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## "Full" Reserve Study



### **Hover Village Seven Community Association Longmont, CO**

**Report #: 36017-0**  
**For Period Beginning: February 1, 2019**  
**Expires: December 31, 2019**

**Date Prepared: April 2, 2019**

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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



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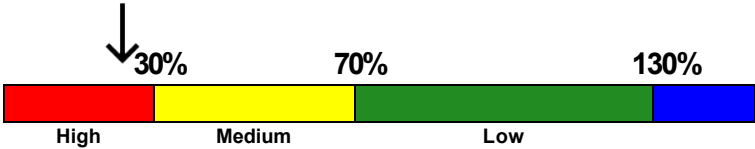
## 3- Minute Executive Summary

**Association:** Hover Village Seven Community Association **Assoc. #: 36017-0**  
**Location:** Longmont, CO **# of Units: 38**  
**Report Period:** February 1, 2019 through December 31, 2019

**Findings/Recommendations as-of: February 1, 2019**

Projected Starting Reserve Balance .....	\$80,634
Current Fully Funded Reserve Balance .....	\$333,559
Percent Funded .....	24.2 %
Recommended 2019 Monthly "Fully Funding" Contributions .....	\$3,000
Baseline Monthly Minimum Contributions to Keep Reserves Above \$0 .....	\$2,850
Recommended 2019 Special Assessments for Reserves .....	\$0
Most Recent Monthly Reserve Contribution Rate .....	\$1,133

Reserves % Funded: 24.2%



**Special Assessment Risk:**

**Economic Assumptions:**

**Net Annual "After Tax" Interest Earnings Accruing to Reserves .....** 1.25 %  
**Annual Inflation Rate .....** 3.00 %

- This is a "Full" Reserve Study, (original, created "from scratch"), based on our site inspection on 1/11/2019.
- The Reserve Study was reviewed by a credentialed Reserve Specialist (RS #260).
- Your Reserve Fund is currently 24.2 % Funded. This means the client'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 \$3,000 with 3.25% annual increases 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 a With-Site-Visit Reserve Study every three years. Research has found that clients who update their Reserve Study annually with a No-Site-Visit Reserve Study reduce their risk of special assessment by ~ 35%.
- A sample 'How to Read a Reserve Study' video tutorial can be found by following this link - [tiny.cc/reservestudy](http://tiny.cc/reservestudy)

#	Component	Useful Life (yrs)	Rem. Useful Life (yrs)	Current Average Cost
<b>Sites &amp; Grounds</b>				
2155	Site Fencing: Wood - Replace	20	8	\$25,700
2195	Landscaping - Refurbish	5	2	\$10,000
<b>Building Exteriors</b>				
2337	Wood Exterior - Seal/Paint	6	3	\$32,500
2353	Wood/Composite Siding - Replace	50	18	\$210,000
2377	Roof: Composition Shingle - Replace	25	12	\$274,650
2387	Gutters/Downspouts - Replace	25	12	\$28,700
<b>Mechanical</b>				
2581	Irrigation Clocks - Replace	5	2	\$1,250
<b>7 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.*



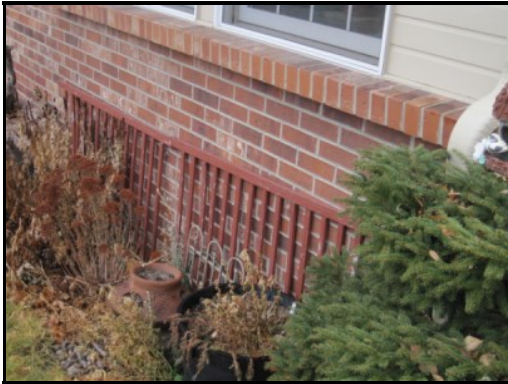
FUNDING OBJECTIVES

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 1/11/2019 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 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.

