\$7,500	X	13	/	20	=	\$4,875
2555	Exit/Emergency Lights - Replace	\$1,950	X	13	/	25	=	\$1,014
2563	Water Heater/Tank - Replace	\$1,200	X	13	/	15	=	\$1,040
								\$232,530

# Component Significance

33035-0  
Full

#	Component	Useful Life (yrs)	Current Cost Estimate	Deterioration Cost/Yr	Deterioration Significance
<b>Sites &amp; Grounds</b>					
2115	Concrete Walkways - Repair - 10%	5	\$950	\$190	0.91 %
2131	Asphalt - Seal/Repair	3	\$1,100	\$367	1.75 %
2133	Asphalt - Resurface	25	\$7,300	\$292	1.39 %
2153	Metal Handrail - Replace	30	\$1,250	\$42	0.20 %
2179	Mailboxes - Replace	30	\$1,450	\$48	0.23 %
2191	Outdoor/Site Furniture - Replace	20	\$4,200	\$210	1.00 %
<b>Building Exteriors</b>					
2305	Awning - Replace	20	\$1,300	\$65	0.31 %
2319	Concrete Patio Deck - Recoat	10	\$8,450	\$845	4.03 %
2321	Balcony Rails - Paint	5	\$910	\$182	0.87 %
2335	Courtyard Patio - Caulk/Seal	3	\$3,500	\$1,167	5.56 %
2335	Stone Caps - Caulk/Seal	2	\$1,000	\$500	2.38 %
2339	Stucco/EIFS - Seal/Paint	15	\$9,100	\$607	2.89 %
2343	Building Trim - Repaint	7	\$1,350	\$193	0.92 %
2361	Common Windows - Replace	30	\$14,950	\$498	2.38 %
2373	Garage Doors - Repaint	10	\$2,150	\$215	1.03 %
2375	Roof: Single Ply - Replace	20	\$61,350	\$3,068	14.63 %
<b>Building Interiors</b>					
2401	Interior Surface - Repaint	10	\$8,350	\$835	3.98 %
2405	Interior Lights - Replace	25	\$2,350	\$94	0.45 %
2411	Carpet - Replace	10	\$16,750	\$1,675	7.99 %
2419	Ceiling Panels - Replace	30	\$4,800	\$160	0.76 %
2427	Bathrooms - Remodel	25	\$16,000	\$640	3.05 %
<b>Mechanicals</b>					
2513	Hydraulic Elevator - Modernize	25	\$190,000	\$7,600	36.25 %
2517	Elevator Cab - Remodel	25	\$11,000	\$440	2.10 %
2535	Sump Pumps - Replace	10	\$5,000	\$500	2.38 %
2553	Fire Control Panel - Update/Replace	20	\$7,500	\$375	1.79 %
2555	Exit/Emergency Lights - Replace	25	\$1,950	\$78	0.37 %
2563	Water Heater/Tank - Replace	15	\$1,200	\$80	0.38 %
27	Total Funded Components			\$20,965	100.00 %

# 30-Year Reserve Plan Summary

33035-0  
Full

Fiscal Year Start: 2018

Interest:

1.50 %

Inflation:

3.00 %

Reserve Fund Strength Calculations: (All values of Fiscal Year Start Date)

Projected Reserve Balance Changes

Year	Starting Reserve Balance	Fully Funded Balance	Percent Funded	Special Assmt Risk	% Increase		Loan or Special Assmts	Interest Income	Reserve Expenses
					In Annual Reserve Contribs.	Reserve Contribs.			
2018	\$11,740	\$232,530	5.0 %	High	215.00 %	\$31,500	\$69,300	\$599	\$45,010
2019	\$68,129	\$214,740	31.7 %	Medium	2.50 %	\$32,288	\$0	\$1,273	\$0
2020	\$101,689	\$243,423	41.8 %	Medium	2.50 %	\$33,095	\$0	\$1,656	\$17,134
2021	\$119,306	\$255,987	46.6 %	Medium	2.50 %	\$33,922	\$0	\$2,041	\$2,240
2022	\$153,030	\$284,955	53.7 %	Medium	2.50 %	\$34,770	\$0	\$2,565	\$1,126
2023	\$189,240	\$316,649	59.8 %	Medium	2.50 %	\$35,639	\$0	\$3,089	\$5,112
2024	\$222,855	\$345,915	64.4 %	Medium	2.50 %	\$36,530	\$0	\$3,623	\$2,508
2025	\$260,501	\$379,494	68.6 %	Medium	2.50 %	\$37,444	\$0	\$3,539	\$89,842
2026	\$211,641	\$324,899	65.1 %	Medium	2.50 %	\$38,380	\$0	\$3,434	\$6,904
2027	\$246,551	\$354,889	69.5 %	Medium	2.50 %	\$39,339	\$0	\$3,997	\$3,197
2028	\$286,690	\$390,418	73.4 %	Low	2.50 %	\$40,323	\$0	\$4,202	\$57,264
2029	\$273,951	\$372,168	73.6 %	Low	2.50 %	\$41,331	\$0	\$4,413	\$4,845
2030	\$314,850	\$408,233	77.1 %	Low	2.50 %	\$42,364	\$0	\$2,591	\$328,923
2031	\$30,882	\$112,477	27.5 %	High	2.50 %	\$43,423	\$0	\$784	\$1,395
2032	\$73,694	\$146,125	50.4 %	Medium	2.50 %	\$44,509	\$0	\$1,398	\$6,807
2033	\$112,794	\$176,161	64.0 %	Medium	2.50 %	\$45,621	\$0	\$2,024	\$3,132
2034	\$157,308	\$211,862	74.3 %	Low	1.50 %	\$46,306	\$0	\$2,697	\$3,771
2035	\$202,540	\$248,985	81.3 %	Low	1.50 %	\$47,000	\$0	\$2,962	\$59,916
2036	\$192,586	\$230,433	83.6 %	Low	1.50 %	\$47,705	\$0	\$3,230	\$5,192
2037	\$238,329	\$268,759	88.7 %	Low	1.50 %	\$48,421	\$0	\$3,965	\$0
2038	\$290,715	\$314,686	92.4 %	Low	1.50 %	\$49,147	\$0	\$4,115	\$85,628
2039	\$258,350	\$274,931	94.0 %	Low	1.50 %	\$49,884	\$0	\$4,263	\$2,046
2040	\$310,451	\$321,242	96.6 %	Low	1.50 %	\$50,633	\$0	\$5,057	\$1,916
2041	\$364,224	\$370,281	98.4 %	Low	1.50 %	\$51,392	\$0	\$5,803	\$11,447
2042	\$409,972	\$412,216	99.5 %	Low	1.50 %	\$52,163	\$0	\$6,554	\$4,269
2043	\$464,420	\$464,081	100.1 %	Low	1.50 %	\$52,945	\$0	\$7,400	\$1,905
2044	\$522,860	\$521,253	100.3 %	Low	1.50 %	\$53,740	\$0	\$8,230	\$9,705
2045	\$575,125	\$573,464	100.3 %	Low	1.50 %	\$54,546	\$0	\$7,855	\$164,709
2046	\$472,817	\$468,984	100.8 %	Low	1.50 %	\$55,364	\$0	\$7,526	\$4,461
2047	\$531,245	\$527,862	100.6 %	Low	1.50 %	\$56,194	\$0	\$8,386	\$8,248

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

33035-0  
Full

Fiscal Year	2018	2019	2020	2021	2022
Starting Reserve Balance	\$11,740	\$68,129	\$101,689	\$119,306	\$153,030
Annual Reserve Contribution	\$31,500	\$32,288	\$33,095	\$33,922	\$34,770
Recommended Special Assessments	\$69,300	\$0	\$0	\$0	\$0
Interest Earnings	\$599	\$1,273	\$1,656	\$2,041	\$2,565
<b>Total Income</b>	<b>\$113,139</b>	<b>\$101,689</b>	<b>\$136,440</b>	<b>\$155,270</b>	<b>\$190,365</b>
# Component					
<b>Sites &amp; Grounds</b>					
2115 Concrete Walkways - Repair - 10%	\$0	\$0	\$0	\$1,038	\$0
2131 Asphalt - Seal/Repair	\$1,100	\$0	\$0	\$1,202	\$0
2133 Asphalt - Resurface	\$0	\$0	\$0	\$0	\$0
2153 Metal Handrail - Replace	\$0	\$0	\$0	\$0	\$0
2179 Mailboxes - Replace	\$0	\$0	\$0	\$0	\$0
2191 Outdoor/Site Furniture - Replace	\$0	\$0	\$0	\$0	\$0
<b>Building Exteriors</b>					
2305 Awning - Replace	\$1,300	\$0	\$0	\$0	\$0
2319 Concrete Patio Deck - Recoat	\$8,450	\$0	\$0	\$0	\$0
2321 Balcony Rails - Paint	\$910	\$0	\$0	\$0	\$0
2335 Courtyard Patio - Caulk/Seal	\$0	\$0	\$3,713	\$0	\$0
2335 Stone Caps - Caulk/Seal	\$1,000	\$0	\$1,061	\$0	\$1,126
2339 Stucco/EIFS - Seal/Paint	\$0	\$0	\$9,654	\$0	\$0
2343 Building Trim - Repaint	\$0	\$0	\$1,432	\$0	\$0
2361 Common Windows - Replace	\$0	\$0	\$0	\$0	\$0
2373 Garage Doors - Repaint	\$2,150	\$0	\$0	\$0	\$0
2375 Roof: Single Ply - Replace	\$0	\$0	\$0	\$0	\$0
<b>Building Interiors</b>					
2401 Interior Surface - Repaint	\$8,350	\$0	\$0	\$0	\$0
2405 Interior Lights - Replace	\$0	\$0	\$0	\$0	\$0
2411 Carpet - Replace	\$16,750	\$0	\$0	\$0	\$0
2419 Ceiling Panels - Replace	\$0	\$0	\$0	\$0	\$0
2427 Bathrooms - Remodel	\$0	\$0	\$0	\$0	\$0
<b>Mechanicals</b>					
2513 Hydraulic Elevator - Modernize	\$0	\$0	\$0	\$0	\$0
2517 Elevator Cab - Remodel	\$0	\$0	\$0	\$0	\$0
2535 Sump Pumps - Replace	\$5,000	\$0	\$0	\$0	\$0
2553 Fire Control Panel - Update/Replace	\$0	\$0	\$0	\$0	\$0
2555 Exit/Emergency Lights - Replace	\$0	\$0	\$0	\$0	\$0
2563 Water Heater/Tank - Replace	\$0	\$0	\$1,273	\$0	\$0
<b>Total Expenses</b>	<b>\$45,010</b>	<b>\$0</b>	<b>\$17,134</b>	<b>\$2,240</b>	<b>\$1,126</b>
Ending Reserve Balance	\$68,129	\$101,689	\$119,306	\$153,030	\$189,240

