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“Full” Reserve Study



Callicotte Ranch HOA **Carbondale, CO**

Report #: 31243-0
For Period Beginning: January 1, 2017
Expires: December 31, 2017
Date Prepared: November 14, 2016



Hello, and welcome to your Reserve Study!

We don't want you to be surprised. This Report is designed to help you anticipate, and prepare for, the major common area expenses your association will face. Inside you will find:

- 1) The Reserve Component List (the “Scope and Schedule” of your Reserve projects) – telling you what your association is Reserving for, what condition they are in now, and what they'll cost to replace.**
- 2) An Evaluation of your current Reserve Fund Size and Strength (Percent Funded). This tells you your financial starting point, revealing your risk of deferred maintenance and special assessments.**
- 3) A Recommended Multi-Year Reserve Funding Plan, answering the question... “What do we do now?”**

More Questions?

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

303/394-9181



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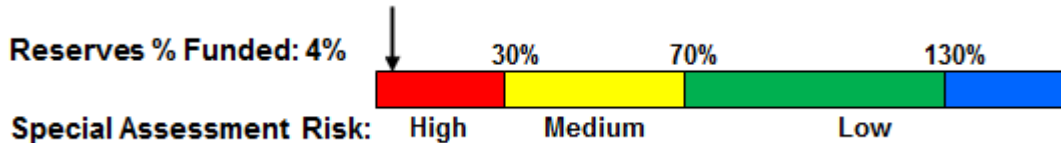
3- Minute Executive Summary

Association: Callicotte Ranch HOA **#:** 31243-0
Location: Carbondale, CO **# of Units:** 28
Report Period: January 1, 2017 through December 31, 2017

Findings/Recommendations as-of 1/1/2017:

Projected Starting Reserve Balance:	\$16,906
Current Fully Funded Reserve Balance:	\$457,989
Average Reserve Deficit Per Unit:	\$15,753
Recommended 2017 Monthly "Full Funding" Contributions:.....	\$10,220
Alternate Minimum Contributions to keep Reserves above \$0:	\$9,660
Recommended 2017 Special Assessment for Reserves:	\$0

Most Recent Budgeted Reserve Contribution Rate:\$700



Economic Assumptions:

Net Annual "After Tax" Interest Earnings Accruing to Reserves..... 1.00%
 Annual Inflation Rate 3.00%

- This is a "Full" Reserve Study (original, created "from scratch"), and is based on our site inspection on September 9, 2016. It was prepared by a credentialed Reserve Specialist (RS #260).
- Your Reserve Fund is currently 4% 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 increase your Reserve contributions in order to be within the 70% to 100% 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.

#	Component	Useful Life (yrs)	Rem. Useful Life (yrs)	Current Cost Estimate
Sites & Grounds				
2103	Ditch / Culvert - Maintenance	1	0	\$1,500
2115	Concrete Pad - Repair - 5%	5	4	\$1,400
2129	Trails - Refurbish	10	0	\$2,300
2131	Asphalt - Seal/Repair	4	0	\$40,100
2132	Asphalt - Resurface	25	16	\$647,500
2133	Asphalt - Remove & Replace	25	0	\$19,800
2151	Site Fencing: Wood - Repair/Paint	3	2	\$6,000
2157	Site Fencing: Wood - Replace - 15%	6	5	\$12,900
2167	Gazebo - Paint/Maintain	5	4	\$2,250
2167	Pump House - Paint/Maintain	5	0	\$5,000
2168	Tile Roofs - Replace	25	16	\$58,900
2179	Mailboxes - Replace	30	21	\$2,150
2181	Entry Monuments - Paint/Maintain	5	4	\$6,000
2183	Directional/Street Signs - Replace	20	11	\$1,200
2197	Ponds - Maintain	3	0	\$15,000
Mechanical Systems				
2530	High Service Pump - Replace	20	11	\$8,800
2532	Booster Pumps - Replace	20	11	\$9,400
2534	Submersible Well Pumps - Replace	10	1	\$9,200
2537	Boosters VFD - Replace	15	6	\$9,600
2537	High Service Pump VFD - Replace	15	6	\$17,800
2537	Wells VFD - Replace	15	6	\$11,600
2540	Sensaphone - Replace	8	0	\$2,000
2547	Cummins Generator/Switch - Replace	40	31	\$34,000
2562	Water Storage Tank - Inspect	5	0	\$2,500
2564	Water Storage Tank Interior - Paint	15	6	\$35,000
2565	Water Storage Tank Exterior - Paint	15	6	\$9,500
2589	Irrigation System - Repair	3	2	\$2,000
2590	Irrigation System - Rebuild	15	14	\$500,000
28	Total Funded Components			

Note 1: a Useful Life of "N/A" means a one-time expense, not expected to repeat.

Note 2: Yellow highlighted line items are expected to require attention in the initial year, green highlighted items are expected to occur within the first five years.

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

LEVELS OF SERVICE



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...

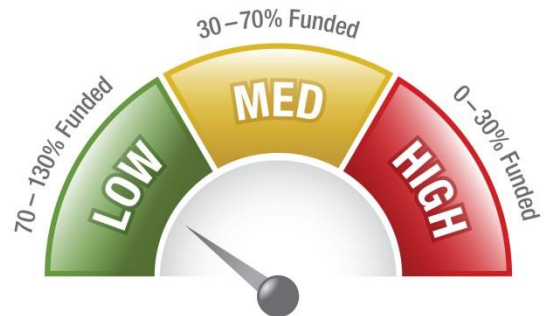
- 1) Actual client cost history, or current proposals
- 2) Comparison to Association Reserves database of work done at similar associations
- 3) Vendor Recommendations
- 4) Reliable National Industry cost estimating guidebooks

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.



SPECIAL ASSESSMENT RISK

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 September 9, 2016, we started with a brief meeting with Courtney Nel, and then started the site inspection beginning with the common areas. We visually inspected the buildings, and were able to see a majority of the common areas. We were not able to inspect the interior of the pump house.

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. Your *first five years* of projected Reserve expenses total \$185,012. Adding the next five years, your *first ten years* of projected Reserve expenses are \$440,409. 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 Table 5, while details of the projects that make up these expenses are shown in Table 6.

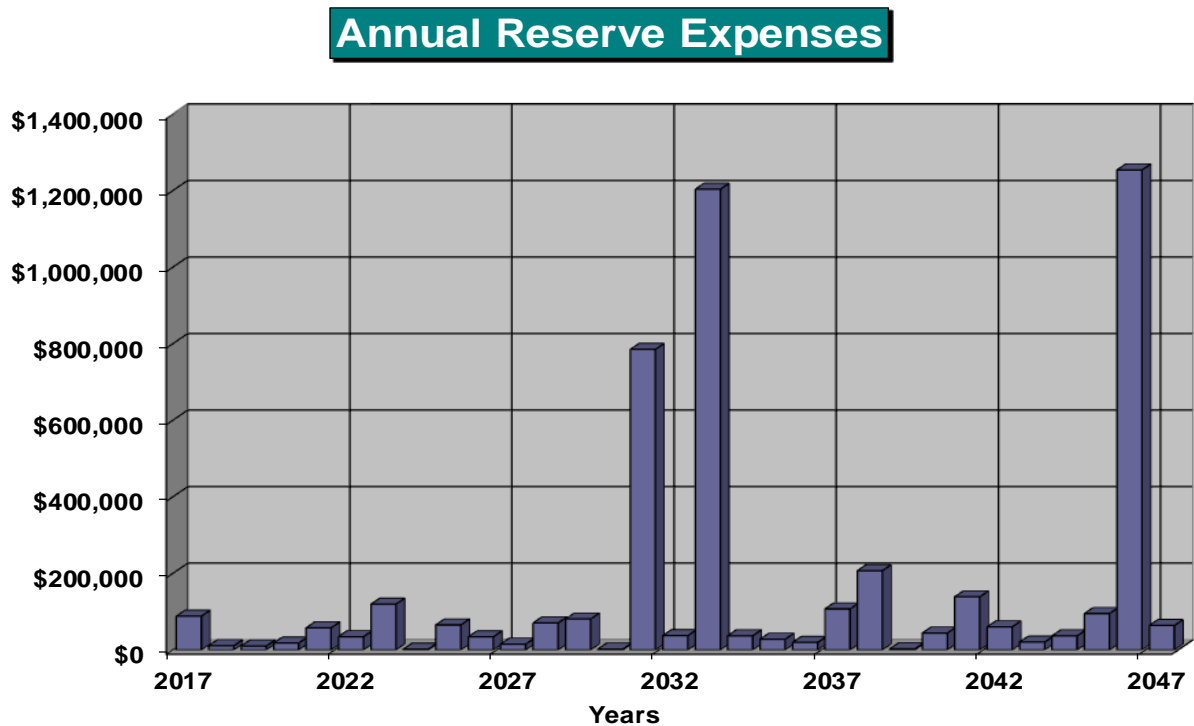


Figure 1

Reserve Fund Status

The starting point for our financial analysis is your Reserve Fund balance, projected to be \$16,906 as-of the start of your Fiscal Year on January 1, 2017. As of January 1, 2017, your Fully Funded Balance is computed to be \$457,989 (see Table 3). This figure represents the deteriorated value of your common area components. Comparing your Reserve Balance to your Fully Funded Balance indicates your Reserves are 4% Funded. Across the country, approx 58% of associations in this range experience special assessments or deferred maintenance.

Recommended Funding Plan

Based on your current Percent Funded and your near-term and long-term Reserve needs, we are recommending budgeted contributions of \$10,220/month this Fiscal Year. The overall 30-yr plan, in perspective, is shown below. This same information is shown numerically in both Table 5 and Table 6.