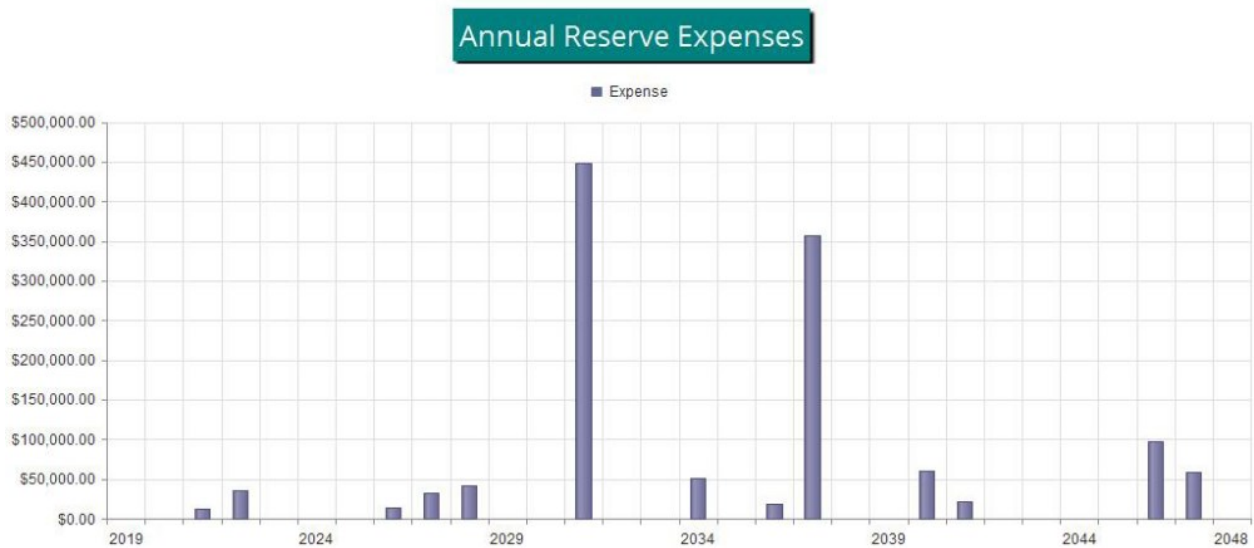


Figure 1

## Reserve Fund Status

As of 2/1/2019 your Reserve Fund balance is projected to be \$80,634 and your Fully Funded Balance is computed to be \$333,559 (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 24.2 % Funded.

## Recommended Funding Plan

Based on your current Percent Funded and your near-term and long-term Reserve needs, we are recommending Monthly budgeted contributions of \$3,000. 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.

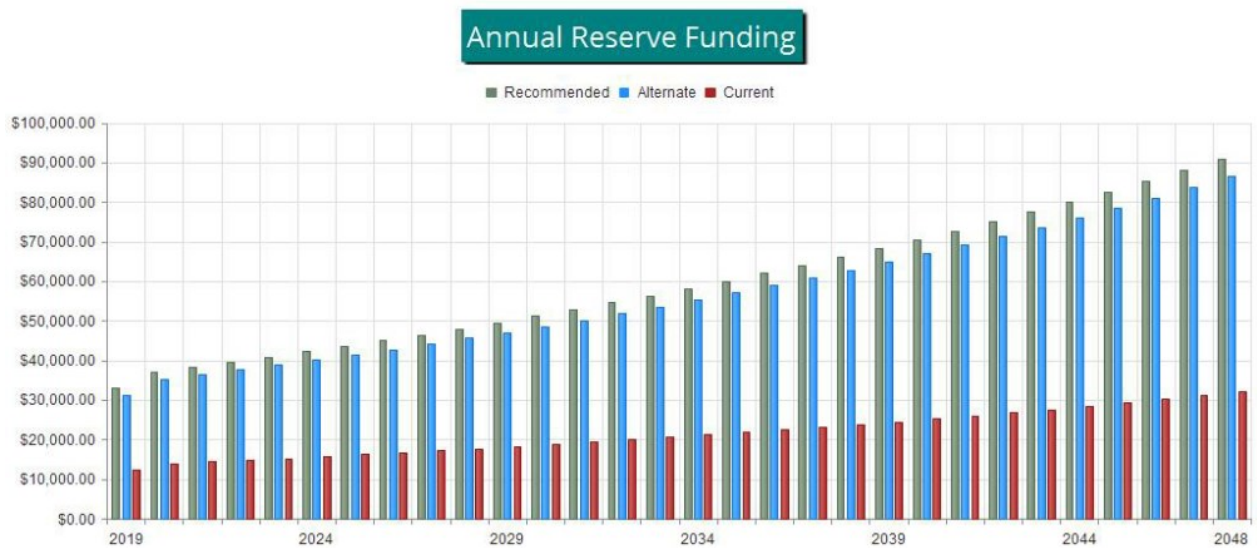


Figure 2

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.