<b>Fiscal Year</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
Starting Reserve Balance	\$189,240	\$222,855	\$260,501	\$211,641	\$246,551
Annual Reserve Contribution	\$35,639	\$36,530	\$37,444	\$38,380	\$39,339
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$3,089	\$3,623	\$3,539	\$3,434	\$3,997
<b>Total Income</b>	<b>\$227,968</b>	<b>\$263,008</b>	<b>\$301,483</b>	<b>\$253,455</b>	<b>\$289,887</b>
# Component					
<b>Sites &amp; Grounds</b>					
2115 Concrete Walkways - Repair - 10%	\$0	\$0	\$0	\$1,203	\$0
2131 Asphalt - Seal/Repair	\$0	\$1,313	\$0	\$0	\$1,435
2133 Asphalt - Resurface	\$0	\$0	\$0	\$0	\$0
2153 Metal Handrail - Replace	\$0	\$0	\$0	\$0	\$0
2179 Mailboxes - Replace	\$0	\$0	\$0	\$0	\$0
2191 Outdoor/Site Furniture - Replace	\$0	\$0	\$5,165	\$0	\$0
<b>Building Exteriors</b>					
2305 Awning - Replace	\$0	\$0	\$0	\$0	\$0
2319 Concrete Patio Deck - Recoat	\$0	\$0	\$0	\$0	\$0
2321 Balcony Rails - Paint	\$1,055	\$0	\$0	\$0	\$0
2335 Courtyard Patio - Caulk/Seal	\$4,057	\$0	\$0	\$4,434	\$0
2335 Stone Caps - Caulk/Seal	\$0	\$1,194	\$0	\$1,267	\$0
2339 Stucco/EIFS - Seal/Paint	\$0	\$0	\$0	\$0	\$0
2343 Building Trim - Repaint	\$0	\$0	\$0	\$0	\$1,761
2361 Common Windows - Replace	\$0	\$0	\$0	\$0	\$0
2373 Garage Doors - Repaint	\$0	\$0	\$0	\$0	\$0
2375 Roof: Single Ply - Replace	\$0	\$0	\$75,453	\$0	\$0
<b>Building Interiors</b>					
2401 Interior Surface - Repaint	\$0	\$0	\$0	\$0	\$0
2405 Interior Lights - Replace	\$0	\$0	\$0	\$0	\$0
2411 Carpet - Replace	\$0	\$0	\$0	\$0	\$0
2419 Ceiling Panels - Replace	\$0	\$0	\$0	\$0	\$0
2427 Bathrooms - Remodel	\$0	\$0	\$0	\$0	\$0
<b>Mechanicals</b>					
2513 Hydraulic Elevator - Modernize	\$0	\$0	\$0	\$0	\$0
2517 Elevator Cab - Remodel	\$0	\$0	\$0	\$0	\$0
2535 Sump Pumps - Replace	\$0	\$0	\$0	\$0	\$0
2553 Fire Control Panel - Update/Replace	\$0	\$0	\$9,224	\$0	\$0
2555 Exit/Emergency Lights - Replace	\$0	\$0	\$0	\$0	\$0
2563 Water Heater/Tank - Replace	\$0	\$0	\$0	\$0	\$0
<b>Total Expenses</b>	<b>\$5,112</b>	<b>\$2,508</b>	<b>\$89,842</b>	<b>\$6,904</b>	<b>\$3,197</b>
Ending Reserve Balance	\$222,855	\$260,501	\$211,641	\$246,551	\$286,690

<b>Fiscal Year</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>	<b>2032</b>
Starting Reserve Balance	\$286,690	\$273,951	\$314,850	\$30,882	\$73,694
Annual Reserve Contribution	\$40,323	\$41,331	\$42,364	\$43,423	\$44,509
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$4,202	\$4,413	\$2,591	\$784	\$1,398
<b>Total Income</b>	<b>\$331,215</b>	<b>\$319,695</b>	<b>\$359,805</b>	<b>\$75,089</b>	<b>\$119,600</b>
# Component					
<b>Sites &amp; Grounds</b>					
2115 Concrete Walkways - Repair - 10%	\$0	\$0	\$0	\$1,395	\$0
2131 Asphalt - Seal/Repair	\$0	\$0	\$1,568	\$0	\$0
2133 Asphalt - Resurface	\$0	\$0	\$10,408	\$0	\$0
2153 Metal Handrail - Replace	\$0	\$0	\$0	\$0	\$0
2179 Mailboxes - Replace	\$0	\$0	\$0	\$0	\$0
2191 Outdoor/Site Furniture - Replace	\$0	\$0	\$0	\$0	\$0
<b>Building Exteriors</b>					
2305 Awning - Replace	\$0	\$0	\$0	\$0	\$0
2319 Concrete Patio Deck - Recoat	\$11,356	\$0	\$0	\$0	\$0
2321 Balcony Rails - Paint	\$1,223	\$0	\$0	\$0	\$0
2335 Courtyard Patio - Caulk/Seal	\$0	\$4,845	\$0	\$0	\$5,294
2335 Stone Caps - Caulk/Seal	\$1,344	\$0	\$1,426	\$0	\$1,513
2339 Stucco/EIFS - Seal/Paint	\$0	\$0	\$0	\$0	\$0
2343 Building Trim - Repaint	\$0	\$0	\$0	\$0	\$0
2361 Common Windows - Replace	\$0	\$0	\$0	\$0	\$0
2373 Garage Doors - Repaint	\$2,889	\$0	\$0	\$0	\$0
2375 Roof: Single Ply - Replace	\$0	\$0	\$0	\$0	\$0
<b>Building Interiors</b>					
2401 Interior Surface - Repaint	\$11,222	\$0	\$0	\$0	\$0
2405 Interior Lights - Replace	\$0	\$0	\$3,351	\$0	\$0
2411 Carpet - Replace	\$22,511	\$0	\$0	\$0	\$0
2419 Ceiling Panels - Replace	\$0	\$0	\$0	\$0	\$0
2427 Bathrooms - Remodel	\$0	\$0	\$22,812	\$0	\$0
<b>Mechanicals</b>					
2513 Hydraulic Elevator - Modernize	\$0	\$0	\$270,895	\$0	\$0
2517 Elevator Cab - Remodel	\$0	\$0	\$15,683	\$0	\$0
2535 Sump Pumps - Replace	\$6,720	\$0	\$0	\$0	\$0
2553 Fire Control Panel - Update/Replace	\$0	\$0	\$0	\$0	\$0
2555 Exit/Emergency Lights - Replace	\$0	\$0	\$2,780	\$0	\$0
2563 Water Heater/Tank - Replace	\$0	\$0	\$0	\$0	\$0
<b>Total Expenses</b>	<b>\$57,264</b>	<b>\$4,845</b>	<b>\$328,923</b>	<b>\$1,395</b>	<b>\$6,807</b>
Ending Reserve Balance	\$273,951	\$314,850	\$30,882	\$73,694	\$112,794