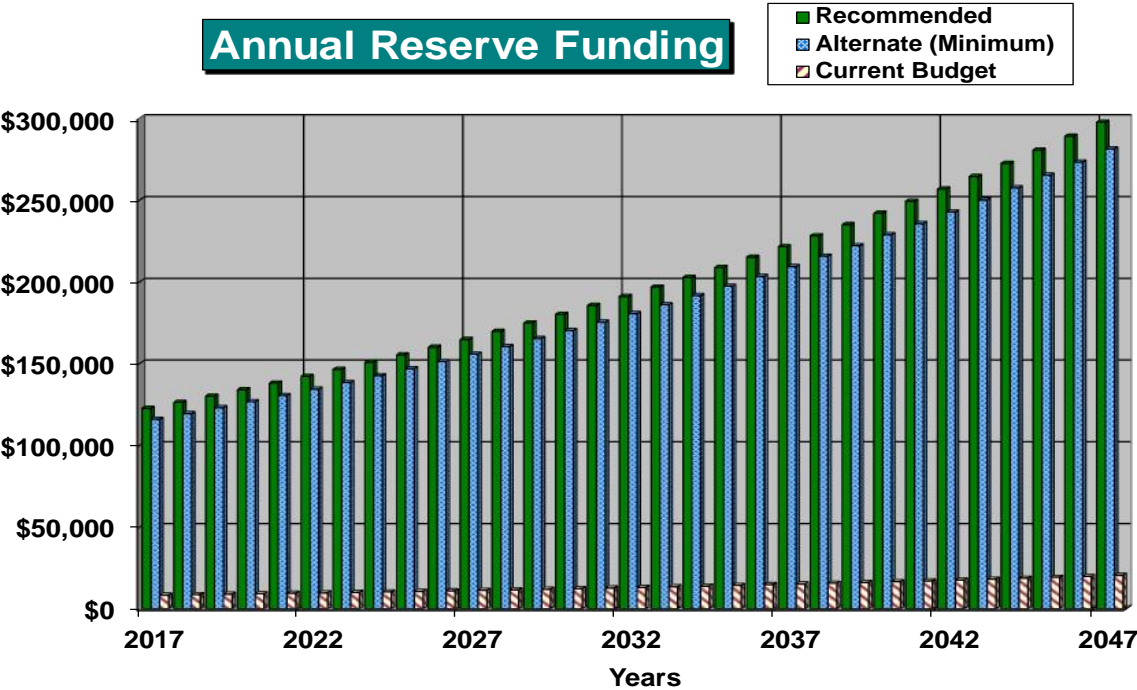


Figure 2

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.

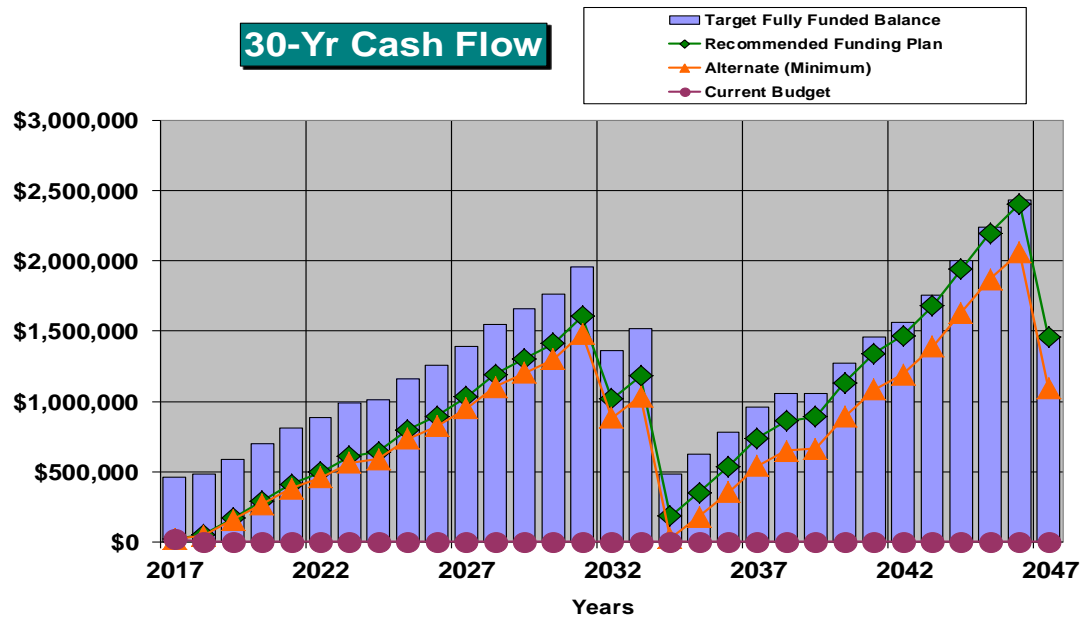


Figure 3

This figure shows this same information, plotted on a [Percent Funded](#) scale.

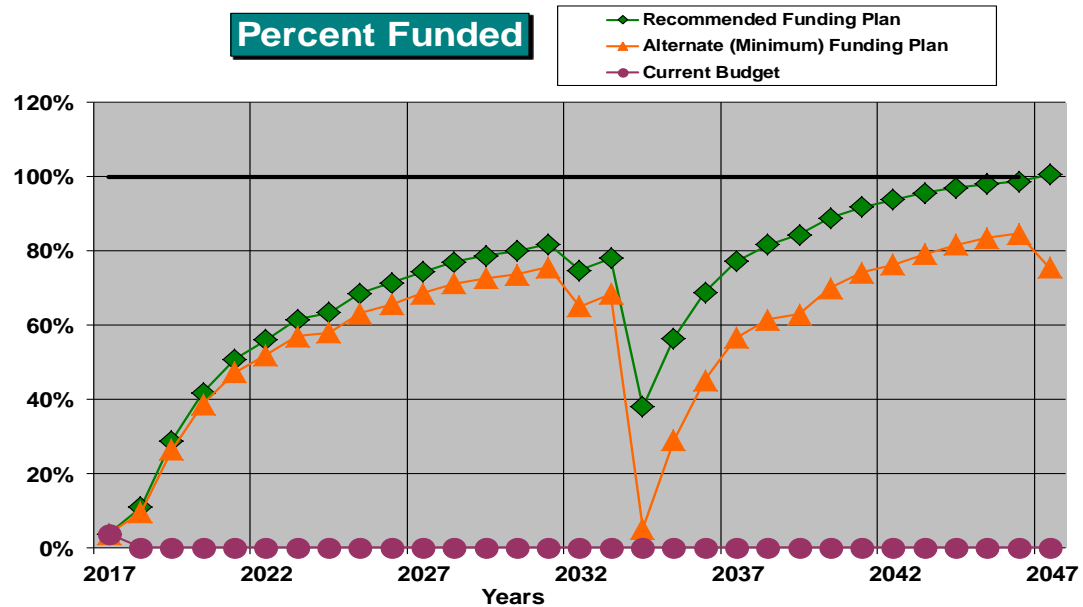


Figure 4

Table Descriptions

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

Table 1 is a summary of your Reserve Components (your Reserve Component List), the information found in Table 2.

Table 2 is your Reserve Component List, which forms the foundation of this Reserve Study. This table represents the information from which all other tables are derived.

Table 3 shows the calculation of your Fully Funded Balance, the measure of your current Reserve component deterioration. For each component, the Fully Funded Balance is the fraction of life used up multiplied by its estimated Current Replacement Cost.

Table 4 shows the significance of each component to Reserve 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 Current Replacement Cost by Useful Life, then that component's percentage of the total is displayed.

Table 5: This table 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 for each year.

Table 6: This table shows the cash flow detail for the next 30 years. This table makes it possible to see which components are projected to require repair or replacement each year, and the size of those individual expenses.

Table 2: Reserve Component List Detail
31243-0

#	Component	Quantity	Useful Life	Rem.	[--- Current Cost Estimate ---]	
				Useful Life	Best Case	Worst Case
Sites & Grounds						
2103	Ditch / Culvert - Maintenance	~ (1) Culvert/Ditch	1	0	\$1,000	\$2,000
2115	Concrete Pad - Repair - 5%	5% of ~ 2,100 GSF	5	4	\$1,200	\$1,600
2129	Trails - Refurbish	~ 900 GSF	10	0	\$2,000	\$2,600
2131	Asphalt - Seal/Repair	~ 241,300 GSF	4	0	\$36,200	\$44,000
2132	Asphalt - Resurface	~ 237,700 GSF	25	16	\$575,000	\$720,000
2133	Asphalt - Remove & Replace	~ 3,600 GSF	25	0	\$18,000	\$21,600
2151	Site Fencing: Wood - Repair/Paint	~ 4,300 LF	3	2	\$5,000	\$7,000
2157	Site Fencing: Wood - Replace - 15%	15% of ~ 4,300 LF	6	5	\$11,600	\$14,200
2167	Gazebo - Paint/Maintain	(1) Gazebo	5	4	\$2,000	\$2,500
2167	Pump House - Paint/Maintain	(1) Pump House	5	0	\$4,000	\$6,000
2168	Tile Roofs - Replace	~ 3,700 GSF	25	16	\$51,800	\$66,000
2179	Mailboxes - Replace	~ (2) Kiosks	30	21	\$1,500	\$2,800
2181	Entry Monuments - Paint/Maintain	~ (2) Metal, Stone, Wood	5	4	\$5,000	\$7,000
2183	Directional/Street Signs - Replace	~ (6) Cedar Post Signs	20	11	\$1,000	\$1,400
2197	Ponds - Maintain	(3) Ponds	3	0	\$14,000	\$16,000
Mechanical Systems						
2530	High Service Pump - Replace	~ (1) 40HP Pump	20	11	\$8,600	\$9,000
2532	Booster Pumps - Replace	~ (2) Pumps	20	11	\$9,200	\$9,600
2534	Submersible Well Pumps - Replace	~ (2) 7.5 HP Pumps	10	1	\$9,000	\$9,400
2537	Boosters VFD - Replace	(2) VFDs	15	6	\$9,400	\$9,800
2537	High Service Pump VFD - Replace	(1) VFD	15	6	\$17,600	\$18,000
2537	Wells VFD - Replace	(2) VFDs	15	6	\$11,400	\$11,800
2540	Sensaphone - Replace	(1) Sensaphone	8	0	\$1,500	\$2,500
2547	Cummins Generator/Switch - Replace	(1) 100 KW Unit	40	31	\$28,000	\$40,000
2562	Water Storage Tank - Inspect	(1) 24,400 Gallon Tank	5	0	\$2,000	\$3,000
2564	Water Storage Tank Interior - Paint	(1) 24,400 Gallon Tank	15	6	\$30,000	\$40,000
2565	Water Storage Tank Exterior - Paint	(1) 24,400 Gallon Tank	15	6	\$8,000	\$11,000
2589	Irrigation System - Repair	~ (1) System	3	2	\$1,500	\$2,500
2590	Irrigation System - Rebuild	~ (1) System	15	14	\$500,000	\$500,000
28	Total Funded Components					