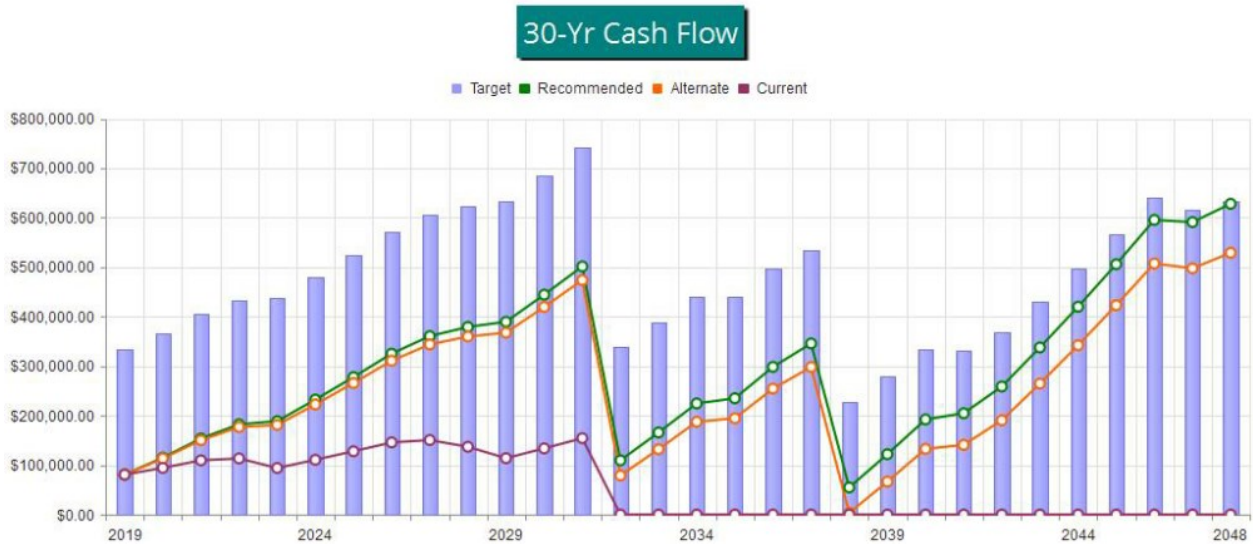


Figure 3

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.

A client that has a percent funded level of <30% may experience an ~ 20%-60% chance risk of special assessment. A client that is between 30% and 70% may experience an ~ 20%-5% chance risk of special assessment. A client that has a percent funded of >70% may experience an ~ <1% chance risk of special assessment.



Figure 4

## Table Descriptions

Executive Summary is a summary of your Reserve Components

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

Reserve 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.

30-Yr Reserve Plan 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.

30-Year Income/Expense 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.

# Budget Summary

36017-0  
Full

	Useful Life		2019 Rem. Useful Life		Estimated Replacement Cost in 2019	2019 Expenditures	02/01/2019 Fully Funded Balance	Remaining Bal. to be Funded	2019 Contributions
	Min	Max	Min	Max					
Sites & Grounds	5	20	2	8	\$35,700	\$0	\$21,756	\$13,944	\$4,677
Building Exteriors	6	50	3	18	\$545,850	\$0	\$311,030	\$486,972	\$30,967
Mechanical	5	5	2	2	\$1,250	\$0	\$773	\$1,250	\$356
					<b>\$582,800</b>	<b>\$0</b>	<b>\$333,559</b>	<b>\$502,166</b>	<b>\$36,000</b>

Percent Funded: 24.2%



#	Component	Quantity	Useful Life	Rem. Useful Life	Current Cost Estimate	
					Best Case	Worst Case
<b>Sites &amp; Grounds</b>						
2155	Site Fencing: Wood - Replace	~ 640 LF	20	8	\$22,500	\$28,900
2195	Landscaping - Refurbish	Common Areas	5	2	\$8,000	\$12,000
<b>Building Exteriors</b>						
2337	Wood Exterior - Seal/Paint	~ 16800 GSF	6	3	\$30,000	\$35,000
2353	Wood/Composite Siding - Replace	~ 16800 GSF	50	18	\$168,000	\$252,000
2377	Roof: Composition Shingle - Replace	~ 61000 GSF	25	12	\$244,100	\$305,200
2387	Gutters/Downspouts - Replace	~ 4100 LF	25	12	\$24,600	\$32,800
<b>Mechanical</b>						
2581	Irrigation Clocks - Replace	~ (3) Controlles	5	2	\$1,000	\$1,500

7 Total Funded Components



#	Component	Current Cost Estimate	X	Effective Age	/	Useful Life	=	Fully Funded Balance
<b>Sites &amp; Grounds</b>								
2155	Site Fencing: Wood - Replace	\$25,700	X	12	/	20	=	\$15,569
2195	Landscaping - Refurbish	\$10,000	X	3	/	5	=	\$6,187
<b>Building Exteriors</b>								
2337	Wood Exterior - Seal/Paint	\$32,500	X	3	/	6	=	\$16,756
2353	Wood/Composite Siding - Replace	\$210,000	X	32	/	50	=	\$135,097
2377	Roof: Composition Shingle - Replace	\$274,650	X	13	/	25	=	\$144,118
2387	Gutters/Downspouts - Replace	\$28,700	X	13	/	25	=	\$15,060
<b>Mechanical</b>								
2581	Irrigation Clocks - Replace	\$1,250	X	3	/	5	=	\$773
								\$333,559