<b>Fiscal Year</b>	<b>2033</b>	<b>2034</b>	<b>2035</b>	<b>2036</b>	<b>2037</b>
Starting Reserve Balance	\$112,794	\$157,308	\$202,540	\$192,586	\$238,329
Annual Reserve Contribution	\$45,621	\$46,306	\$47,000	\$47,705	\$48,421
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$2,024	\$2,697	\$2,962	\$3,230	\$3,965
<b>Total Income</b>	<b>\$160,440</b>	<b>\$206,311</b>	<b>\$252,502</b>	<b>\$243,521</b>	<b>\$290,715</b>
# Component					
<b>Sites &amp; Grounds</b>					
2115 Concrete Walkways - Repair - 10%	\$0	\$0	\$0	\$1,617	\$0
2131 Asphalt - Seal/Repair	\$1,714	\$0	\$0	\$1,873	\$0
2133 Asphalt - Resurface	\$0	\$0	\$0	\$0	\$0
2153 Metal Handrail - Replace	\$0	\$0	\$2,066	\$0	\$0
2179 Mailboxes - Replace	\$0	\$0	\$2,397	\$0	\$0
2191 Outdoor/Site Furniture - Replace	\$0	\$0	\$0	\$0	\$0
<b>Building Exteriors</b>					
2305 Awning - Replace	\$0	\$0	\$0	\$0	\$0
2319 Concrete Patio Deck - Recoat	\$0	\$0	\$0	\$0	\$0
2321 Balcony Rails - Paint	\$1,418	\$0	\$0	\$0	\$0
2335 Courtyard Patio - Caulk/Seal	\$0	\$0	\$5,785	\$0	\$0
2335 Stone Caps - Caulk/Seal	\$0	\$1,605	\$0	\$1,702	\$0
2339 Stucco/EIFS - Seal/Paint	\$0	\$0	\$15,041	\$0	\$0
2343 Building Trim - Repaint	\$0	\$2,166	\$0	\$0	\$0
2361 Common Windows - Replace	\$0	\$0	\$24,710	\$0	\$0
2373 Garage Doors - Repaint	\$0	\$0	\$0	\$0	\$0
2375 Roof: Single Ply - Replace	\$0	\$0	\$0	\$0	\$0
<b>Building Interiors</b>					
2401 Interior Surface - Repaint	\$0	\$0	\$0	\$0	\$0
2405 Interior Lights - Replace	\$0	\$0	\$0	\$0	\$0
2411 Carpet - Replace	\$0	\$0	\$0	\$0	\$0
2419 Ceiling Panels - Replace	\$0	\$0	\$7,934	\$0	\$0
2427 Bathrooms - Remodel	\$0	\$0	\$0	\$0	\$0
<b>Mechanicals</b>					
2513 Hydraulic Elevator - Modernize	\$0	\$0	\$0	\$0	\$0
2517 Elevator Cab - Remodel	\$0	\$0	\$0	\$0	\$0
2535 Sump Pumps - Replace	\$0	\$0	\$0	\$0	\$0
2553 Fire Control Panel - Update/Replace	\$0	\$0	\$0	\$0	\$0
2555 Exit/Emergency Lights - Replace	\$0	\$0	\$0	\$0	\$0
2563 Water Heater/Tank - Replace	\$0	\$0	\$1,983	\$0	\$0
<b>Total Expenses</b>	<b>\$3,132</b>	<b>\$3,771</b>	<b>\$59,916</b>	<b>\$5,192</b>	<b>\$0</b>
Ending Reserve Balance	\$157,308	\$202,540	\$192,586	\$238,329	\$290,715

<b>Fiscal Year</b>	<b>2038</b>	<b>2039</b>	<b>2040</b>	<b>2041</b>	<b>2042</b>
Starting Reserve Balance	\$290,715	\$258,350	\$310,451	\$364,224	\$409,972
Annual Reserve Contribution	\$49,147	\$49,884	\$50,633	\$51,392	\$52,163
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$4,115	\$4,263	\$5,057	\$5,803	\$6,554
<b>Total Income</b>	<b>\$343,977</b>	<b>\$312,497</b>	<b>\$366,140</b>	<b>\$421,419</b>	<b>\$468,689</b>
# Component					
<b>Sites &amp; Grounds</b>					
2115 Concrete Walkways - Repair - 10%	\$0	\$0	\$0	\$1,875	\$0
2131 Asphalt - Seal/Repair	\$0	\$2,046	\$0	\$0	\$2,236
2133 Asphalt - Resurface	\$0	\$0	\$0	\$0	\$0
2153 Metal Handrail - Replace	\$0	\$0	\$0	\$0	\$0
2179 Mailboxes - Replace	\$0	\$0	\$0	\$0	\$0
2191 Outdoor/Site Furniture - Replace	\$0	\$0	\$0	\$0	\$0
<b>Building Exteriors</b>					
2305 Awning - Replace	\$2,348	\$0	\$0	\$0	\$0
2319 Concrete Patio Deck - Recoat	\$15,262	\$0	\$0	\$0	\$0
2321 Balcony Rails - Paint	\$1,644	\$0	\$0	\$0	\$0
2335 Courtyard Patio - Caulk/Seal	\$6,321	\$0	\$0	\$6,908	\$0
2335 Stone Caps - Caulk/Seal	\$1,806	\$0	\$1,916	\$0	\$2,033
2339 Stucco/EIFS - Seal/Paint	\$0	\$0	\$0	\$0	\$0
2343 Building Trim - Repaint	\$0	\$0	\$0	\$2,664	\$0
2361 Common Windows - Replace	\$0	\$0	\$0	\$0	\$0
2373 Garage Doors - Repaint	\$3,883	\$0	\$0	\$0	\$0
2375 Roof: Single Ply - Replace	\$0	\$0	\$0	\$0	\$0
<b>Building Interiors</b>					
2401 Interior Surface - Repaint	\$15,081	\$0	\$0	\$0	\$0
2405 Interior Lights - Replace	\$0	\$0	\$0	\$0	\$0
2411 Carpet - Replace	\$30,252	\$0	\$0	\$0	\$0
2419 Ceiling Panels - Replace	\$0	\$0	\$0	\$0	\$0
2427 Bathrooms - Remodel	\$0	\$0	\$0	\$0	\$0
<b>Mechanicals</b>					
2513 Hydraulic Elevator - Modernize	\$0	\$0	\$0	\$0	\$0
2517 Elevator Cab - Remodel	\$0	\$0	\$0	\$0	\$0
2535 Sump Pumps - Replace	\$9,031	\$0	\$0	\$0	\$0
2553 Fire Control Panel - Update/Replace	\$0	\$0	\$0	\$0	\$0
2555 Exit/Emergency Lights - Replace	\$0	\$0	\$0	\$0	\$0
2563 Water Heater/Tank - Replace	\$0	\$0	\$0	\$0	\$0
<b>Total Expenses</b>	<b>\$85,628</b>	<b>\$2,046</b>	<b>\$1,916</b>	<b>\$11,447</b>	<b>\$4,269</b>
Ending Reserve Balance	\$258,350	\$310,451	\$364,224	\$409,972	\$464,420



<b>Fiscal Year</b>	<b>2043</b>	<b>2044</b>	<b>2045</b>	<b>2046</b>	<b>2047</b>
Starting Reserve Balance	\$464,420	\$522,860	\$575,125	\$472,817	\$531,245
Annual Reserve Contribution	\$52,945	\$53,740	\$54,546	\$55,364	\$56,194
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$7,400	\$8,230	\$7,855	\$7,526	\$8,386
<b>Total Income</b>	<b>\$524,766</b>	<b>\$584,830</b>	<b>\$637,525</b>	<b>\$535,706</b>	<b>\$595,825</b>
# Component					
<b>Sites &amp; Grounds</b>					
2115 Concrete Walkways - Repair - 10%	\$0	\$0	\$0	\$2,174	\$0
2131 Asphalt - Seal/Repair	\$0	\$0	\$2,443	\$0	\$0
2133 Asphalt - Resurface	\$0	\$0	\$0	\$0	\$0
2153 Metal Handrail - Replace	\$0	\$0	\$0	\$0	\$0
2179 Mailboxes - Replace	\$0	\$0	\$0	\$0	\$0
2191 Outdoor/Site Furniture - Replace	\$0	\$0	\$9,329	\$0	\$0
<b>Building Exteriors</b>					
2305 Awning - Replace	\$0	\$0	\$0	\$0	\$0
2319 Concrete Patio Deck - Recoat	\$0	\$0	\$0	\$0	\$0
2321 Balcony Rails - Paint	\$1,905	\$0	\$0	\$0	\$0
2335 Courtyard Patio - Caulk/Seal	\$0	\$7,548	\$0	\$0	\$8,248
2335 Stone Caps - Caulk/Seal	\$0	\$2,157	\$0	\$2,288	\$0
2339 Stucco/EIFS - Seal/Paint	\$0	\$0	\$0	\$0	\$0
2343 Building Trim - Repaint	\$0	\$0	\$0	\$0	\$0
2361 Common Windows - Replace	\$0	\$0	\$0	\$0	\$0
2373 Garage Doors - Repaint	\$0	\$0	\$0	\$0	\$0
2375 Roof: Single Ply - Replace	\$0	\$0	\$136,276	\$0	\$0
<b>Building Interiors</b>					
2401 Interior Surface - Repaint	\$0	\$0	\$0	\$0	\$0
2405 Interior Lights - Replace	\$0	\$0	\$0	\$0	\$0
2411 Carpet - Replace	\$0	\$0	\$0	\$0	\$0
2419 Ceiling Panels - Replace	\$0	\$0	\$0	\$0	\$0
2427 Bathrooms - Remodel	\$0	\$0	\$0	\$0	\$0
<b>Mechanicals</b>					
2513 Hydraulic Elevator - Modernize	\$0	\$0	\$0	\$0	\$0
2517 Elevator Cab - Remodel	\$0	\$0	\$0	\$0	\$0
2535 Sump Pumps - Replace	\$0	\$0	\$0	\$0	\$0
2553 Fire Control Panel - Update/Replace	\$0	\$0	\$16,660	\$0	\$0
2555 Exit/Emergency Lights - Replace	\$0	\$0	\$0	\$0	\$0
2563 Water Heater/Tank - Replace	\$0	\$0	\$0	\$0	\$0
<b>Total Expenses</b>	<b>\$1,905</b>	<b>\$9,705</b>	<b>\$164,709</b>	<b>\$4,461</b>	<b>\$8,248</b>
Ending Reserve Balance	\$522,860	\$575,125	\$472,817	\$531,245	\$587,577

## Accuracy, Limitations, and Disclosures

Association Reserves and its employees have no ownership, management, or other business relationships with the client other than this Reserve Study engagement. Bryan Farley, R.S., president of the Colorado LLC, is a credentialed Reserve Specialist (#260). All work done by Association Reserves is performed under his Responsible Charge and is performed in accordance with National Reserve Study Standards (NRSS). There are no material issues to our knowledge that have not been disclosed to the client that would cause a distortion of the client's situation.