Table 3: Fully Funded Balance
31243-0

#	Component	Current Cost Estimate	X	Effective Age	/	Useful Life	=	Fully Funded Balance
Sites & Grounds								
2103	Ditch / Culvert - Maintenance	\$1,500	X	1	/	1	=	\$1,500
2115	Concrete Pad - Repair - 5%	\$1,400	X	1	/	5	=	\$280
2129	Trails - Refurbish	\$2,300	X	10	/	10	=	\$2,300
2131	Asphalt - Seal/Repair	\$40,100	X	4	/	4	=	\$40,100
2132	Asphalt - Resurface	\$647,500	X	9	/	25	=	\$233,100
2133	Asphalt - Remove & Replace	\$19,800	X	25	/	25	=	\$19,800
2151	Site Fencing: Wood - Repair/Paint	\$6,000	X	1	/	3	=	\$2,000
2157	Site Fencing: Wood - Replace - 15%	\$12,900	X	1	/	6	=	\$2,150
2167	Gazebo - Paint/Maintain	\$2,250	X	1	/	5	=	\$450
2167	Pump House - Paint/Maintain	\$5,000	X	5	/	5	=	\$5,000
2168	Tile Roofs - Replace	\$58,900	X	9	/	25	=	\$21,204
2179	Mailboxes - Replace	\$2,150	X	9	/	30	=	\$645
2181	Entry Monuments - Paint/Maintain	\$6,000	X	1	/	5	=	\$1,200
2183	Directional/Street Signs - Replace	\$1,200	X	9	/	20	=	\$540
2197	Ponds - Maintain	\$15,000	X	3	/	3	=	\$15,000
Mechanical Systems								
2530	High Service Pump - Replace	\$8,800	X	9	/	20	=	\$3,960
2532	Booster Pumps - Replace	\$9,400	X	9	/	20	=	\$4,230
2534	Submersible Well Pumps - Replace	\$9,200	X	9	/	10	=	\$8,280
2537	Boosters VFD - Replace	\$9,600	X	9	/	15	=	\$5,760
2537	High Service Pump VFD - Replace	\$17,800	X	9	/	15	=	\$10,680
2537	Wells VFD - Replace	\$11,600	X	9	/	15	=	\$6,960
2540	Sensaphone - Replace	\$2,000	X	8	/	8	=	\$2,000
2547	Cummins Generator/Switch - Replace	\$34,000	X	9	/	40	=	\$7,650
2562	Water Storage Tank - Inspect	\$2,500	X	5	/	5	=	\$2,500
2564	Water Storage Tank Interior - Paint	\$35,000	X	9	/	15	=	\$21,000
2565	Water Storage Tank Exterior - Paint	\$9,500	X	9	/	15	=	\$5,700
2589	Irrigation System - Repair	\$2,000	X	1	/	3	=	\$667
2590	Irrigation System - Rebuild	\$500,000	X	1	/	15	=	\$33,333
								\$457,989

Table 4: Component Significance**31243-0**

#	Component	Useful Life	Current Cost Estimate	Deterioration Cost/yr	Deterioration Significance
Sites & Grounds					
2103	Ditch / Culvert - Maintenance	1	\$1,500	\$1,500	1.6%
2115	Concrete Pad - Repair - 5%	5	\$1,400	\$280	0.3%
2129	Trails - Refurbish	10	\$2,300	\$230	0.2%
2131	Asphalt - Seal/Repair	4	\$40,100	\$10,025	10.4%
2132	Asphalt - Resurface	25	\$647,500	\$25,900	27.0%
2133	Asphalt - Remove & Replace	25	\$19,800	\$792	0.8%
2151	Site Fencing: Wood - Repair/Paint	3	\$6,000	\$2,000	2.1%
2157	Site Fencing: Wood - Replace - 15%	6	\$12,900	\$2,150	2.2%
2167	Gazebo - Paint/Maintain	5	\$2,250	\$450	0.5%
2167	Pump House - Paint/Maintain	5	\$5,000	\$1,000	1.0%
2168	Tile Roofs - Replace	25	\$58,900	\$2,356	2.5%
2179	Mailboxes - Replace	30	\$2,150	\$72	0.1%
2181	Entry Monuments - Paint/Maintain	5	\$6,000	\$1,200	1.2%
2183	Directional/Street Signs - Replace	20	\$1,200	\$60	0.1%
2197	Ponds - Maintain	3	\$15,000	\$5,000	5.2%
Mechanical Systems					
2530	High Service Pump - Replace	20	\$8,800	\$440	0.5%
2532	Booster Pumps - Replace	20	\$9,400	\$470	0.5%
2534	Submersible Well Pumps - Replace	10	\$9,200	\$920	1.0%
2537	Boosters VFD - Replace	15	\$9,600	\$640	0.7%
2537	High Service Pump VFD - Replace	15	\$17,800	\$1,187	1.2%
2537	Wells VFD - Replace	15	\$11,600	\$773	0.8%
2540	Sensaphone - Replace	8	\$2,000	\$250	0.3%
2547	Cummins Generator/Switch - Replace	40	\$34,000	\$850	0.9%
2562	Water Storage Tank - Inspect	5	\$2,500	\$500	0.5%
2564	Water Storage Tank Interior - Paint	15	\$35,000	\$2,333	2.4%
2565	Water Storage Tank Exterior - Paint	15	\$9,500	\$633	0.7%
2589	Irrigation System - Repair	3	\$2,000	\$667	0.7%
2590	Irrigation System - Rebuild	15	\$500,000	\$33,333	34.7%
28	Total Funded Components			\$96,011	100.0%

Table 5: 30-Year Reserve Plan Summary
31243-0
Fiscal Year Start: 01/01/17
Interest: 1.0%
Inflation: 3.0%
**Reserve Fund Strength Calculations
(All values as of Fiscal Year Start Date)**
Projected Reserve Balance Changes

Year	Starting Reserve Balance	Fully Funded Balance	Percent Funded	Special Assmt Risk	Reserve Contribs.	Loans or Special Assmts	Interest Income	Reserve Expenses
2017	\$16,906	\$457,989	3.7%	High	\$122,640	\$0	\$343	\$88,200
2018	\$51,688	\$479,774	10.8%	High	\$126,319	\$0	\$1,098	\$11,021
2019	\$168,085	\$584,674	28.7%	High	\$130,109	\$0	\$2,291	\$10,079
2020	\$290,407	\$696,748	41.7%	Med	\$134,012	\$0	\$3,500	\$18,030
2021	\$409,889	\$807,141	50.8%	Med	\$138,032	\$0	\$4,521	\$57,682
2022	\$494,760	\$883,246	56.0%	Med	\$142,173	\$0	\$5,510	\$34,662
2023	\$607,782	\$988,684	61.5%	Med	\$146,439	\$0	\$6,242	\$119,405
2024	\$641,057	\$1,013,439	63.3%	Med	\$150,832	\$0	\$7,188	\$1,845
2025	\$797,232	\$1,163,566	68.5%	Med	\$155,357	\$0	\$8,461	\$65,365
2026	\$895,684	\$1,256,420	71.3%	Low	\$160,017	\$0	\$9,630	\$34,120
2027	\$1,031,212	\$1,388,000	74.3%	Low	\$164,818	\$0	\$11,111	\$15,186
2028	\$1,191,955	\$1,546,900	77.1%	Low	\$169,762	\$0	\$12,472	\$70,596
2029	\$1,303,594	\$1,657,483	78.6%	Low	\$174,855	\$0	\$13,569	\$80,698
2030	\$1,411,320	\$1,765,084	80.0%	Low	\$180,101	\$0	\$15,072	\$2,203
2031	\$1,604,290	\$1,960,993	81.8%	Low	\$185,504	\$0	\$13,104	\$785,261
2032	\$1,017,637	\$1,360,587	74.8%	Low	\$191,069	\$0	\$10,995	\$37,391
2033	\$1,182,310	\$1,516,962	77.9%	Low	\$196,801	\$0	\$6,821	\$1,203,530
2034	\$182,402	\$481,527	37.9%	Med	\$202,705	\$0	\$2,665	\$37,024
2035	\$350,748	\$621,291	56.5%	Med	\$208,786	\$0	\$4,431	\$28,090
2036	\$535,875	\$779,353	68.8%	Med	\$215,050	\$0	\$6,365	\$19,552
2037	\$737,739	\$956,003	77.2%	Low	\$221,501	\$0	\$7,985	\$107,283
2038	\$859,943	\$1,052,791	81.7%	Low	\$228,147	\$0	\$8,744	\$207,144
2039	\$889,690	\$1,054,984	84.3%	Low	\$234,991	\$0	\$10,104	\$2,874
2040	\$1,131,910	\$1,273,160	88.9%	Low	\$242,041	\$0	\$12,365	\$44,208
2041	\$1,342,107	\$1,460,991	91.9%	Low	\$249,302	\$0	\$14,038	\$138,738
2042	\$1,466,709	\$1,562,947	93.8%	Low	\$256,781	\$0	\$15,721	\$60,301
2043	\$1,678,911	\$1,754,783	95.7%	Low	\$264,484	\$0	\$18,092	\$20,488
2044	\$1,940,999	\$1,999,593	97.1%	Low	\$272,419	\$0	\$20,683	\$36,651
2045	\$2,197,450	\$2,241,497	98.0%	Low	\$280,591	\$0	\$23,007	\$95,178
2046	\$2,405,871	\$2,436,966	98.7%	Low	\$289,009	\$0	\$19,323	\$1,253,811