# Component Significance

36017-0  
Full

#	Component	Useful Life (yrs)	Current Cost Estimate	Deterioration Cost/Yr	Deterioration Significance
<b>Sites &amp; Grounds</b>					
2155	Site Fencing: Wood - Replace	20	\$25,700	\$1,285	5.08 %
2195	Landscaping - Refurbish	5	\$10,000	\$2,000	7.91 %
<b>Building Exteriors</b>					
2337	Wood Exterior - Seal/Paint	6	\$32,500	\$5,417	21.42 %
2353	Wood/Composite Siding - Replace	50	\$210,000	\$4,200	16.61 %
2377	Roof: Composition Shingle - Replace	25	\$274,650	\$10,986	43.45 %
2387	Gutters/Downspouts - Replace	25	\$28,700	\$1,148	4.54 %
<b>Mechanical</b>					
2581	Irrigation Clocks - Replace	5	\$1,250	\$250	0.99 %
7	Total Funded Components			\$25,286	100.00 %

# 30-Year Reserve Plan Summary

36017-0  
Full

Fiscal Year Start: 2019	Interest: 1.25 %	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.			
2019	\$80,634	\$333,559	24.2 %	High	164.82 %	\$33,000	\$0	\$1,221	\$0
2020	\$114,855	\$366,523	31.3 %	Medium	12.64 %	\$37,170	\$0	\$1,678	\$0
2021	\$153,703	\$404,344	38.0 %	Medium	3.25 %	\$38,378	\$0	\$2,099	\$11,935
2022	\$182,244	\$431,812	42.2 %	Medium	3.25 %	\$39,625	\$0	\$2,317	\$35,514
2023	\$188,673	\$436,646	43.2 %	Medium	3.25 %	\$40,913	\$0	\$2,629	\$0
2024	\$232,215	\$479,059	48.5 %	Medium	3.25 %	\$42,243	\$0	\$3,185	\$0
2025	\$277,643	\$523,623	53.0 %	Medium	3.25 %	\$43,616	\$0	\$3,765	\$0
2026	\$325,023	\$570,430	57.0 %	Medium	3.25 %	\$45,033	\$0	\$4,282	\$13,836
2027	\$360,503	\$605,323	59.6 %	Medium	3.25 %	\$46,497	\$0	\$4,620	\$32,556
2028	\$379,063	\$622,942	60.9 %	Medium	3.25 %	\$48,008	\$0	\$4,801	\$42,405
2029	\$389,467	\$631,935	61.6 %	Medium	3.25 %	\$49,568	\$0	\$5,208	\$0
2030	\$444,243	\$685,894	64.8 %	Medium	3.25 %	\$51,179	\$0	\$5,907	\$0
2031	\$501,329	\$742,522	67.5 %	Medium	3.25 %	\$52,842	\$0	\$3,815	\$448,544
2032	\$109,442	\$339,930	32.2 %	Medium	3.25 %	\$54,560	\$0	\$1,719	\$0
2033	\$165,721	\$388,375	42.7 %	Medium	3.25 %	\$56,333	\$0	\$2,438	\$0
2034	\$224,491	\$439,420	51.1 %	Medium	3.25 %	\$58,164	\$0	\$2,870	\$50,634
2035	\$234,891	\$441,026	53.3 %	Medium	3.25 %	\$60,054	\$0	\$3,331	\$0
2036	\$298,276	\$496,050	60.1 %	Medium	3.25 %	\$62,006	\$0	\$4,023	\$18,595
2037	\$345,710	\$534,826	64.6 %	Medium	3.25 %	\$64,021	\$0	\$2,501	\$357,511
2038	\$54,721	\$226,973	24.1 %	High	3.25 %	\$66,102	\$0	\$1,103	\$0
2039	\$121,927	\$279,451	43.6 %	Medium	3.25 %	\$68,250	\$0	\$1,962	\$0
2040	\$192,139	\$334,873	57.4 %	Medium	3.25 %	\$70,468	\$0	\$2,478	\$60,460
2041	\$204,626	\$331,096	61.8 %	Medium	3.25 %	\$72,759	\$0	\$2,894	\$21,556
2042	\$258,723	\$368,730	70.2 %	Low	3.25 %	\$75,123	\$0	\$3,725	\$0
2043	\$337,571	\$431,192	78.3 %	Low	3.25 %	\$77,565	\$0	\$4,731	\$0
2044	\$419,867	\$497,071	84.5 %	Low	3.25 %	\$80,086	\$0	\$5,782	\$0
2045	\$505,734	\$566,514	89.3 %	Low	3.25 %	\$82,688	\$0	\$6,878	\$0
2046	\$595,300	\$639,676	93.1 %	Low	3.25 %	\$85,376	\$0	\$7,410	\$97,181
2047	\$590,905	\$616,621	95.8 %	Low	3.25 %	\$88,150	\$0	\$7,613	\$58,800
2048	\$627,868	\$634,143	99.0 %	Low	3.25 %	\$91,015	\$0	\$8,466	\$0