Per NRSS, information provided by official representative(s) of the client, vendors, and suppliers regarding financial details, component physical details and/or quantities, or historical issues/conditions will be deemed reliable, and is not intended to be used for the purpose of any type of audit, quality/forensic analysis, or background checks of historical records. As such, information provided to us has not been audited or independently verified.

Estimates for interest and inflation have been included, because including such estimates are more accurate than ignoring them completely. When we are hired to prepare Update reports, the client is considered to have deemed those previously developed component quantities as accurate and reliable, whether established by our firm or other individuals/firms (unless specifically mentioned in our Site Inspection Notes). During inspections our company standard is to establish measurements within 5% accuracy, and our scope includes visual inspection of accessible areas and components and does not include any destructive or other testing. Our work is done only for budget purposes. Uses or expectations outside our expertise and scope of work include, but are not limited to, project audit, quality inspection, and the identification of construction defects, hazardous materials, or dangerous conditions. Identifying hidden issues such as but not limited to plumbing or electrical problems are also outside our scope of work. Our estimates assume proper original installation & construction, adherence to recommended preventive maintenance, a stable economic environment, and do not consider frequency or severity of natural disasters. Our opinions of component Useful Life, Remaining Useful Life, and current or future cost estimates are not a warranty or guarantee of actual costs or timing.

Because the physical and financial status of the property, legislation, the economy, weather, owner expectations, and usage are all in a continual state of change over which we have no control, we do not expect that the events projected in this document will all occur exactly as planned. This Reserve Study is by nature a "one-year" document in need of being updated annually so that more accurate estimates can be incorporated. It is only because a long-term perspective improves the accuracy of near-term planning that this Report projects expenses into the future. We fully expect a number of adjustments will be necessary through the interim years to the cost and timing of expense projections and the funding necessary to prepare for those estimated expenses.

## 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). Equivalent to Square Feet
<b>GSY</b>	Gross Square Yards (area). Equivalent to Square Yards
<b>HP</b>	Horsepower
<b>LF</b>	Linear Feet (length)
<b>Effective Age</b>	The difference between Useful Life and Remaining Useful Life. Note that this is not necessarily equivalent to the chronological age of the component.
<b>Fully Funded Balance (FFB)</b>	The value of the deterioration of the Reserve Components. This is the fraction of life "used up" of each component multiplied by its estimated Current Replacement. While calculated for each component, it is summed together for an association total.
<b>Inflation</b>	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 the "30-yr Income/Expense Detail" table.
<b>Interest</b>	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.
<b>Percent Funded</b>	The ratio, at a particular point in time (the first day of the Fiscal Year), of the actual (or projected) Reserve Balance to the Fully Funded Balance, expressed as a percentage.
<b>Remaining Useful Life (RUL)</b>	The estimated time, in years, that a common area component can be expected to continue to serve its intended function.
<b>Useful Life (UL)</b>	The estimated time, in years, that a common area component can be expected to serve its intended function.

## Component Details

The primary purpose of the photographic appendix is to provide the reader with the basis of our funding assumptions resulting from our physical analysis and subsequent research. The photographs herein represent a wide range of elements that were observed and measured against National Reserve Study Standards to determine if they meet the criteria for reserve funding:

- 1) Common are maintenance, repair & replacement reasonability
- 2) Components must have a limited life
- 3) Life limit must be predictable
- 4) Above a minimum threshold cost (board's discretion – typically ½ to 1% of annual operating expenses).

Some components are recommended for reserve funding, while others are not. The components that meet these criteria in our judgment are shown with corresponding maintenance, repair or replacement cycles to the left of the photo (UL = Useful Life or how often the project is expected to occur, RUL = Remaining Useful Life or how many years from our reporting period) and a representative market cost range termed “Best Cost” and “Worst Cost” below the photo. There are many factors that can result in a wide variety of potential cost; we are attempting to represent a market average for budget purposes. Where there is no UL, the component is expected to be a one-time expense. Where no pricing, the component deemed inappropriate for Reserve Funding.

## Sites & Grounds

**Comp #: 2115 Concrete Walkways - Repair - 10%**

**Quantity: ~ 10% of 670 GSF**

Location: Common areas

Funded?: Yes.

History:

Evaluation: Concrete sidewalks determined to be in fair condition typically exhibit minor changes in slope and a moderate percentage of cracking and surface wear. Trip hazards may be increasing in frequency and severity and should be closely monitored to prevent further risks. Colorado is home to expansive soils. One of the causes of concrete damage in this type of soil moisture. Expansive soils tend to swell in size when wet and contract as they dry out. As the soil expands and contracts it can create enough force to cause major damage to sidewalks. Repair any trip and fall hazards immediately to ensure safety. As routine maintenance, inspect regularly, pressure wash for appearance and repair promptly as needed to prevent water penetrating into the base and causing further damage. In our experience, larger repair/replacement expenses emerge as the community ages. Although difficult to predict timing, cost and scope, we suggest a rotating funding allowance to supplement the operating/maintenance budget for periodic larger repairs. Adjust as conditions, actual expense patterns dictate within future reserve study updates.

Useful Life:  
5 years

Remaining Life:  
3 years



Best Case: \$ 900

Worst Case: \$ 1,000

Cost Source: Allowance

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**Comp #: 2131 Asphalt - Seal/Repair**

**Quantity: ~ 2700 GSF**

Location: Streets

Funded?: Yes.

History:

Evaluation: Because this has not been done in the past, we are recommending sealing the asphalt in the near future. Asphalt seal was observed to be in poor condition at the time of the inspection. The seal appeared to be weathered and faded. Exposed aggregate and a gravelly texture was noted. Plan to seal the asphalt soon. Regular cycles of seal coating (along with any needed repair) has proven to be the best program in our opinion for the long term care of lower traffic asphalt areas such as these. The primary reason to seal coat asphalt pavement is to protect the pavement from the deteriorating effects of sun and water. When asphalt pavement is exposed, the asphalt oxidizes, or hardens which causes the pavement to become more brittle. As a result, the pavement will be more likely to crack because it is unable to bend and flex when subjected to traffic and temperature changes. A seal coat combats this situation by providing a waterproof membrane, which not only slows down the oxidation process but also helps the pavement to shed water, preventing it from entering the base material. Seal coat also provides uniform appearance, concealing the inevitable patching and repairs which accumulate over time. Seal coat ultimately extends useful life of asphalt, postponing the asphalt resurfacing, which can be one of the larger cost items in this study (see component #2133 for asphalt resurfacing costs). Repair asphalt before seal coating. Surface preparation and dry weather, during and following application, is key to lasting performance. The ideal conditions are a warm, sunny day with low humidity; rain can cause major problems when seal coating and should never be done when showers are threatening. Incorporate any striping and curb repair into this project. Fill cracks and clean oil stains promptly in between cycles as routine maintenance. Prior to a seal coat application, the areas will be cleaned with push blowers and wire brooms. Be aware that sealcoat will not adhere to heavily saturated oil spots. Vendors typically recommend infrared patching on areas with saturated oil spots to ensure adherence of sealcoat.

Useful Life:  
3 years

Remaining Life:  
0 years



Best Case: \$ 1,000

Worst Case: \$ 1,200

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #: 2133 Asphalt - Resurface**

**Quantity: ~ 2700 GSF**

Location: Streets

Funded?: Yes.