Table 6: 30-Year Income/Expense Detail (yrs 0 through 4)**31243-0**

Fiscal Year	2017	2018	2019	2020	2021
Starting Reserve Balance	\$16,906	\$51,688	\$168,085	\$290,407	\$409,889
Annual Reserve Contribution	\$122,640	\$126,319	\$130,109	\$134,012	\$138,032
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$343	\$1,098	\$2,291	\$3,500	\$4,521
Total Income	\$139,888	\$179,106	\$300,485	\$427,919	\$552,443
# Component					
Sites & Grounds					
2103 Ditch / Culvert - Maintenance	\$1,500	\$1,545	\$1,591	\$1,639	\$1,688
2115 Concrete Pad - Repair - 5%	\$0	\$0	\$0	\$0	\$1,576
2129 Trails - Refurbish	\$2,300	\$0	\$0	\$0	\$0
2131 Asphalt - Seal/Repair	\$40,100	\$0	\$0	\$0	\$45,133
2132 Asphalt - Resurface	\$0	\$0	\$0	\$0	\$0
2133 Asphalt - Remove & Replace	\$19,800	\$0	\$0	\$0	\$0
2151 Site Fencing: Wood - Repair/Paint	\$0	\$0	\$6,365	\$0	\$0
2157 Site Fencing: Wood - Replace - 15%	\$0	\$0	\$0	\$0	\$0
2167 Gazebo - Paint/Maintain	\$0	\$0	\$0	\$0	\$2,532
2167 Pump House - Paint/Maintain	\$5,000	\$0	\$0	\$0	\$0
2168 Tile Roofs - Replace	\$0	\$0	\$0	\$0	\$0
2179 Mailboxes - Replace	\$0	\$0	\$0	\$0	\$0
2181 Entry Monuments - Paint/Maintain	\$0	\$0	\$0	\$0	\$6,753
2183 Directional/Street Signs - Replace	\$0	\$0	\$0	\$0	\$0
2197 Ponds - Maintain	\$15,000	\$0	\$0	\$16,391	\$0
Mechanical Systems					
2530 High Service Pump - Replace	\$0	\$0	\$0	\$0	\$0
2532 Booster Pumps - Replace	\$0	\$0	\$0	\$0	\$0
2534 Submersible Well Pumps - Replace	\$0	\$9,476	\$0	\$0	\$0
2537 Boosters VFD - Replace	\$0	\$0	\$0	\$0	\$0
2537 High Service Pump VFD - Replace	\$0	\$0	\$0	\$0	\$0
2537 Wells VFD - Replace	\$0	\$0	\$0	\$0	\$0
2540 Sensaphone - Replace	\$2,000	\$0	\$0	\$0	\$0
2547 Cummins Generator/Switch - Replace	\$0	\$0	\$0	\$0	\$0
2562 Water Storage Tank - Inspect	\$2,500	\$0	\$0	\$0	\$0
2564 Water Storage Tank Interior - Paint	\$0	\$0	\$0	\$0	\$0
2565 Water Storage Tank Exterior - Paint	\$0	\$0	\$0	\$0	\$0
2589 Irrigation System - Repair	\$0	\$0	\$2,122	\$0	\$0
2590 Irrigation System - Rebuild	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$88,200	\$11,021	\$10,079	\$18,030	\$57,682
Ending Reserve Balance:	\$51,688	\$168,085	\$290,407	\$409,889	\$494,760

Table 6: 30-Year Income/Expense Detail (yrs 5 through 9)**31243-0**

Fiscal Year	2022	2023	2024	2025	2026
Starting Reserve Balance	\$494,760	\$607,782	\$641,057	\$797,232	\$895,684
Annual Reserve Contribution	\$142,173	\$146,439	\$150,832	\$155,357	\$160,017
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$5,510	\$6,242	\$7,188	\$8,461	\$9,630
Total Income	\$642,444	\$760,462	\$799,077	\$961,049	\$1,065,332
# Component					

Sites & Grounds

2103	Ditch / Culvert - Maintenance	\$1,739	\$1,791	\$1,845	\$1,900	\$1,957
2115	Concrete Pad - Repair - 5%	\$0	\$0	\$0	\$0	\$1,827
2129	Trails - Refurbish	\$0	\$0	\$0	\$0	\$0
2131	Asphalt - Seal/Repair	\$0	\$0	\$0	\$50,797	\$0
2132	Asphalt - Resurface	\$0	\$0	\$0	\$0	\$0
2133	Asphalt - Remove & Replace	\$0	\$0	\$0	\$0	\$0
2151	Site Fencing: Wood - Repair/Paint	\$6,956	\$0	\$0	\$7,601	\$0
2157	Site Fencing: Wood - Replace - 15%	\$14,955	\$0	\$0	\$0	\$0
2167	Gazebo - Paint/Maintain	\$0	\$0	\$0	\$0	\$2,936
2167	Pump House - Paint/Maintain	\$5,796	\$0	\$0	\$0	\$0
2168	Tile Roofs - Replace	\$0	\$0	\$0	\$0	\$0
2179	Mailboxes - Replace	\$0	\$0	\$0	\$0	\$0
2181	Entry Monuments - Paint/Maintain	\$0	\$0	\$0	\$0	\$7,829
2183	Directional/Street Signs - Replace	\$0	\$0	\$0	\$0	\$0
2197	Ponds - Maintain	\$0	\$17,911	\$0	\$0	\$19,572

Mechanical Systems

2530	High Service Pump - Replace	\$0	\$0	\$0	\$0	\$0
2532	Booster Pumps - Replace	\$0	\$0	\$0	\$0	\$0
2534	Submersible Well Pumps - Replace	\$0	\$0	\$0	\$0	\$0
2537	Boosters VFD - Replace	\$0	\$11,463	\$0	\$0	\$0
2537	High Service Pump VFD - Replace	\$0	\$21,254	\$0	\$0	\$0
2537	Wells VFD - Replace	\$0	\$13,851	\$0	\$0	\$0
2540	Sensaphone - Replace	\$0	\$0	\$0	\$2,534	\$0
2547	Cummins Generator/Switch - Replace	\$0	\$0	\$0	\$0	\$0
2562	Water Storage Tank - Inspect	\$2,898	\$0	\$0	\$0	\$0
2564	Water Storage Tank Interior - Paint	\$0	\$41,792	\$0	\$0	\$0
2565	Water Storage Tank Exterior - Paint	\$0	\$11,343	\$0	\$0	\$0
2589	Irrigation System - Repair	\$2,319	\$0	\$0	\$2,534	\$0
2590	Irrigation System - Rebuild	\$0	\$0	\$0	\$0	\$0
Total Expenses		\$34,662	\$119,405	\$1,845	\$65,365	\$34,120
Ending Reserve Balance:		\$607,782	\$641,057	\$797,232	\$895,684	\$1,031,212

Table 6: 30-Year Income/Expense Detail (yrs 10 through 14)**31243-0**

Fiscal Year	2027	2028	2029	2030	2031
Starting Reserve Balance	\$1,031,212	\$1,191,955	\$1,303,594	\$1,411,320	\$1,604,290
Annual Reserve Contribution	\$164,818	\$169,762	\$174,855	\$180,101	\$185,504
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$11,111	\$12,472	\$13,569	\$15,072	\$13,104
Total Income	\$1,207,141	\$1,374,190	\$1,492,018	\$1,606,492	\$1,802,898
# Component					
Sites & Grounds					
2103 Ditch / Culvert - Maintenance	\$2,016	\$2,076	\$2,139	\$2,203	\$2,269
2115 Concrete Pad - Repair - 5%	\$0	\$0	\$0	\$0	\$2,118
2129 Trails - Refurbish	\$3,091	\$0	\$0	\$0	\$0
2131 Asphalt - Seal/Repair	\$0	\$0	\$57,173	\$0	\$0
2132 Asphalt - Resurface	\$0	\$0	\$0	\$0	\$0
2133 Asphalt - Remove & Replace	\$0	\$0	\$0	\$0	\$0
2151 Site Fencing: Wood - Repair/Paint	\$0	\$8,305	\$0	\$0	\$9,076
2157 Site Fencing: Wood - Replace - 15%	\$0	\$17,857	\$0	\$0	\$0
2167 Gazebo - Paint/Maintain	\$0	\$0	\$0	\$0	\$3,403
2167 Pump House - Paint/Maintain	\$6,720	\$0	\$0	\$0	\$0
2168 Tile Roofs - Replace	\$0	\$0	\$0	\$0	\$0
2179 Mailboxes - Replace	\$0	\$0	\$0	\$0	\$0
2181 Entry Monuments - Paint/Maintain	\$0	\$0	\$0	\$0	\$9,076
2183 Directional/Street Signs - Replace	\$0	\$1,661	\$0	\$0	\$0
2197 Ponds - Maintain	\$0	\$0	\$21,386	\$0	\$0
Mechanical Systems					
2530 High Service Pump - Replace	\$0	\$12,181	\$0	\$0	\$0
2532 Booster Pumps - Replace	\$0	\$13,012	\$0	\$0	\$0
2534 Submersible Well Pumps - Replace	\$0	\$12,735	\$0	\$0	\$0
2537 Boosters VFD - Replace	\$0	\$0	\$0	\$0	\$0
2537 High Service Pump VFD - Replace	\$0	\$0	\$0	\$0	\$0
2537 Wells VFD - Replace	\$0	\$0	\$0	\$0	\$0
2540 Sensaphone - Replace	\$0	\$0	\$0	\$0	\$0
2547 Cummins Generator/Switch - Replace	\$0	\$0	\$0	\$0	\$0
2562 Water Storage Tank - Inspect	\$3,360	\$0	\$0	\$0	\$0
2564 Water Storage Tank Interior - Paint	\$0	\$0	\$0	\$0	\$0
2565 Water Storage Tank Exterior - Paint	\$0	\$0	\$0	\$0	\$0
2589 Irrigation System - Repair	\$0	\$2,768	\$0	\$0	\$3,025
2590 Irrigation System - Rebuild	\$0	\$0	\$0	\$0	\$756,295
Total Expenses	\$15,186	\$70,596	\$80,698	\$2,203	\$785,261
Ending Reserve Balance:	\$1,191,955	\$1,303,594	\$1,411,320	\$1,604,290	\$1,017,637