# 30-Year Income/Expense Detail

36017-0  
Full

Fiscal Year	2019	2020	2021	2022	2023
Starting Reserve Balance	\$80,634	\$114,855	\$153,703	\$182,244	\$188,673
Annual Reserve Contribution	\$33,000	\$37,170	\$38,378	\$39,625	\$40,913
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$1,221	\$1,678	\$2,099	\$2,317	\$2,629
<b>Total Income</b>	<b>\$114,855</b>	<b>\$153,703</b>	<b>\$194,179</b>	<b>\$224,187</b>	<b>\$232,215</b>
# Component					
<b>Sites &amp; Grounds</b>					
2155 Site Fencing: Wood - Replace	\$0	\$0	\$0	\$0	\$0
2195 Landscaping - Refurbish	\$0	\$0	\$10,609	\$0	\$0
<b>Building Exteriors</b>					
2337 Wood Exterior - Seal/Paint	\$0	\$0	\$0	\$35,514	\$0
2353 Wood/Composite Siding - Replace	\$0	\$0	\$0	\$0	\$0
2377 Roof: Composition Shingle - Replace	\$0	\$0	\$0	\$0	\$0
2387 Gutters/Downspouts - Replace	\$0	\$0	\$0	\$0	\$0
<b>Mechanical</b>					
2581 Irrigation Clocks - Replace	\$0	\$0	\$1,326	\$0	\$0
<b>Total Expenses</b>	<b>\$0</b>	<b>\$0</b>	<b>\$11,935</b>	<b>\$35,514</b>	<b>\$0</b>
Ending Reserve Balance	\$114,855	\$153,703	\$182,244	\$188,673	\$232,215

<b>Fiscal Year</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>
Starting Reserve Balance	\$232,215	\$277,643	\$325,023	\$360,503	\$379,063
Annual Reserve Contribution	\$42,243	\$43,616	\$45,033	\$46,497	\$48,008
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$3,185	\$3,765	\$4,282	\$4,620	\$4,801
<b>Total Income</b>	<b>\$277,643</b>	<b>\$325,023</b>	<b>\$374,339</b>	<b>\$411,619</b>	<b>\$431,872</b>
# Component					
<b>Sites &amp; Grounds</b>					
2155 Site Fencing: Wood - Replace	\$0	\$0	\$0	\$32,556	\$0
2195 Landscaping - Refurbish	\$0	\$0	\$12,299	\$0	\$0
<b>Building Exteriors</b>					
2337 Wood Exterior - Seal/Paint	\$0	\$0	\$0	\$0	\$42,405
2353 Wood/Composite Siding - Replace	\$0	\$0	\$0	\$0	\$0
2377 Roof: Composition Shingle - Replace	\$0	\$0	\$0	\$0	\$0
2387 Gutters/Downspouts - Replace	\$0	\$0	\$0	\$0	\$0
<b>Mechanical</b>					
2581 Irrigation Clocks - Replace	\$0	\$0	\$1,537	\$0	\$0
<b>Total Expenses</b>	<b>\$0</b>	<b>\$0</b>	<b>\$13,836</b>	<b>\$32,556</b>	<b>\$42,405</b>
Ending Reserve Balance	\$277,643	\$325,023	\$360,503	\$379,063	\$389,467

<b>Fiscal Year</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>	<b>2032</b>	<b>2033</b>
Starting Reserve Balance	\$389,467	\$444,243	\$501,329	\$109,442	\$165,721
Annual Reserve Contribution	\$49,568	\$51,179	\$52,842	\$54,560	\$56,333
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$5,208	\$5,907	\$3,815	\$1,719	\$2,438
<b>Total Income</b>	<b>\$444,243</b>	<b>\$501,329</b>	<b>\$557,986</b>	<b>\$165,721</b>	<b>\$224,491</b>
# Component					
<b>Sites &amp; Grounds</b>					
2155 Site Fencing: Wood - Replace	\$0	\$0	\$0	\$0	\$0
2195 Landscaping - Refurbish	\$0	\$0	\$14,258	\$0	\$0
<b>Building Exteriors</b>					
2337 Wood Exterior - Seal/Paint	\$0	\$0	\$0	\$0	\$0
2353 Wood/Composite Siding - Replace	\$0	\$0	\$0	\$0	\$0
2377 Roof: Composition Shingle - Replace	\$0	\$0	\$391,585	\$0	\$0
2387 Gutters/Downspouts - Replace	\$0	\$0	\$40,919	\$0	\$0
<b>Mechanical</b>					
2581 Irrigation Clocks - Replace	\$0	\$0	\$1,782	\$0	\$0
<b>Total Expenses</b>	<b>\$0</b>	<b>\$0</b>	<b>\$448,544</b>	<b>\$0</b>	<b>\$0</b>
Ending Reserve Balance	\$444,243	\$501,329	\$109,442	\$165,721	\$224,491