History:

Evaluation: No major cracking or severe deterioration observed. Asphalt pavement determined to be in good condition typically exhibits a consistent appearance with uniform coloring and relatively smooth texture with only light to moderate signs of wear or age. If present, cracking and raveling or other signs of wear are sporadic in nature, and asphalt is still up to aesthetic standards for the development. No unusual signs of wear considering the age of the asphalt surface. Useful life below assumes regular seal coating and repairs. The lack of seal coating and repairs can greatly decrease the asphalt's useful life. Resurfacing is typically one of the larger expense items in a reserve study. When need to resurface is apparent within a couple of years, consult with geotechnical engineer for recommendations, specifications / scope of work and project oversight. As routine maintenance, keep surfaces clean and free of debris, ensure that drains are free flowing, repair cracks, and clean oil stains promptly. Assuming proactive maintenance, plan to resurface at roughly the time frame below. If regular maintenance and sealing is deferred, client may need more extensive repair and replacement projects. Funding below assumes that asphalt has adequate subgrade as well as asphalt fill depth. If fill depth is less than 2", client may need to consider a remove and replacement project which can increase costs by 50%, or more. Further resources: Pavement Surface Condition Field Rating Manual for Asphalt Pavement. <http://co-asphalt.com/resources/maintenance-and-preservation/>

Useful Life:  
25 years

Remaining Life:  
12 years



Best Case: \$ 6,600

Worst Case: \$ 8,000

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #: 2149 Metal Handrail - Repair/Paint**

**Quantity: ~ 25 LF**

Location: Common areas

Funded?: No. Paint and repair as needed using funds from the operating budget.

History:

Evaluation: No specific recommendation for funding for painting or re-coating, which is expected to be completed as needed as an Operating expense, or as part of scope of work for larger painting projects within the development.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

**Comp #: 2153 Metal Handrail - Replace**

**Quantity: ~ 25 LF**

Location: Common areas

Funded?: Yes.

History:

Evaluation: Overall good condition some minor corrosion observed at the base of the rails. Metal fencing determined to be in good physical/structural condition is stable and upright, with no signs or reports of damage or required repairs. All components and hardware appear to be in serviceable condition with no unusual or advanced signs of wear or age. Fencing is in good aesthetic condition. [FUND] In our experience, metal fencing will typically eventually break down due to a combination of sun and weather exposure, which is sometimes exacerbated by other factors such as irrigation overspray, abuse and lack of preventive maintenance. For some types of fencing, complete replacement is advisable over recoating or refinishing due to relatively short lifespan of coatings and consideration of total life-cycle cost.

Useful Life:  
30 years

Remaining Life:  
17 years



Best Case: \$ 1,000

Worst Case: \$ 1,500

Cost Source: ARI Cost Database: Similar Project Cost History



**Comp #: 2179 Mailboxes - Replace**

**Quantity: ~ (1) CBU**

Location: Mailboxes

Funded?: Yes.

History:

Evaluation: Mailbox kiosks determined to be in fair condition typically exhibit minor to moderate surface wear at this stage. All components and hardware appear to function properly, but appearance is diminishing. Inspect regularly, and clean by wiping down exterior surfaces. If necessary, change lock cylinders, lubricate hinges and repair as an Operating expense. Best to plan for total replacement at roughly the time frame below due to constant exposure, usage and wear over time. Note: USPS has a limited budget for replacement and should not be relied upon for purposes of long term planning.

Useful Life:  
30 years

Remaining Life:  
17 years



Best Case: \$ 1,300

Worst Case: \$ 1,600

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #: 2191 Outdoor/Site Furniture - Replace**

**Quantity: ~ (21) Pieces**

Location: Common areas

Funded?: Yes.

History:

Evaluation: The outdoor furniture includes fourteen chairs, two dining tables, one small dining table, two lounges, and two umbrellas. Outdoor/site furniture determined to be in poor condition typically exhibits more advanced stages of wear or physical deterioration/damage. Even if still in fair physical condition, replacement may still be warranted to replace with more modern/updated style. Inspect regularly, clean for appearance and repair as needed from general Operating funds. Cost to replace individual pieces may not meet threshold for Reserve funding. We recommend planning for regular intervals of complete replacement at the time frame indicated below, to maintain a good, consistent appearance in the common areas. Costs shown are based on replacement with comparable types unless otherwise noted.

Useful Life:  
20 years

Remaining Life:  
7 years



Best Case: \$ 3,000

Worst Case: \$ 5,400

Cost Source: ARI Cost Database: Similar Project Cost History

## Building Exteriors

**Comp #: 2304 Ext. Lights (Utility) – Replace**

**Quantity: ~ (5) Fixtures**

Location: Building exteriors

Funded?: No. Repair/replace as needed using funds from the operating budget.

History:

Evaluation: Generic utility lights are typically replaced on an as-needed basis when individual fixtures fail. Lower aesthetic priority, and do not have the same need for consistency in appearance as decorative lighting. Most often replaced as an Operating expense. No recommendation for Reserve funding at this time. However, any repair and maintenance or other related expenditures should be tracked, and this component should be re-evaluated during future Reserve Study updates based on most recent information and data available at that time. If deemed appropriate for Reserve funding, component can be included in the funding plan at that time.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

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**Comp #: 2305 Awning - Replace**

**Quantity: ~ 40 GSF**

Location: Building exteriors

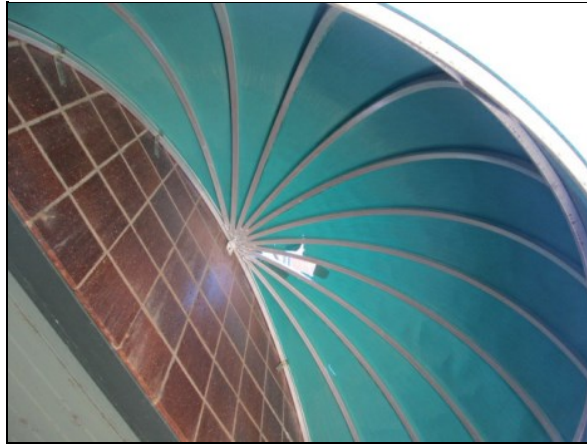
Funded?: Yes.

History:

Evaluation: Ripping and deterioration was observed. Plan to replace soon. Awnings determined to be in poor condition typically exhibit more advanced signs of age, including very noticeable or inconsistent fading colors, sagging and loose sections, and may also include damage characterized by rips, tears, or burns. Fabric/canopy should be washed periodically to maintain appearance. Framing should be repaired and usually painted to prolong life expectancy. In most cases, existing framing can be re-used when new canopy is installed. Ensure that anchor points and hardware are intact and take note of any recommendations for removal during high winds or storms to prevent damage to the building structure.

Useful Life:  
20 years

Remaining Life:  
0 years



Best Case: \$ 1,200

Worst Case: \$ 1,400

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #: 2319 Concrete Balcony Decks - Recoat**

**Quantity: ~ 500 GSF**

Location: Building exteriors

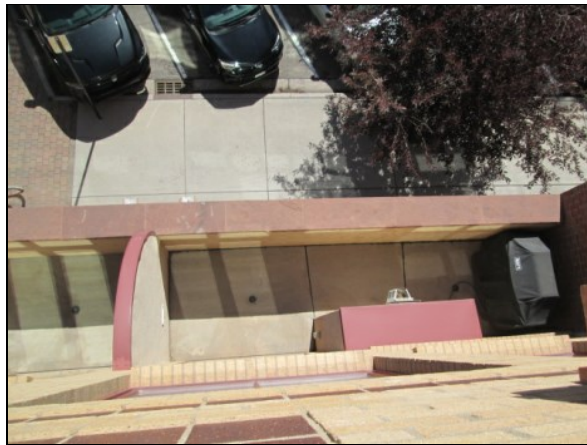
Funded?: No. Homeowner's responsibility

History:

Evaluation: Based on information provided to us during this engagement, individual owners are believed to be responsible for maintaining, repairing and replacing/resurfacing balcony deck surface at their units. However, our review is not intended to be a professional legal opinion and we reserve the right to revise this component if the Association is otherwise found to be responsible for maintenance/repair/replacement. No recommendation for Reserve funding at this time. However, the Association should still specify approved finishes and ensure that installation is done properly so as not to compromise the building structure through poor workmanship or inappropriate materials.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

**Comp #: 2319 Concrete Patio Deck - Recoat**

**Quantity: ~ 1300 GSF**

Location: Building exteriors

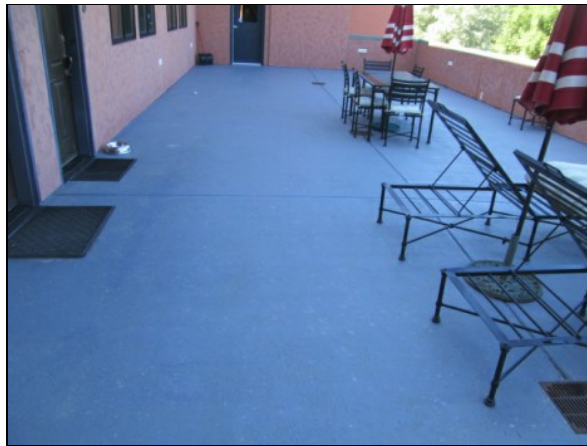
Funded?: Yes.