Table 6: 30-Year Income/Expense Detail (yrs 15 through 19)**31243-0**

Fiscal Year	2032	2033	2034	2035	2036
Starting Reserve Balance	\$1,017,637	\$1,182,310	\$182,402	\$350,748	\$535,875
Annual Reserve Contribution	\$191,069	\$196,801	\$202,705	\$208,786	\$215,050
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$10,995	\$6,821	\$2,665	\$4,431	\$6,365
Total Income	\$1,219,701	\$1,385,932	\$387,772	\$563,965	\$757,291
# Component					
Sites & Grounds					
2103 Ditch / Culvert - Maintenance	\$2,337	\$2,407	\$2,479	\$2,554	\$2,630
2115 Concrete Pad - Repair - 5%	\$0	\$0	\$0	\$0	\$2,455
2129 Trails - Refurbish	\$0	\$0	\$0	\$0	\$0
2131 Asphalt - Seal/Repair	\$0	\$64,349	\$0	\$0	\$0
2132 Asphalt - Resurface	\$0	\$1,039,047	\$0	\$0	\$0
2133 Asphalt - Remove & Replace	\$0	\$0	\$0	\$0	\$0
2151 Site Fencing: Wood - Repair/Paint	\$0	\$0	\$9,917	\$0	\$0
2157 Site Fencing: Wood - Replace - 15%	\$0	\$0	\$21,322	\$0	\$0
2167 Gazebo - Paint/Maintain	\$0	\$0	\$0	\$0	\$3,945
2167 Pump House - Paint/Maintain	\$7,790	\$0	\$0	\$0	\$0
2168 Tile Roofs - Replace	\$0	\$94,517	\$0	\$0	\$0
2179 Mailboxes - Replace	\$0	\$0	\$0	\$0	\$0
2181 Entry Monuments - Paint/Maintain	\$0	\$0	\$0	\$0	\$10,521
2183 Directional/Street Signs - Replace	\$0	\$0	\$0	\$0	\$0
2197 Ponds - Maintain	\$23,370	\$0	\$0	\$25,536	\$0
Mechanical Systems					
2530 High Service Pump - Replace	\$0	\$0	\$0	\$0	\$0
2532 Booster Pumps - Replace	\$0	\$0	\$0	\$0	\$0
2534 Submersible Well Pumps - Replace	\$0	\$0	\$0	\$0	\$0
2537 Boosters VFD - Replace	\$0	\$0	\$0	\$0	\$0
2537 High Service Pump VFD - Replace	\$0	\$0	\$0	\$0	\$0
2537 Wells VFD - Replace	\$0	\$0	\$0	\$0	\$0
2540 Sensaphone - Replace	\$0	\$3,209	\$0	\$0	\$0
2547 Cummins Generator/Switch - Replace	\$0	\$0	\$0	\$0	\$0
2562 Water Storage Tank - Inspect	\$3,895	\$0	\$0	\$0	\$0
2564 Water Storage Tank Interior - Paint	\$0	\$0	\$0	\$0	\$0
2565 Water Storage Tank Exterior - Paint	\$0	\$0	\$0	\$0	\$0
2589 Irrigation System - Repair	\$0	\$0	\$3,306	\$0	\$0
2590 Irrigation System - Rebuild	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$37,391	\$1,203,530	\$37,024	\$28,090	\$19,552
Ending Reserve Balance:	\$1,182,310	\$182,402	\$350,748	\$535,875	\$737,739

Table 6: 30-Year Income/Expense Detail (yrs 20 through 24)**31243-0**

Fiscal Year	2037	2038	2039	2040	2041
Starting Reserve Balance	\$737,739	\$859,943	\$889,690	\$1,131,910	\$1,342,107
Annual Reserve Contribution	\$221,501	\$228,147	\$234,991	\$242,041	\$249,302
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$7,985	\$8,744	\$10,104	\$12,365	\$14,038
Total Income	\$967,226	\$1,096,834	\$1,134,784	\$1,386,316	\$1,605,447
# Component					
Sites & Grounds					
2103 Ditch / Culvert - Maintenance	\$2,709	\$2,790	\$2,874	\$2,960	\$3,049
2115 Concrete Pad - Repair - 5%	\$0	\$0	\$0	\$0	\$2,846
2129 Trails - Refurbish	\$4,154	\$0	\$0	\$0	\$0
2131 Asphalt - Seal/Repair	\$72,425	\$0	\$0	\$0	\$81,515
2132 Asphalt - Resurface	\$0	\$0	\$0	\$0	\$0
2133 Asphalt - Remove & Replace	\$0	\$0	\$0	\$0	\$0
2151 Site Fencing: Wood - Repair/Paint	\$10,837	\$0	\$0	\$11,842	\$0
2157 Site Fencing: Wood - Replace - 15%	\$0	\$0	\$0	\$25,459	\$0
2167 Gazebo - Paint/Maintain	\$0	\$0	\$0	\$0	\$4,574
2167 Pump House - Paint/Maintain	\$9,031	\$0	\$0	\$0	\$0
2168 Tile Roofs - Replace	\$0	\$0	\$0	\$0	\$0
2179 Mailboxes - Replace	\$0	\$4,000	\$0	\$0	\$0
2181 Entry Monuments - Paint/Maintain	\$0	\$0	\$0	\$0	\$12,197
2183 Directional/Street Signs - Replace	\$0	\$0	\$0	\$0	\$0
2197 Ponds - Maintain	\$0	\$27,904	\$0	\$0	\$30,492
Mechanical Systems					
2530 High Service Pump - Replace	\$0	\$0	\$0	\$0	\$0
2532 Booster Pumps - Replace	\$0	\$0	\$0	\$0	\$0
2534 Submersible Well Pumps - Replace	\$0	\$17,115	\$0	\$0	\$0
2537 Boosters VFD - Replace	\$0	\$17,859	\$0	\$0	\$0
2537 High Service Pump VFD - Replace	\$0	\$33,113	\$0	\$0	\$0
2537 Wells VFD - Replace	\$0	\$21,579	\$0	\$0	\$0
2540 Sensaphone - Replace	\$0	\$0	\$0	\$0	\$4,066
2547 Cummins Generator/Switch - Replace	\$0	\$0	\$0	\$0	\$0
2562 Water Storage Tank - Inspect	\$4,515	\$0	\$0	\$0	\$0
2564 Water Storage Tank Interior - Paint	\$0	\$65,110	\$0	\$0	\$0
2565 Water Storage Tank Exterior - Paint	\$0	\$17,673	\$0	\$0	\$0
2589 Irrigation System - Repair	\$3,612	\$0	\$0	\$3,947	\$0
2590 Irrigation System - Rebuild	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$107,283	\$207,144	\$2,874	\$44,208	\$138,738
Ending Reserve Balance:	\$859,943	\$889,690	\$1,131,910	\$1,342,107	\$1,466,709

Table 6: 30-Year Income/Expense Detail (yrs 25 through 29)**31243-0**

Fiscal Year	2042	2043	2044	2045	2046
Starting Reserve Balance	\$1,466,709	\$1,678,911	\$1,940,999	\$2,197,450	\$2,405,871
Annual Reserve Contribution	\$256,781	\$264,484	\$272,419	\$280,591	\$289,009
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$15,721	\$18,092	\$20,683	\$23,007	\$19,323
Total Income	\$1,739,212	\$1,961,487	\$2,234,102	\$2,501,049	\$2,714,203
# Component					
Sites & Grounds					
2103 Ditch / Culvert - Maintenance	\$3,141	\$3,235	\$3,332	\$3,432	\$3,535
2115 Concrete Pad - Repair - 5%	\$0	\$0	\$0	\$0	\$3,299
2129 Trails - Refurbish	\$0	\$0	\$0	\$0	\$0
2131 Asphalt - Seal/Repair	\$0	\$0	\$0	\$91,746	\$0
2132 Asphalt - Resurface	\$0	\$0	\$0	\$0	\$0
2133 Asphalt - Remove & Replace	\$41,457	\$0	\$0	\$0	\$0
2151 Site Fencing: Wood - Repair/Paint	\$0	\$12,940	\$0	\$0	\$14,139
2157 Site Fencing: Wood - Replace - 15%	\$0	\$0	\$0	\$0	\$30,400
2167 Gazebo - Paint/Maintain	\$0	\$0	\$0	\$0	\$5,302
2167 Pump House - Paint/Maintain	\$10,469	\$0	\$0	\$0	\$0
2168 Tile Roofs - Replace	\$0	\$0	\$0	\$0	\$0
2179 Mailboxes - Replace	\$0	\$0	\$0	\$0	\$0
2181 Entry Monuments - Paint/Maintain	\$0	\$0	\$0	\$0	\$14,139
2183 Directional/Street Signs - Replace	\$0	\$0	\$0	\$0	\$0
2197 Ponds - Maintain	\$0	\$0	\$33,319	\$0	\$0
Mechanical Systems					
2530 High Service Pump - Replace	\$0	\$0	\$0	\$0	\$0
2532 Booster Pumps - Replace	\$0	\$0	\$0	\$0	\$0
2534 Submersible Well Pumps - Replace	\$0	\$0	\$0	\$0	\$0
2537 Boosters VFD - Replace	\$0	\$0	\$0	\$0	\$0
2537 High Service Pump VFD - Replace	\$0	\$0	\$0	\$0	\$0
2537 Wells VFD - Replace	\$0	\$0	\$0	\$0	\$0
2540 Sensaphone - Replace	\$0	\$0	\$0	\$0	\$0
2547 Cummins Generator/Switch - Replace	\$0	\$0	\$0	\$0	\$0
2562 Water Storage Tank - Inspect	\$5,234	\$0	\$0	\$0	\$0
2564 Water Storage Tank Interior - Paint	\$0	\$0	\$0	\$0	\$0
2565 Water Storage Tank Exterior - Paint	\$0	\$0	\$0	\$0	\$0
2589 Irrigation System - Repair	\$0	\$4,313	\$0	\$0	\$4,713
2590 Irrigation System - Rebuild	\$0	\$0	\$0	\$0	\$1,178,283
Total Expenses	\$60,301	\$20,488	\$36,651	\$95,178	\$1,253,811
Ending Reserve Balance:	\$1,678,911	\$1,940,999	\$2,197,450	\$2,405,871	\$1,460,392

Accuracy, Limitations, and Disclosures

The reserve study should be reviewed carefully. It may not include all common and limited common element components that will require major maintenance, repair or replacement in future years, and may not include regular contributions to a reserve account for the cost of such maintenance, repair, or replacement. The failure to include a component in a reserve study, or to provide contributions to a reserve account for a component, may, under some circumstances, require you to pay on demand as a special assessment your share of common expenses for the cost of major maintenance, repair or replacement of a reserve component.