<b>Fiscal Year</b>	<b>2034</b>	<b>2035</b>	<b>2036</b>	<b>2037</b>	<b>2038</b>
Starting Reserve Balance	\$224,491	\$234,891	\$298,276	\$345,710	\$54,721
Annual Reserve Contribution	\$58,164	\$60,054	\$62,006	\$64,021	\$66,102
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$2,870	\$3,331	\$4,023	\$2,501	\$1,103
<b>Total Income</b>	<b>\$285,525</b>	<b>\$298,276</b>	<b>\$364,304</b>	<b>\$412,232</b>	<b>\$121,927</b>
# Component					
<b>Sites &amp; Grounds</b>					
2155 Site Fencing: Wood - Replace	\$0	\$0	\$0	\$0	\$0
2195 Landscaping - Refurbish	\$0	\$0	\$16,528	\$0	\$0
<b>Building Exteriors</b>					
2337 Wood Exterior - Seal/Paint	\$50,634	\$0	\$0	\$0	\$0
2353 Wood/Composite Siding - Replace	\$0	\$0	\$0	\$357,511	\$0
2377 Roof: Composition Shingle - Replace	\$0	\$0	\$0	\$0	\$0
2387 Gutters/Downspouts - Replace	\$0	\$0	\$0	\$0	\$0
<b>Mechanical</b>					
2581 Irrigation Clocks - Replace	\$0	\$0	\$2,066	\$0	\$0
<b>Total Expenses</b>	<b>\$50,634</b>	<b>\$0</b>	<b>\$18,595</b>	<b>\$357,511</b>	<b>\$0</b>
Ending Reserve Balance	\$234,891	\$298,276	\$345,710	\$54,721	\$121,927

<b>Fiscal Year</b>	<b>2039</b>	<b>2040</b>	<b>2041</b>	<b>2042</b>	<b>2043</b>
Starting Reserve Balance	\$121,927	\$192,139	\$204,626	\$258,723	\$337,571
Annual Reserve Contribution	\$68,250	\$70,468	\$72,759	\$75,123	\$77,565
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$1,962	\$2,478	\$2,894	\$3,725	\$4,731
<b>Total Income</b>	<b>\$192,139</b>	<b>\$265,086</b>	<b>\$280,279</b>	<b>\$337,571</b>	<b>\$419,867</b>
# Component					
<b>Sites &amp; Grounds</b>					
2155 Site Fencing: Wood - Replace	\$0	\$0	\$0	\$0	\$0
2195 Landscaping - Refurbish	\$0	\$0	\$19,161	\$0	\$0
<b>Building Exteriors</b>					
2337 Wood Exterior - Seal/Paint	\$0	\$60,460	\$0	\$0	\$0
2353 Wood/Composite Siding - Replace	\$0	\$0	\$0	\$0	\$0
2377 Roof: Composition Shingle - Replace	\$0	\$0	\$0	\$0	\$0
2387 Gutters/Downspouts - Replace	\$0	\$0	\$0	\$0	\$0
<b>Mechanical</b>					
2581 Irrigation Clocks - Replace	\$0	\$0	\$2,395	\$0	\$0
<b>Total Expenses</b>	<b>\$0</b>	<b>\$60,460</b>	<b>\$21,556</b>	<b>\$0</b>	<b>\$0</b>
Ending Reserve Balance	\$192,139	\$204,626	\$258,723	\$337,571	\$419,867



<b>Fiscal Year</b>	<b>2044</b>	<b>2045</b>	<b>2046</b>	<b>2047</b>	<b>2048</b>
Starting Reserve Balance	\$419,867	\$505,734	\$595,300	\$590,905	\$627,868
Annual Reserve Contribution	\$80,086	\$82,688	\$85,376	\$88,150	\$91,015
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$5,782	\$6,878	\$7,410	\$7,613	\$8,466
<b>Total Income</b>	<b>\$505,734</b>	<b>\$595,300</b>	<b>\$688,086</b>	<b>\$686,668</b>	<b>\$727,349</b>
# Component					
<b>Sites &amp; Grounds</b>					
2155 Site Fencing: Wood - Replace	\$0	\$0	\$0	\$58,800	\$0
2195 Landscaping - Refurbish	\$0	\$0	\$22,213	\$0	\$0
<b>Building Exteriors</b>					
2337 Wood Exterior - Seal/Paint	\$0	\$0	\$72,192	\$0	\$0
2353 Wood/Composite Siding - Replace	\$0	\$0	\$0	\$0	\$0
2377 Roof: Composition Shingle - Replace	\$0	\$0	\$0	\$0	\$0
2387 Gutters/Downspouts - Replace	\$0	\$0	\$0	\$0	\$0
<b>Mechanical</b>					
2581 Irrigation Clocks - Replace	\$0	\$0	\$2,777	\$0	\$0
<b>Total Expenses</b>	<b>\$0</b>	<b>\$0</b>	<b>\$97,181</b>	<b>\$58,800</b>	<b>\$0</b>
Ending Reserve Balance	\$505,734	\$595,300	\$590,905	\$627,868	\$727,349

## 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 #: 2155 Site Fencing: Wood - Replace**

**Quantity: ~ 640 LF**

Location: Common Areas

Funded?: Yes.