History:

Evaluation: The concrete patio deck appeared to have a urethane coating. However the urethane coating was observed to be poor condition and needs to be re-coated. This is located where the patio furniture is. Surface appearance was of that of a resin coating. Generally speaking, decking surfaces should have as few penetrations as possible in order to minimize water intrusion. Moisture intrusion is the most common source of degradation on concrete decks and patios. Water intrusion will cause the embedded rebar to corrode and spall the concrete. This issue can become especially pronounced on horizontal concrete surfaces where liquids may pool and further penetrate the substrate. Building design should always be the primary defense against moisture inclusion. Moderately graded surfaces allow water to flow toward other water management systems. A coating system cannot correct initial design flaws. Sources of moisture intrusion should be addressed prior to applying any coatings. Water-repellents will be very helpful. These products will help water to sit on top of the surface instead of penetrating. These products may be comprised of a variety of resins such as acrylics, urethanes, siloxanes, and rubber. Product durability will vary between manufacturers. When considering a coating, reapplication should be a point of consideration. Acrylics often do not have long service lives, but can be reapplied easily (without blasting or abrading the surface). When applying all these products, be aware that products with a high sheen will be more slippery. Finding the balance between durability, ease of application, and reapplication, is key to selecting the proper coating for horizontal concrete. Sub-surface evaluation including moisture testing is outside the scope of this Reserve Study engagement. The association should consult with a decking or waterproofing contractor when evaluating scope of work in order to properly define any necessary structural repairs/restoration. Funding recommendations shown here should be updated based on any new analysis/information provided by more comprehensive evaluations.

Useful Life:  
10 years

Remaining Life:  
0 years



Best Case: \$ 6,500

Worst Case: \$ 10,400

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #: 2321 Balcony Rails - Paint**

**Quantity: ~ 36 LF**

Location: Balconies

Funded?: Yes.

History:

Evaluation: Balcony railing finishes determined to be in fair condition typically exhibit minor to moderate wear, with faded but consistent color. Coating is generally intact but may be beginning to peel or flake in sections. Railings should be painted/re-coated at the approximate interval shown below in order to restore good appearance and protect the railings from excessive surface wear. If railing is exposed to the elements without adequate coating for an extended period of time, useful life may be severely reduced. Best practice is to coordinate with other exterior projects when possible, such as deck re-coating or exterior painting.

Useful Life:  
5 years

Remaining Life:  
0 years



Best Case: \$ 720

Worst Case: \$ 1,100

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #: 2323 Balcony Rails - Replace**

**Quantity: ~ 36 LF**

Location: Balconies

Funded?: No. Homeowner's responsibility.

History:

Evaluation: Based on information provided to us during this engagement, individual owners are believed to be responsible for replacing balcony rails at their units. However, our review is not intended to be a professional legal opinion and we reserve the right to revise this component if the Association is otherwise found to be responsible for maintenance/repair/replacement. No recommendation for Reserve funding at this time. However, the Association should still specify approved finishes and ensure that installation is done properly so as not to compromise the building structure through poor workmanship or inappropriate materials.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

**Comp #: 2335 Courtyard Patio - Caulk/Seal**

**Quantity: ~ 170 LF**

Location: Common areas

Funded?: Yes.

History: Completed in 2017

Evaluation: Reportedly every three years the client will caulk and fix the joints where the concrete patio courtyard deck meets the stucco. Concrete exteriors should be pressure-washed and sealed with a waterproofing sealer to preserve appearance of the building exterior and help prevent water intrusion into the wall surface. Proper sealant/caulking is critical to preventing water intrusion and resulting damage to the building structure. Incorrect installations of sealant are common, and can greatly decrease its useful life. Inspect sealant, more frequently as it ages, to determine if it is failing. Typical sealant problems include failure of sealant to adhere to adjacent materials and tearing/splitting of the sealant itself. As sealants age and are exposure to ultra-violet sunlight, they will dry out, harden, and lose their elastic ability. Remove and replace sealant as signs of failure begin to appear. Proper cleaning, prep work, and proper installation are critical for a long lasting sealant/caulking. Do not install sealant in locations that would block water drainage from behind the siding. Repair areas as needed prior to project. For best results, the association may want to consult with a building envelope specialist or waterproofing contractor to specify types of materials to be used and define complete scope of work before bidding. Best practice is to coordinate this type of work with other projects whenever practical, such as balcony sealing, planter waterproofing, etc. Water intrusion to the concrete structure can cause significant spalling and damage which can compromise the structure of the building if not corrected. Most buildings with structural concrete will experience some level of deterioration and spalling on an ongoing basis. Proper painting/waterproofing is essential to preventing and limiting the spread of damage. Without further inspection, the extent and severity of damage is fairly unpredictable, and therefore cost estimates for restoration can vary greatly. Our inspection is visual only and is not intended to be comprehensive or forensic in nature. We strongly recommend having the building inspected by a qualified engineer to properly identify and quantify all damaged and deteriorated areas in need of repair. All structural elements should be inspected (as applicable), including but not limited to the following: exterior walls, elevated balcony/walkway decks, window and door thresholds, overhead slabs, planters, columns, beams, pool decks, garage structures, etc. If more comprehensive evaluations are performed, the resulting recommendations should be incorporated into future Reserve Study updates. An allowance for restoration is recommended here based on our experience working with other properties.

Useful Life:  
3 years

Remaining Life:  
2 years



Best Case: \$ 3,000

Worst Case: \$ 4,000

Cost Source: Estimate Provided by Client

**Comp #: 2335 Stone Caps - Caulk/Seal**

**Quantity: ~ 130 GSF**

Location: Common areas

Funded?: Yes.

History: Project will be completed in 2018

Evaluation: Reportedly the HOA will be repairing the stone caps and adding flashing in order to save the building structure from water infiltration. Reported that this project will occur every three years. Concrete exteriors should be pressure-washed and sealed with a waterproofing sealer to preserve appearance of the building exterior and help prevent water intrusion into the wall surface. Proper sealant/caulking is critical to preventing water intrusion and resulting damage to the building structure. Incorrect installations of sealant are common, and can greatly decrease its useful life. Inspect sealant, more frequently as it ages, to determine if it is failing. Typical sealant problems include failure of sealant to adhere to adjacent materials and tearing/splitting of the sealant itself. As sealants age and are exposure to ultra-violet sunlight, they will dry out, harden, and lose their elastic ability. Remove and replace sealant as signs of failure begin to appear. Proper cleaning, prep work, and proper installation are critical for a long lasting sealant/caulking. Do not install sealant in locations that would block water drainage from behind the siding. Repair areas as needed prior to project. For best results, the association may want to consult with a building envelope specialist or waterproofing contractor to specify types of materials to be used and define complete scope of work before bidding. Best practice is to coordinate this type of work with other projects whenever practical, such as balcony sealing, planter waterproofing, etc. Water intrusion to the concrete structure can cause significant spalling and damage which can compromise the structure of the building if not corrected. Most buildings with structural concrete will experience some level of deterioration and spalling on an ongoing basis. Proper painting/waterproofing is essential to preventing and limiting the spread of damage. Without further inspection, the extent and severity of damage is fairly unpredictable, and therefore cost estimates for restoration can vary greatly. Our inspection is visual only and is not intended to be comprehensive or forensic in nature. We strongly recommend having the building inspected by a qualified engineer to properly identify and quantify all damaged and deteriorated areas in need of repair. All structural elements should be inspected (as applicable), including but not limited to the following: exterior walls, elevated balcony/walkway decks, window and door thresholds, overhead slabs, planters, columns, beams, pool decks, garage structures, etc. If more comprehensive evaluations are performed, the resulting recommendations should be incorporated into future Reserve Study updates. An allowance for restoration is recommended here based on our experience working with other properties.

Useful Life:  
2 years

Remaining Life:  
0 years



Best Case: \$ 800

Worst Case: \$ 1,200

Cost Source: Estimate Provided by Client

**Comp #: 2339 Stucco/EIFS - Seal/Paint**

**Quantity: ~ 2800 GSF**

Location: Building Exteriors

Funded?: Yes.

History:

Evaluation: Painted exterior surfaces determined to be in fair condition typically exhibit some minor to moderate signs of wear and age such as chalking, peeling, blistering, etc. Problems tend to develop in more exposed areas first. Hairline cracks may be present at this stage. Overall appearance is satisfactory. Minor hairline cracks in the stucco were noted. Minor cracking is expected in stucco. The sealant material is unknown. Stucco is a relatively low maintenance material, although sealants require more maintenance. As annual maintenance, inspect stucco and sealants for any visible problems. Replacing sealants is an important part of maintaining stucco's waterproofing. Sealants are typically located at the intersections of the stucco and other material such as windows, door and vents. We have assumed the sealants are silicone, which under good conditions may have a useful life of approximately 15 to 20 years. Urethane sealants would have a useful life of 8-12 years. At time of sealant replacement we recommend recoating the stucco to minimize water penetration and for appearance. Stucco can be recoated to help limited the amount of water penetrating into the stucco. There are three general options for recoating stucco. The least expensive option is applying a new acrylic topcoat, the second option is coating with an elastomeric finish, preferably permeable (~50% more expensive than acrylic) and a third option is a skim coat of stucco (about three times as expensive as acrylic). Generally the more expensive option has the longest useful life, and the least expensive has the shortest useful life. Additional information on Stucco is available at the Portland Cement Association's website <http://www.cement.org/stucco/index.asp> Stucco is not an impermeable material and allows moisture to penetrate the surface, become captured by the water resistive barrier (WRB) beneath (typically Tyvek, felt or similar material), and either evaporate back through to the exterior or drain down and out the base of the wall assembly through a weep screed. Typically north facing sides will typically retain more moisture, which could cause a quicker rate of deterioration.