Because we have no control over future events, we do not expect that all the events we anticipate will occur as planned. We expect that inflationary trends will continue, and we expect Reserve funds to continue to earn interest, so we believe that reasonable estimates for these figures are much more accurate than ignoring these economic realities. We can control measurements, which we attempt to establish within 5% accuracy through a combination of on-site measurements, drawings, and satellite imagery. The starting Reserve Balance and interest rate earned on deposited Reserve funds that you provided to us were considered reliable and were not confirmed independently. We have considered the association's representation of current and historical Reserve projects reliable, and we have considered the representations made by its vendors and suppliers to also be accurate and reliable. Component Useful Life, Remaining Useful Life, and Current Cost estimates assume a stable economic environment and lack of natural disasters.

Because the physical condition of your components, the association's Reserve balance, the economic environment, and legislative environment change each year, this Reserve Study is by nature a "one-year" document. Because a long-term perspective improves the accuracy of near-term planning, this Report projects expenses for the next 30 years. It is our recommendation and that of the Financial Accounting Standards Board (FASB) that your Reserve Study be updated each year as part of the annual budget process.

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

Component quantities indicated in this Report were developed by Association Reserves unless otherwise noted. No destructive or intrusive testing was performed. This Report and this site inspection were accomplished only for Reserve budget purposes (to help identify and address the normal deterioration of properly built and installed components with predictable life expectancies). The Funding Plan in this Report was developed using the cash-flow methodology to achieve the specified Funding Objective.

Association Reserves' liability in any matter involving this Reserve Study is limited to our Fee for services rendered.

Terms and Definitions

BTU	British Thermal Unit (a standard unit of energy)
DIA	Diameter
GSF	Gross Square Feet (area). Equivalent to Square Feet
GSY	Gross Square Yards (area). Equivalent to Square Yards
HP	Horsepower
LF	Linear Feet (length)

Effective Age: The difference between Useful Life and Remaining Useful Life. Note that this is not necessarily equivalent to the chronological age of the component.

Fully Funded Balance (FFB): The 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.

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

Inflation: Cost factors are adjusted for inflation at the rate defined in the Executive Summary and compounded annually. These increasing costs can be seen as you follow the recurring cycles of a component on Table 6.

Interest: Interest earnings on Reserve Funds are calculated using the average balance for the year (taking into account income and expenses through the year) and compounded monthly using the rate defined in the Executive Summary. Annual interest earning assumption appears in the Executive Summary.

Percent Funded: 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.

Remaining Useful Life (RUL): The estimated time, in years, that a common area component can be expected to continue to serve its intended function.

Useful Life (UL): 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 area maintenance repair & replacement responsibility
- 2) Components must have a limited life
- 3) Life limit must be predictable
- 4) Above a minimum threshold cost (board's discretion – typically 1/2 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 costs, 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.

Component Details

Sites / Grounds

Comp #: 2103 Ditch / Culvert - Maintenance

Quantity: ~ (1) Culvert/Ditch

Location: Common areas

Funded?: Yes.

History:

Evaluation: There is one (1) ditch/culvert on the property. This is maintained yearly spending \$1,000 per year. Maintenance includes clearing out of debris to avoid water stoppage. If properly installed without defect, the elements within this system are generally low-cost and have a failure rate that is difficult to predict, however, funding included at the request of the contact.

Useful Life:

1 years

Remaining Life:

0 years



Best Case: \$ 1,000
Lower allowance

Worst Case: \$ 2,000
Higher allowance

Cost Source: Client Cost History

Comp #: 2115 Concrete Pad - Repair - 5%

Quantity: 5% of ~ 2,100 GSF

Location: Common areas

Funded?: Yes.

History:

Evaluation: The concrete pad is located under the gazebo. The concrete was observed to be in good condition with no problems noted at the time of inspection. 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:
4 years



Best Case: \$ 1,200
Lower allowance

Worst Case: \$ 1,600
Higher allowance

Cost Source: Allowance

Comp #: 2129 Trails - Refurbish

Quantity: ~ 900 GSF

Location: Common areas

Funded?: Yes.

History:

Evaluation: There is a small gravel trail which leads to the gazebo. Overall poor conditions were observed at the time of inspection. Gravel was being overtaken by weeds and the gravel appeared to be experiencing erosion. Although ongoing refurbishing/replenishment should be part of annual maintenance program, we recommend including a funding allowance in reserves for periodic larger projects to maintain / rebuild some of these areas. Track expenses and make adjustments to this component in reserve study updates if needed.

Useful Life:
10 years

Remaining Life:
0 years



Best Case: \$ 2,000
Lower allowance

Worst Case: \$ 2,600
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 2131 Asphalt - Seal/Repair

Quantity: ~ 241,300 GSF

Location: Streets

Funded?: Yes.

History:

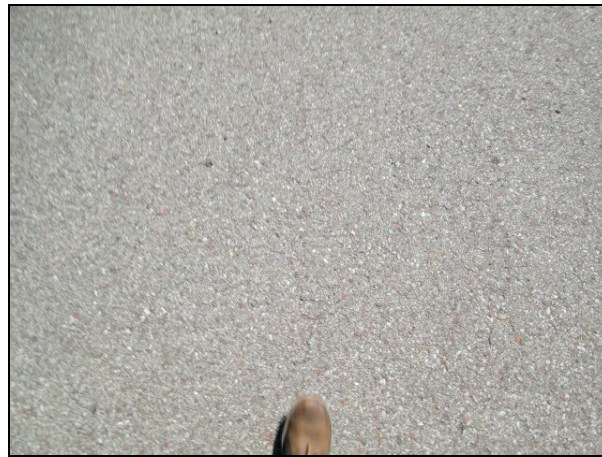
Evaluation: The seal was observed to be in poor condition. The aggregate was exposed and the seal appeared to be faded and heavily weathered. No seal coatings have taken place since the property was established in 2008. Regular cycles of seal coating (along with any needed repair) has proven to be the 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.

Useful Life:

4 years

Remaining Life:

0 years



Best Case: \$ 36,200
Lower allowance

Worst Case: \$ 44,000
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 2132 Asphalt - Resurface

Quantity: ~ 237,700 GSF

Location: Streets

Funded?: Yes.

History:

Evaluation: Please note that the quantity does not include the cul-de-sac located at the most northernly point. Plan to seal the asphalt soon. Overall good conditions were noted throughout the entire property. 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.

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:
16 years



Best Case: \$ 575,000
Lower allowance

Worst Case: \$ 720,000
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 2133 Asphalt - Remove & Replace

Quantity: ~ 3,600 GSF

Location: Cul-de-sac

Funded?: Yes.

History:

Evaluation: The section located at the most northern point of the property was noted to be in poor condition, and needs to be removed and replaced. Reported that the section has sunk into the ground.

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.

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:

0 years



Best Case: \$ 18,000

Lower allowance

Worst Case: \$ 21,600

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 2151 Site Fencing: Wood - Repair/Paint

Quantity: ~ 4,300 LF

Location: Common areas

Funded?: Yes.

History: Stained in 2016

Evaluation: The finish on the wood fence appeared in generally good condition. Reportedly the fence was stained/painted in 2016 for ~ \$6,000.

Regular sealer applications are recommended for the appearance, protection, and maximum useful life of the wood. Actual timing of staining will vary based on exposure and quality of material and application. In our experience, quality solid-bodied stain typically produces best result. Remove any unnecessary contact with ground and surrounding landscape and sprinkler patterns. Repair as needed and clean prior to sealer application.

There are three general options for finishing wood fences. The first and least expensive option is to leave it unfinished. The second option is regular cycles of penetrating water repellent (typically clear or semi-transparent). The third option is painting or staining. The first option typically has a shorter useful life and perhaps a lower life-cycle cost than staining/painting. Left unfinished, the wood will "gray" from its exposure to weather and often exhibit mildew - the lesser appearance may adversely affect marketability however. The second option to apply a penetrating stain is similar to painting, in that it will extend the life of the wood fence. The costs for applying the penetrating water repellent can be much less than staining, but needs to be done more often (every two to three years). Using a quality stain is often thought to best balance the objectives of the association and is therefore factored below.

Useful Life:
3 years

Remaining Life:
2 years



Best Case: \$ 5,000
Lower allowance

Worst Case: \$ 7,000
Higher allowance

Cost Source: Client Cost History

Comp #: 2157 Site Fencing: Wood - Replace - 15%

Quantity: 15% of ~ 4,300 LF

Location: Common areas

Funded?: Yes.

History: Allowance is based on 25% replacement

Evaluation: No major problems were observed at the time of inspection. There is no expectation of full replacement at one time. The cedar posts were installed into the dirt with no concrete, which may make them deteriorate a faster then if they were installed with a concrete footing 18" x 430. 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. Plan to replace at roughly the time frame below with funding included here for similar wood replacement. At next replacement, association 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:

6 years

Remaining Life:

5 years



Best Case: \$ 11,600
Lower allowance

Worst Case: \$ 14,200
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 2165 Retaining Walls - Repair

Quantity: ~ 240 LF

Location: Common areas

Funded?: No. Unpredictable scope

History:

Evaluation: The retaining wall was located at the entrance to the property. No problems were noted at the time of inspection. No significant or widespread cracking, settling or other problems observed. Assumed to have been properly designed and installed with adequate base and surrounding drainage. Inspect regularly, repair as needed from Operating budget. If shifting, cracking, etc. are observed, consult with civil or geotechnical engineer for repair scope. At this time, no expectation of large scale repairs or replacement; no Reserve funding recommended.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 2167 Gazebo - Paint/Maintain**Quantity: (1) Gazebo**

Location: Common areas

Funded?: Yes.