History:

Comments: Wood fencing determined to be in fair condition typically exhibits some minor to moderate amounts of surface wear and other signs of age which may include a small percentage of warped split and/or rotted sections. In general appearance is consistent but declining. As routine maintenance inspect regularly for any damage repair as needed and avoid contact with ground and surrounding vegetation wherever possible. Regular cycles of uniform professional sealing/painting will help to maintain appearance and maximize life. In our experience wood 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. Recommendation and costs shown here are based on replacement with similar style and material. However the client might want to consider replacing with more sturdy lower-maintenance products like composite vinyl etc. Although installation costs are higher total life cycle cost is lower due to less maintenance and longer design life expectancy.

Useful Life:  
20 years

Remaining Life:  
8 years



Best Case: \$ 22,500

Worst Case: \$ 28,900

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #: 2195 Landscaping - Refurbish**

**Quantity: Common Areas**

Location: Common Areas

Funded?: Yes.

History:

Comments: Funding included at the request of the client. Client also expressed concern over costs of irrigation line replacement however the vendor reported that the system was in fair condition and no reason to expect large scale replacements and continue replacing irrigation lines on an as needed basis. Routine daily/weekly/monthly maintenance is expected to be funded through the Operating budget. However this component represents a supplemental allowance" for larger projects which may occur periodically

Useful Life:  
5 years

Remaining Life:  
2 years



Best Case: \$ 8,000

Worst Case: \$ 12,000

Cost Source: Estimate Provided by Client

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## Building Exteriors

**Comp #:** 2323 Decks/Rails/Trellis - Replace

**Quantity:** Numerous LF

Location: Building Exteriors

Funded?: No.

History:

Comments: All decks and rails are reportedly the individual owners responsibility. If railing is exposed to the elements without adequate coating for an extended period of time useful life may be severely reduced. In general costs related to this component are expected to be included in the client'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:

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**Comp #: 2337 Wood Exterior - Seal/Paint**

**Quantity: ~ 16800 GSF**

Location: Building Exteriors

Funded?: Yes.

History: Painted in 2016

Comments: 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. As routine maintenance inspect regularly (including sealants) repair locally and touch-up paint as needed. Typical paint cycles can vary greatly depending upon many factors including type of material painted surface preparations quality of material application methods weather conditions during application moisture beneath paint and exposure to weather conditions. 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 client 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.

Useful Life:  
6 years

Remaining Life:  
3 years



Best Case: \$ 30,000

Worst Case: \$ 35,000

Cost Source: Estimate Provided by Client



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

**Quantity: Numerous GSF**

Location: Building Exteriors

Funded?: No.

History:

Comments: Brick is typically a low maintenance material that usually requires little maintenance work. After 30-50 years (or more) mortar between brick can require repointing. Repointing involves grinding out small sections of existing mortar and installing new mortar and continuing on until all the mortar has been replaced. As the brick and mortar ages cracking may appear indicating need for repointing. Currently there is no predictable scope or timing for repointing work. Reserve Study review is for financial planning purposes only and if a thorough investigation of brick and mortar is desired we recommend having a masonry specialist inspect the brick and mortar. Funding can be added to future updates to the Reserve Study if scope and timing become more well-defined. No funding suggested at this time.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

**Comp #: 2353 Wood/Composite Siding - Replace**

**Quantity: ~ 16800 GSF**

Location: Building Exteriors

Funded?: Yes.

History:

Comments: Wood siding determined to be in fair condition typically exhibits some color fading and inconsistency with minor isolated locations showing more advanced surface wear cracking splintering etc. Composite siding is a compressed glued wood fiber material. It is important to paint this type of siding regularly due to its ability to absorb water quickly when the surface is deteriorated or weathered. Once the composite siding takes on water the siding will swell and crack. At next replacement client might want to consider replacing with more sturdy lower-maintenance products. Although installation costs are higher total life cycle cost is lower due to less maintenance and longer design life expectancy.

Useful Life:  
50 years

Remaining Life:  
18 years



Best Case: \$ 168,000

Worst Case: \$ 252,000

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #: 2361 Windows - Replace**

**Quantity: Numerous Windows**

Location: Building Exteriors

Funded?: No.