Useful Life:  
15 years

Remaining Life:  
2 years



Best Case: \$ 7,000

Worst Case: \$ 11,200

Cost Source: ARI Cost Database: Similar Project Cost History



**Comp #: 2343 Building Trim - Repaint**

**Quantity: ~ 95 GSF**

Location: Building exteriors

Funded?: Yes.

History:

Evaluation: There was a small amount of trim located at the top of the building. This should be painted and repaired in order to mitigate any sort of heavy fading or weathering. Building trim sections determined to be in fair condition typically exhibit some color fading and inconsistency, with minor, isolated locations showing more advanced surface wear, cracking, splintering, etc. Trim sections such as eaves, soffits, fascia, and window/door frames should be painted at the approximate interval shown below to preserve/restore appearance and protect the material from deterioration caused by sun and weather exposure. Ideal practice is to coordinate with other exterior painting or waterproofing projects.

Useful Life:  
7 years

Remaining Life:  
2 years



Best Case: \$ 1,000

Worst Case: \$ 1,700

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #: 2345 Brick Siding - Tuck Point**

**Quantity: ~ 4000 GSF**

Location: Building exteriors

Funded?: No. Outside the scope of this reserve study

History:

Evaluation: Brick or other masonry siding is typically a low maintenance surface that requires minimal, infrequent repair. However, in some cases (usually after several decades or more), the original mortar between bricks may require repointing to restore appearance and adequately protect against water intrusion. Repointing involves raking out a portion of the existing mortar and installing new mortar and continuing on until all affected sections have been replaced. In our experience, there is not a well-defined predictable timeline for repointing work, usually making this project inappropriate for Reserve funding. If re-pointing is a concern, we strongly recommend further inspection by a qualified engineer and/or masonry specialist to diagnose existing conditions and recommend a scope of work. If warranted, the Reserve Study can be adjusted to include funding recommendations going forward.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

**Comp #: 2361 Common Windows - Replace**

**Quantity: ~ (13) Windows**

Location: Building exteriors

Funded?: Yes.

History:

Evaluation: Windows included both operational and nonoperational windows. The frames appeared to be aluminum. No problems were observed at the time of the inspection. Windows determined to be in good condition typically exhibit only minor, routine signs of wear and age. Frames appear to be intact with no significant pitting or other surface wear. All moving parts appear to be functional, and glass appears to be clear and free from damage. Inspect regularly, including sealant, if any, and repair as needed. Proper sealant/caulking is critical to keeping water out of the walls, and preventing water damage. With ordinary care and maintenance, useful life is long but difficult to predict. Many factors affect useful life including quality of window installed, waterproofing flashing details, exposure to wind driven rain. In many cases, windows are replaced on an ongoing basis to select areas as-needed rather than to an entire building at one time. This component should be re-evaluated as the building ages and more problems develop, and funding recommendations should be adjusted accordingly. An allowance for partial replacements may be warranted if certain windows are more deteriorated than others. Consult with vendors to ensure replacement windows are compliant with all applicable building codes. Note: there are many types of windows available in today's market and costs can vary greatly.

Useful Life:  
30 years

Remaining Life:  
17 years



Best Case: \$ 10,400

Worst Case: \$ 19,500

Cost Source: ARI Cost Database: Similar Project Cost History

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**Comp #: 2373 Garage Doors - Repaint**

**Quantity: ~ (5) Doors, 864 GSF**

Location: Common areas

Funded?: Yes.

History:

Evaluation: Reportedly there are plans for painting the garage doors. [The painted surface of the doors appeared in fair condition with minimal peeling and blistering of the painted observed. Regular uniform, professional paint or sealer applications are recommended for appearance, protection of wood and maximum design life. Repair as needed and clean prior to application. Plan for regular applications as shown below.

Useful Life:  
10 years

Remaining Life:  
0 years



Best Case: \$ 1,700

Worst Case: \$ 2,600

Cost Source: ARI Cost Database: Similar Project Cost History

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**Comp #: 2375 Roof: Single Ply - Replace**

**Quantity: ~ 3900 GSF**

Location: Building exteriors

Funded?: Yes.

History:

Evaluation: Roof appeared to be a TPO/PVC material. Single ply roofs determined to be in fair condition and exhibit more moderate signs of wear and deterioration to the membrane. Wrinkling/blistering may be evident at this stage, as well as buildup of organic growth. Overall believed to be aging normally. Our inspection is limited to a visual evaluation of accessible areas and is not a substitute for a comprehensive inspection including destructive testing, sub-surface moisture evaluation, core sampling, etc. Typical useful life of a flat (AKA "low-slope") roof is 15-20 years depending on the quality of the roof system installed and the maintenance receives throughout its life. As routine maintenance, many manufacturers recommend professional inspections at least twice annually and after storms. Promptly repair any damaged sections or any other repairs needed to ensure waterproof integrity of roof. Keep scuppers, drains, gutters, and downspouts clear and free of debris to allow proper drainage and prevent the ponding of water on the roof surface. We recommend using walk pads or extra roofing material to provide pathways in high-traffic areas, such as around HVAC units or other equipment. Take care to minimize any penetrations in the roof system, and to properly waterproof and all drains, vent pipes, conduit penetrations, etc. For more information, we recommend consulting with independent roofing consultants or with organizations such as the Roof Consultant Institute <http://www.rci-online.org/> and the National Roofing Contractors Association (NRCA) <http://www.nrca.net/>. If the roof has a warranty, be sure to review terms and conduct proper inspections/repairs as needed to keep warranty in force.

Useful Life:  
20 years

Remaining Life:  
7 years



Best Case: \$ 52,000

Worst Case: \$ 70,700

Cost Source: ARI Cost Database: Similar Project Cost History

## Building Interiors

**Comp #: 2401 Interior Surface - Repaint**

**Quantity: ~ 7900 GSF**

Location: Building interiors

Funded?: Yes.

History:

Evaluation: Some minor scuffing was observed specifically in the stairwells. Plan to paint soon. It is normal to recommend that painting the walls be cycled with the carpet replacement, however the carpeting was in poor condition and the walls were in fair condition, we are recommending replacement of the carpet now and then again at the next cycle of wall painting. Interior areas determined to be in fair condition typically exhibit some minor, routine marks and scuffs, small sections of peeling paint, etc. Overall appearance is satisfactory. Regular cycles of professional painting are recommended to maintain appearance. Small touch-up projects can be conducted as needed as a maintenance expense, but comprehensive painting of interior areas will restore a consistent look and quality to all areas. Best practice is to coordinate at same time as other interior projects (flooring, furnishings, lighting, etc.) whenever possible to minimize downtime and maintain consistent quality standard.

Useful Life:  
10 years

Remaining Life:  
0 years



Best Case: \$ 7,200

Worst Case: \$ 9,500

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #: 2405 Interior Lights - Replace**

**Quantity: ~ (17) Lights**

Location: Building interiors

Funded?: Yes.

History:

Evaluation: Interior wall lights were noted to be in good condition with no significant damage/deterioration observed or reported to us. As routine maintenance, inspect, repair and change bulbs as needed. Best practice is to coordinate at same time as other interior projects (especially painting) whenever possible to minimize downtime and maintain consistent quality standard. Timing of replacements is ultimately subjective. Estimates shown here are based on our experience with similar properties and general aesthetic qualities. A wide variety of fixture styles is available; funding recommendations are based on replacement with comparable quality fixtures.

Useful Life:  
25 years

Remaining Life:  
12 years



Best Case: \$ 2,100

Worst Case: \$ 2,600

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #: 2411 Carpet - Replace**

**Quantity: ~ 280 GSY**

Location: Building interiors

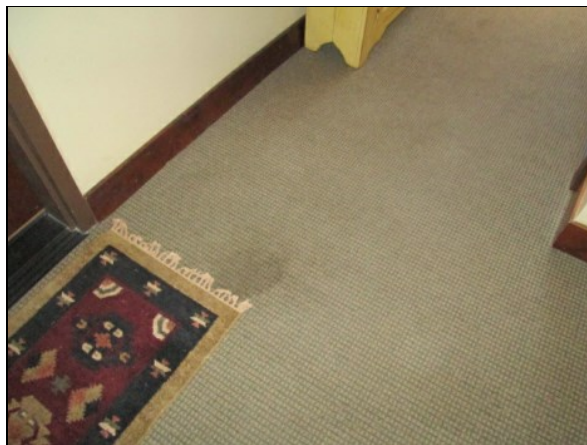
Funded?: Yes.

History:

Evaluation: Carpeted surfaces were determined to be in poor condition. Evidence of staining, matting, and loose seams noted. Expect the need to replace the carpeting soon based upon the aesthetics of the building. As part of ongoing maintenance program, vacuum regularly and professionally clean as needed. Best practice is to coordinate at same time as other interior projects whenever possible to minimize downtime and maintain consistent quality standard. Timing and interval is somewhat subjective, but not as flexible as other flooring finishes (tile, wood, etc.). Estimates shown here are based on our experience with similar properties and general aesthetic qualities. Schedule can be updated/adjusted at the discretion of the association for planning purposes.