History: Stained in 2016

Evaluation: There was one (1) gazebo on the property. The gazebo included one 1,100 GSF roof, one (1) stone fireplace, stone areas measuring 1,100 GSF. No issues were observed or reported at the time of inspection. The roof was concrete tile, the masonry appeared to be in good condition. With ordinary care and maintenance, plan for replacement at roughly the interval indicated below due to deterioration that will result from constant exposure. Local repairs between large scale replacements can be funded as general maintenance item. Clean and paint/stain along with other larger projects (building exteriors, fencing, etc.) or as general maintenance (not separate reserve item) to preserve the wood and extend the useful life.

Useful Life:
5 years

Remaining Life:
4 years



Best Case: \$ 2,000
Lower allowance

Worst Case: \$ 2,500
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 2167 Pump House - Paint/Maintain

Quantity: (1) Pump House

Location: Common areas

Funded?: Yes.

History:

Evaluation: There was one (1) pump house on the property. We did not have access to the interior of the pump house at the time of inspection. Reportedly this building was not stained at the same time as the 2016 staining project, so it will likely need to be stained in the near future. The building was noted to have a tile roof with concrete shingles measuring 990 GSF. There was 750 GSF of siding on the building. The building included two (2) utility doors and one (1) garage door.

Useful Life:
5 years

Remaining Life:
0 years



Best Case: \$ 4,000
Lower allowance

Worst Case: \$ 6,000
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 2168 Tile Roofs - Replace**Quantity: ~ 3,700 GSF**

Location: Common areas

Funded?: Yes.

History:

Evaluation: Pump House = ~ 1,100 GSF, Gazebo = ~1,100 GSF, Entry Monuments = ~1,400 GSF, Mailbox Kiosks = ~200 GSF. Roofing consists of tiles over underlayment. Typical replacement includes removal and replacement of tiles and underlayment, with repairs to any damaged substrate made as needed. Tile roofing is typically a long-lived component assuming it was properly installed and is properly maintained. As routine maintenance, many manufacturers recommend inspections at least twice annually (once in the fall, before the rainy season, and again in the spring) and after large storm events. Promptly replace any damaged/missing sections or conduct any other repair needed to ensure waterproof integrity of roof. We recommend having roof inspected in greater detail (including conditions of sub-surface materials) by an independent roofing consultant prior to replacement. There is a wealth of information available through 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:

25 years

Remaining Life:

16 years



Best Case: \$ 51,800
Lower allowance

Worst Case: \$ 66,000
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 2179 Mailboxes - Replace**Quantity: ~ (2) Kiosks**

Location: Common areas

Funded?: Yes.

History: The mailbox kiosk areas were last stained in 2016.

Evaluation: There are two (2) mail kiosks on the property. Each kiosk is 10x10, with a tile roof, stone siding and has two (2) light fixtures. In total there are twenty-eight (28) mail boxes and three (3) parcel boxes. Reportedly these two areas were stained in 2016. There were no issues observed or reported. The roofs have concrete tile. The stone masonry was noted to be in good condition. General refurbishment will be included with this allowance - for staining and the eventual replacement of the roofs. 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:
21 years



Best Case: \$ 1,500
Lower allowance

Worst Case: \$ 2,800
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 2181 Entry Monuments - Paint/Maintain

Quantity: ~ (2) Metal, Stone,
Wood

Location: Entry

Funded?: Yes.

History: Wood portions were stained in 2016.

Evaluation: There were two (2) entry monuments on the property. Together there were (8) light fixtures, 3,000 GSF of stone masonry, 1,200 GSF of wood siding, two (2) metal signs and 670 GSF of concrete tile roofing. Overall good conditions were noted, with no obvious issues at the time of inspection. The allowance is for general refurbishment including staining and the eventual replacement of the roofs. Inspect regularly, clean for appearance and repair as needed from general Operating funds. Best to plan for regular intervals of complete replacement at the time frame indicated below, to maintain functionality and a quality appearance as located in highly exposed areas. When replacement pieces are being evaluated, the association should place additional value on materials that require less maintenance, such as metal, stone, or a composite material.

Useful Life:
5 years

Remaining Life:
4 years



Best Case: \$ 5,000
Lower allowance

Worst Case: \$ 7,000
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 2183 Directional/Street Signs - Replace**Quantity: ~ (6) Cedar Post Signs**

Location: Throughout common areas

Funded?: Yes.

History:

Evaluation: At the time of inspection, overall good conditions were noted. There were not problems observed or reported. The cedar posts were not installed in concrete, which may require replacement sooner than if concrete were used. Decorative street signs and posts are generally replaced at long intervals due to constant weathering and deterioration. As a routine Operating expense, signs should be inspected to make sure visibility is adequate, including at night. Repair any damaged or leaning posts as needed. In our experience, associations should replace signage at the rough interval shown below in order to maintain good aesthetic standards in keeping with the local area.

Useful Life:
20 yearsRemaining Life:
11 yearsBest Case: \$ 1,000
Lower allowanceWorst Case: \$ 1,400
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 2195 Landscaping - Refurbish**Quantity: Landscaping**

Location: Common areas

Funded?: No.

History:

Evaluation: Reported by the contact to be an operating expense. At this time, there is no reported expectation for major projects requiring Reserve funding. Monitor and include funding in Reserve Study updates if needed.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 2197 Ponds - Maintain**Quantity: (3) Ponds**

Location: Common areas

Funded?: Yes.

History:

Evaluation: There are three (3) ponds on the property. Only two (2) of the ponds have water at this time. Pond number 2 no longer holds water. Two (2) of the ponds have a rip-rap liner and one of those liners will need to be replaced in the near future. One head wall and liner was replaced for \$15,000. Reported that the client maintains approximately one pond every three years. As a precaution, the association may want to budget an allowance for repairs to the ponds. The association should consult with pond service vendor on a regular basis to identify any necessary projects, which may be included within future Reserve Study updates as needed. The elements within this system are generally low-cost and have a failure rate that is difficult to predict, however, funding included at the request of the contact.

Useful Life:
3 years

Remaining Life:
0 years



Best Case: \$ 14,000
Lower allowance

Worst Case: \$ 16,000
Higher allowance

Cost Source: Estimate Provided by Client

Mechanical

Comp #: 2530 High Service Pump - Replace

Quantity: ~ (1) 40HP Pump

Location: Mechanical room

Funded?: Yes.

History:

Evaluation: We did not have access to the unit at the time of the inspection. Minor repair and maintenance projects should be included within the association's Operating budget. Have internal components inspected and evaluated regularly by servicing vendor or maintenance staff to optimize performance. Expect eventual need for tear down and rebuild (more cost-effective than buying new units) at roughly the interval below. Treat smaller repair / replacement below the reserve funding threshold (< 1% of the annual operating expenses, excluding reserves) as general maintenance item(s) within operating budget.

Useful Life:
20 years

Remaining Life:
11 years

No Photo Available

Best Case: \$ 8,600
Lower allowance

Worst Case: \$ 9,000
Higher allowance

Cost Source: Research with Local Vendor/Contractor

Comp #: 2532 Booster Pumps - Replace**Quantity: ~ (2) Pumps**

Location: Mechanical room

Funded?: Yes.

History:

Evaluation: We did not have access to the units at the time of the inspection. Minor repair and maintenance projects should be included within the association's Operating budget. Have internal components inspected and evaluated regularly by servicing vendor or maintenance staff to optimize performance. Expect eventual need for tear down and rebuild (more cost-effective than buying new units) at roughly the interval below. Treat smaller repair / replacement below the reserve funding threshold (< 1% of the annual operating expenses, excluding reserves) as general maintenance item(s) within operating budget.

Useful Life:
20 years

Remaining Life:
11 years

No Photo Available



Best Case: \$ 9,200
Lower allowance

Worst Case: \$ 9,600
Higher allowance

Cost Source: Research with Local Vendor/Contractor

Comp #: 2533 Chlorine Metering Pumps - Replace**Quantity: ~ (2) Pumps**

Location: Mechanical room

Funded?: No.

History:

Evaluation: We did not have access to the units at the time of the inspection. Repair / replacement is below the reserve funding threshold (< 1% of the annual operating expenses, excluding reserves), therefore replace items within the operating budget.

Useful Life:

Remaining Life:

No Photo Available



Best Case:

Worst Case:

Cost Source:

Comp #: 2534 Submersible Well Pumps - Replace

Quantity: ~ (2) 7.5 HP Pumps

Location: Mechanical room

Funded?: Yes.

History:

Evaluation: 230v Submersible 4" well pumps. We did not have access to the units at the time of the inspection. Minor repair and maintenance projects should be included within the association's Operating budget. Have internal components inspected and evaluated regularly by servicing vendor or maintenance staff to optimize performance. Expect eventual need for tear down and rebuild (more cost-effective than buying new units) at roughly the interval below. Treat smaller repair / replacement below the reserve funding threshold (< 1% of the annual operating expenses, excluding reserves) as general maintenance item(s) within operating budget.

Useful Life:
10 years

Remaining Life:
1 years

No Photo Available

Best Case: \$ 9,000
Lower allowance

Worst Case: \$ 9,400
Higher allowance

Cost Source: Research with Local Vendor/Contractor

Comp #: 2537 Boosters VFD - Replace

Quantity: (2) VFDs

Location: Pump house

Funded?: Yes.

History:

Evaluation: No access to inspect the units at the time of the inspection. Variable frequency drives (AKA variable speed drives) are used to control output of mechanical equipment when full power is not required at all times. Should be inspected and repaired as needed by servicing vendor to ensure proper function and optimal performance. Unless otherwise noted, assumed to be functional and in good condition. Plan to replace at the approximate interval shown below. The payback period for these systems, measured in energy savings, is often a fraction of the design life of the unit itself.