History:

Comments: Upon review of the client's governing documents individual owners (not the client) appear to be responsible for window replacement. Consult with the client's attorney to determine actual responsibility but based on our review there is no need for Reserve funding.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

**Comp #: 2377 Roof: Composition Shingle - Replace**

**Quantity: ~ 61000 GSF**

Location: Building Exteriors

Funded?: Yes.

History: Replaced in 2006

Comments: Generally fair condition of roofing system observed during our limited visual review. Closed valleys were observed. Ventilation (the lack of which can greatly reduce the roof's useful life) was observed at the eave and ridge. Eave venting consisted of soffit holes between the rafters. Ridge venting appeared to be provided by roof jacks. Visible portions of roof flashing were observed at the rake headwall and sidewall. Debris was not observed on the roof surface. Asphalt shingle roofs determined to be in fair condition and typically exhibit normal signs of wear and deterioration including some loss of granule cover and light to moderate curling/lifting especially in most exposed areas. Overall believed to be aging normally. A reserve study conducts only a limited visual review and many of the critical waterproofing and ventilation items of the roof are not readily viewable. For a full evaluation have a professional roof consultant/contractor perform a thorough up-close survey of your entire roof system including attic inspection (if any). Costs below factors replacement with an architectural grade laminated shingle. As routine maintenance many manufacturers recommend inspections at least twice annually (once in the fall before the snow season and again in the spring) and after large storm events. Promptly replace any damaged/missing sections or any other repair needed to ensure waterproof integrity of roof. Keep roof surface gutters and downspouts clear and free of debris. At the time of re-roofing we recommend that you hire a professional consultant to evaluate the existing roof and specify the new roof materials/design provide installation oversight. We recommend that all clients hire qualified consultants whenever they are considering having work performed on any building envelope (waterproofing) components including: roof walls windows decks exterior painting and caulking/sealant. There is a wealth of information available through Roofing Organizations such as: National Roofing Contractors client (NRCA) <http://www.nrca.net>. Asphalt Roofing Manufacturers client (ARMA) <http://www.asphaltroofing.org/> Roof Consultant Institute (RCI) <http://www.rci-online.org>

Useful Life:  
25 years

Remaining Life:  
12 years



Best Case: \$ 244,100

Worst Case: \$ 305,200

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #: 2387 Gutters/Downspouts - Replace**

**Quantity: ~ 4100 LF**

Location: Building Exteriors

Funded?: Yes.

History: Replaced in 2006

Comments: Gutters and downspouts determined to be in fair condition typically exhibit some normal wear and tear but drainage away from the roof and building appears to be adequate. Generally believed to be aging normally. Gutters and downspouts are assumed to be functioning properly unless otherwise noted. As routine maintenance inspect regularly keep gutters and downspouts free of debris. If buildings are located near trees keep trees trimmed back to avoid accumulation of leaves on the roof surface which will accumulate in the gutters and increase maintenance requirements while reducing life expectancy. Repair or replace individual sections as needed as an Operating expense. We generally recommend that the gutters and downspouts be replaced when the roof is being resurfaced/replaced. National Roofing Contractor client (NRCA) roofing standard includes installing eave flashings at the gutters. We suggest to plan for total replacement of gutter and downspouts at the same intervals as roof replacement for cost efficiency. Unless otherwise noted costs shown here assume replacement with similar type as are currently in place.

Useful Life:  
25 years

Remaining Life:  
12 years



Best Case: \$ 24,600

Worst Case: \$ 32,800

Cost Source: ARI Cost Database: Similar Project Cost History

## Mechanical

**Comp #: 2581 Irrigation Clocks - Replace**

**Quantity: ~ (3) Controlles**

Location: Common Areas

Funded?: Yes.

History:

Comments: Minimal or no subjective/aesthetic value for this component. Useful life is based primarily on normal expectations for service/performance life in this location. Unless otherwise noted remaining useful life expectancy is based primarily on original installation or last replacement/purchase date our experience with similar systems/components and assuming normal amount of usage and good preventive maintenance. Irrigation controllers should have a relatively long life expectancy under normal circumstances. Replacement is often required due to lack of available replacement parts lightning strikes etc. as opposed to complete failure of existing equipment. Exposure to the elements can affect overall life expectancy and controllers should be located in protected areas or within protective enclosures whenever possible. When evaluating replacement options the client should consider replacement with smart" models (i.e. respond to projected weather data) to minimize unnecessary water usage. Payback period for efficient controllers that minimize water use is typically very short

Useful Life:  
5 years

Remaining Life:  
2 years



Best Case: \$ 1,000

Worst Case: \$ 1,500

Cost Source: Research with Local Vendor/Contractor