Useful Life:  
10 years

Remaining Life:  
0 years



Best Case: \$ 14,000

Worst Case: \$ 19,500

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #: 2419 Ceiling Panels - Replace**

**Quantity: ~ 740 GSF**

Location: Building interiors

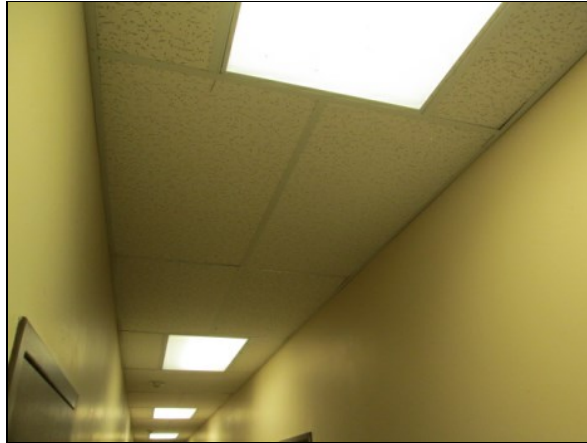
Funded?: Yes.

History:

Evaluation: Ceiling tiles were determined to be in good condition. Tiles did not exhibit any un-even or broken sections. No evidence of deterioration or broken tiles. Suspended ceiling systems can have an indefinite useful life in most applications, but replacement may be warranted due to staining, rusting of the framework, etc. Individual panels can be replaced as needed as an Operating expense, but plan on complete replacement at the approximate interval shown below in order to maintain good aesthetic standards in the common areas. Best practice is to coordinate this work with other interior finish projects (painting, flooring, etc.) in order to maintain consistency.

Useful Life:  
30 years

Remaining Life:  
17 years



Best Case: \$ 4,300

Worst Case: \$ 5,300

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #: 2425 Furnishings and Décor - Update**

**Quantity: ~ (9) Pieces**

Location: Interiors

Funded?: No. Repair/replace using funds from the operating budget.

History:

Evaluation: The furniture and artwork included two benches, two tables and five pieces of artwork. In general, costs related to this component are expected to be included in the Association's Operating budget. No recommendation for Reserve funding at this time. However, any repair and maintenance or other related expenditures should be tracked, and this component should be re-evaluated during future Reserve Study updates based on most recent information and data available at that time. If deemed appropriate for Reserve funding, component can be included in the funding plan at that time.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

**Comp #: 2427 Bathrooms - Remodel**

**Quantity: ~ (4) Bathrooms**

Location: Building interiors

Funded?: Yes.

History:

Evaluation: The property has a total of four public bathrooms. Two of the bathrooms were single, one toilet and one sink. The other two bathrooms included two toilets and two sinks. All of the bathrooms included tile flooring and partial tile walls. Bathrooms were determined to be in good condition. Flooring did not exhibit any un-even or broken sections. Fixtures appeared to be in good condition. As routine maintenance, inspect regularly and perform any needed repairs promptly utilizing general Operating funds. Typical remodeling project can include some or all of the following: replacement of plumbing fixtures, partitions, countertops, lighting, flooring, ventilation fans, accessories, décor, etc. Best practice is to coordinate this type of project with other areas whenever possible. Schedule and cost estimates should be re-evaluated during future Reserve Study updates and adjusted as needed based on the association's good judgment.

Useful Life:  
25 years

Remaining Life:  
12 years



Best Case: \$ 12,000

Worst Case: \$ 20,000

Cost Source: ARI Cost Database: Similar Project Cost History

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## Mechanicals

**Comp #: 2513 Hydraulic Elevator - Modernize**

**Quantity: (1) 3-Stop Elevator**

Location: Mechanical room

Funded?: Yes.

History:

Evaluation: Elevators should be inspected regularly and tested as a preventive maintenance expense. This modernization project typically includes replacement/upgrade of controller(s), mechanical door components, push-button fixtures, and includes additional allowances for electrical work or fire alarm work by others, code-required changes, etc. Elevator vendors typically recommend modernization cycles of approximately 25 years for continued smooth, safe operation, technology advances and/or code changes. In our experience, actual interval is typically 20-30 years or sometimes longer, depending on level of use, maintenance, availability of replacement parts, etc. When remaining useful life is below 5 years, we recommend beginning discussions with your elevator vendor to determine the most cost effective specifications and approach to a modernization project. Modernization should be anticipated and planned for, as lead time for required parts can be months-long if done on short notice. To minimize elevator downtime, schedule the project ahead of time and consult with elevator vendor for more information. Some properties opt to hire an elevator consultant to draft a scope of work and oversee the process of obtaining estimates, and installation for compliance. Costs shown here may need to be re-evaluated depending on unpredictable electrical or fire safety code changes and should be monitored during future Reserve Study updates.

Useful Life:  
25 years

Remaining Life:  
12 years



Best Case: \$ 180,000

Worst Case: \$ 200,000

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #: 2517 Elevator Cab – Remodel**

**Quantity: (1) Cab**

Location: Common areas

Funded?: Yes.

History:

Evaluation: Elevator cabs determined to be in good condition typically exhibit, clean, intact finishes and fixtures with no significant wear or abuse, vandalism, etc. Flooring, wall paneling and lighting are of a design quality appropriate for the standard of the community. This component recommends budgeting for periodic remodeling of the elevator cab interior(s) to ensure good physical condition and maintain aesthetic standards of the property. Timing of this elective project is ultimately at the discretion of the client, but ideally should be coordinated with mechanical modernization to minimize downtime. Cost can vary greatly depending upon chosen design, and our estimates assume remodeling to a similar standard as currently in place. If higher quality standards are being considered, increases may need to be incorporated into future updates. A general allowance based upon our experience and consultation with elevator vendors is shown below for budgeting purposes, but any new information or cost estimates should be incorporated into future Reserve Study updates when known. Note: if present, any service-only cabs are not expected to be a significant aesthetic priority and are not included here unless otherwise noted.

Useful Life:  
25 years

Remaining Life:  
12 years



Best Case: \$ 8,000

Worst Case: \$ 14,000

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #: 2535 Sump Pumps - Replace**

**Quantity: ~ (2) Pumps**

Location: Mechanical room

Funded?: Yes.

History: Original

Evaluation: No access to see pumps closely. Costs based on input from building/management staff and/or experience with similar installations. Sump pump systems can have a highly variable life expectancy depending on level of use. Should be inspected regularly and repaired as-needed by servicing vendor or maintenance staff to ensure proper function and optimal performance.

Useful Life:  
10 years

Remaining Life:  
0 years



Best Case: \$ 4,000

Worst Case: \$ 6,000

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #: 2553 Fire Control Panel - Update/Replace**

**Quantity: ~ (1) Panel**

Location: Mechanical room

Funded?: Yes.

History:

Evaluation: Our inspection is for planning and budgeting purposes only; fire alarm equipment is assumed to have been designed and installed properly and is assumed to comply with all relevant building codes. Regular testing and inspections should be conducted as an Operating expense. In many cases, manufacturers discontinue support of equipment after a certain number of years, which may limit availability of replacement parts as the system ages. Cost estimates assume that existing wiring can be re-used and that only panel and devices will be replaced. If wiring requires replacement, estimates should be increased accordingly, but in our experience wiring should have an indefinite useful life. Cost estimates are based on quantity and type of existing equipment, not including any expansion or upgrades, which may be required. We recommend reviewing system components with fire alarm vendor on a regular basis. If expansion of system is found to be required, the Reserve Study should be updated and any additional costs should be factored accordingly.

Useful Life:  
20 years

Remaining Life:  
7 years



Best Case: \$ 7,000

Worst Case: \$ 8,000

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #: 2555 Exit/Emergency Lights - Replace**

**Quantity: ~ (13) Lights**

Location: Common areas

Funded?: Yes.

History:

Evaluation: Exit signs were not tested for functionality during site inspection. Replacement of individual signs can be included within the general maintenance and repair category of the Operating budget. Large-scale replacement of many (or all) fixtures may be warranted at some point and should ideally be coordinated with other life-safety components (i.e. fire alarm components) or with other lighting. There is a wide variety of fixture styles available, with a wide range of associated costs. Funding here to replace with fixtures comparable to those currently in place.

Useful Life:  
25 years

Remaining Life:  
12 years



Best Case: \$ 1,600

Worst Case: \$ 2,300

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #: 2563 Water Heater/Tank - Replace**

**Quantity: ~ (1) 40 Gallon Tank**

Location: Mechanical room

Funded?: Yes.

History:

Evaluation: The water heater was an electric, 40 gallon heater, serial number RH0205238099, Model number RHE PR 04028 with a manufacture date of February 2005. Water heater life expectancies can vary greatly depending on level of use, type of technology, amount of preventive maintenance and other factors. Should be inspected and repaired as needed by servicing vendor or maintenance staff. Unless otherwise noted, expected to be functional. Plan to replace at the approximate interval shown below. When evaluating replacements, we recommend choosing high-efficiency or tankless models if possible in order to minimize energy usage.

Useful Life:  
15 years

Remaining Life:  
2 years



Best Case: \$ 1,000

Worst Case: \$ 1,400

Cost Source: ARI Cost Database: Similar Project Cost History