Useful Life:
15 years

Remaining Life:
6 years

No Photo Available

Best Case: \$ 9,400
Lower allowance

Worst Case: \$ 9,800
Higher allowance

Cost Source: Research with Local Vendor/Contractor

Comp #: 2537 High Service Pump VFD - Replace

Quantity: (1) VFD

Location: Pump house

Funded?: Yes.

History:

Evaluation: No access to inspect the units at the time of the inspection. Variable frequency drives (AKA variable speed drives) are used to control output of mechanical equipment when full power is not required at all times. Should be inspected and repaired as needed by servicing vendor to ensure proper function and optimal performance. Unless otherwise noted, assumed to be functional and in good condition. Plan to replace at the approximate interval shown below. The payback period for these systems, measured in energy savings, is often a fraction of the design life of the unit itself.

Useful Life:
15 years

Remaining Life:
6 years

No Photo Available

Best Case: \$ 17,600
Lower allowance

Worst Case: \$ 18,000
Higher allowance

Cost Source: Research with Local Vendor/Contractor

Comp #: 2537 Wells VFD - Replace**Quantity: (2) VFDs**

Location: Pump house

Funded?: Yes.

History:

Evaluation: No access to inspect the units at the time of the inspection. Variable frequency drives (AKA variable speed drives) are used to control output of mechanical equipment when full power is not required at all times. Should be inspected and repaired as needed by servicing vendor to ensure proper function and optimal performance. Unless otherwise noted, assumed to be functional and in good condition. Plan to replace at the approximate interval shown below. The payback period for these systems, measured in energy savings, is often a fraction of the design life of the unit itself.

Useful Life:
15 years

Remaining Life:
6 years

A large rectangular box with a black border. Inside the box, the text "No Photo Available" is written in a light blue font at the top left corner.

Best Case: \$ 11,400
Lower allowance

Worst Case: \$ 11,800
Higher allowance

Cost Source: Research with Local Vendor/Contractor

Comp #: 2540 Sensaphone - Replace**Quantity: (1) Sensaphone**

Location: Pump house

Funded?: Yes.

History:

Evaluation: No access to inspect the units at the time of the inspection. This is a remote monitoring system that will alert the user if there are any issues with the pump/water system. Unit is reported to be older and should be replaced soon.

Useful Life:
8 years

Remaining Life:
0 years

A large rectangular box with a black border. Inside the box, the text "No Photo Available" is written in a light blue font at the top left corner.

Best Case: \$ 1,500
Lower allowance

Worst Case: \$ 2,500
Higher allowance

Cost Source: Research with Local Vendor/Contractor

Comp #: 2547 Cummins Generator/Switch - Replace

Quantity: (1) 100 KW Unit

Location: Common areas

Funded?: Yes.

History:

Evaluation: We did not have access to inspect the inside of the unit nor the hours. Vendors typically report that with ongoing maintenance (e.g. fluids, batteries, tune ups), useful life can be extended for many years, sometimes 50 years or more. However, funding for complete replacement is often warranted due to lack of available replacement parts rather than failure of the system as a whole. Treat periodic service and inspect as general maintenance expense within Operating budget, not Reserves. Generator is a key building element in this location due to risk of severe storms and power outages, and should be tested evaluated regularly to ensure proper function.

Useful Life:
40 years

Remaining Life:
31 years



Best Case: \$ 28,000
Lower allowance

Worst Case: \$ 40,000
Higher allowance

Cost Source: Research with Local Vendor/Contractor

Comp #: 2549 Electrical Systems - Repair

Quantity: Misc. Units

Location: Pump house

Funded?: No.

History:

Evaluation: We did not have access to the interior of the pump house. Units reportedly include (1) control board (estimated replacement cost of \$3,000) and (1) surge protector unit (estimated cost of \$2,600). Analysis of electrical system(s) beyond visual inspection of readily-visible components is not within the scope of a Reserve Study. Some electrical system components used historically are known to be life limited, but predictability of failures is very difficult to determine. Manufacturing defects may become apparent from time to time and certain site conditions can contribute to premature deterioration of system components. Typically, if installed per architectural specifications and local building codes, there is no predictable time frame for large scale repair/replacement expenses within the scope of our report. In our experience working with similar associations, service life typically lasts well beyond rated life of components. Treat minor repairs as ongoing maintenance expense. Periodic inspections of distribution system by qualified electrician are wise to clean and tighten, exercise breakers, etc. Some associations employ infrared or other testing methodologies to identify trouble spots and potential hazards. Funding may be incorporated into future Reserve Study updates if conditions dictate. Keep track of any relevant expenses and include information during future Reserve Study updates as necessary. No basis for Reserve funding at this time.

Useful Life:

Remaining Life:

No Photo Available

Best Case:

Worst Case:

Cost Source:

Comp #: 2562 Water Storage Tank - Inspect**Quantity: (1) 24,400 Gallon Tank**

Location: Common area

Funded?: Yes.

History:

Evaluation: Typically the tank should be inspected every 5 years by a qualified expert. This component allows funding to be available for repairs needed at the time of the inspection. Reported that this inspection has not yet taken place.

Useful Life:
5 years

Remaining Life:
0 years



Best Case: \$ 2,000
Lower allowance

Worst Case: \$ 3,000
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 2564 Water Storage Tank Interior - Paint**Quantity: (1) 24,400 Gallon Tank**

Location: Common area

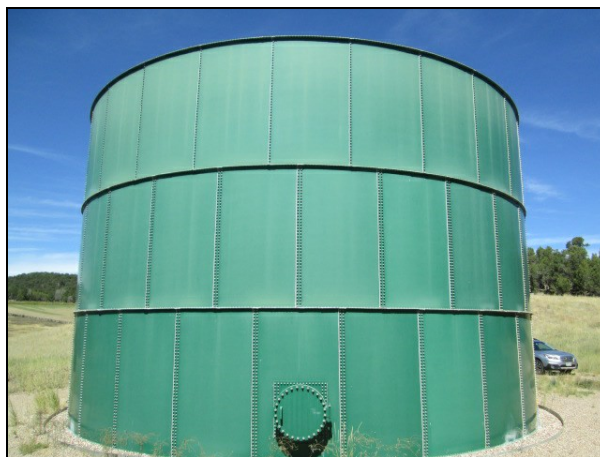
Funded?: Yes.

History:

Evaluation: No access to inspect the condition of the tank. The life of this item should be adjusted as new information becomes available (diver reports). Typically, the interior of the tank needs to be painted every 10-20 years. Interior of the tank requires (3) coats of food grade paint, and the exterior requires (2) coats spot prime. Tank should be inspected periodically to identify and weakened/weathered sections which may need to be repairs and painting. Expect to repair as needed and paint at roughly the interval shown here in order to maintain a good, consistent appearance.

Useful Life:
15 years

Remaining Life:
6 years



Best Case: \$ 30,000
Lower allowance

Worst Case: \$ 40,000
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 2565 Water Storage Tank Exterior - Paint**Quantity: (1) 24,400 Gallon Tank**

Location: Common area

Funded?: Yes.

History:

Evaluation: No issues or rust noted. Vandalism was observed on the north side of the tank. Tank should be inspected periodically to identify and weakened/weathered sections which may need to be repairs and painting. Expect to repair as needed and paint at roughly the interval shown here in order to maintain a good, consistent appearance.

Useful Life:
15 years

Remaining Life:
6 years



Best Case: \$ 8,000
Lower allowance

Worst Case: \$ 11,000
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 2568 Water Storage Tank - Replace**Quantity: (1) 24,400 Gallon Tank**

Location: Common area

Funded?: No. No expectation for replacement

History:

Evaluation: Typically, if installed per architectural specifications and local building codes, there is no predictable time frame for large scale repair/replacement expenses within the scope of our report. However, it was reported by numerous vendors that if the tank is not maintained on a reoccurring schedule, then the tank may experience a shorter useful life. If leaks, defective material and/or issues become evident, have qualified vendor and/or engineer evaluate in

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 2579 Irrigation Controllers - Replace**Quantity: ~ (3) Controllers**

Location: Common areas

Funded?: No. Replace as needed using the operating budget.

History:

Evaluation: There are a total of three (3) controllers that are reported to be replaced using funds from the operating budget. Irrigation controllers should have a relatively long life expectancy under normal circumstances. Eventual replacement is below the reserve funding threshold (< 1% of the annual operating expenses, excluding reserves) therefore, fund within operating budget.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 2583 Backflow Devices - Replace**Quantity: ~ (4) Devices**

Location: Common areas

Funded?: No. Replace as needed from operating budget.

History:

Evaluation: There are four (4) backflow devices on the property. They can all be replaced as needed using funds from the operating budget. Failure rate is fairly unpredictable. The device was not tested at the time of the inspection. As routine maintenance, inspect regularly, test system and repair as needed from Operating budget. Consult with irrigation vendor to determine what types of repairs and replacements are included in the landscaping contract.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 2589 Irrigation System - Repair**Quantity: ~ (1) System**

Location: Common areas

Funded?: Yes.

History:

Evaluation: Contact reported that the client performs about \$2,000 allowance every three (3) years for repairs. As routine maintenance, inspect regularly, test system and repair as needed from Operating budget. If properly installed without defect, the elements within this system are generally low-cost and have a failure rate that is difficult to predict, however, funding included at the request of the contact.

Useful Life:
3 years

Remaining Life:
2 years



Best Case: \$ 1,500
Lower allowance

Worst Case: \$ 2,500
Higher allowance

Cost Source: Estimate Provided by Client

Comp #: 2590 Irrigation System - Rebuild**Quantity: ~ (1) System**

Location: Common areas

Funded?: Yes.

History:

Evaluation: Contact reported that the client would like to include a \$500,000 allowance in 15 years for a complete overhaul. As routine maintenance, inspect regularly, test system and repair as needed from Operating budget. Consult with irrigation vendor to determine what types of repairs and replacements are included in the landscaping contract. If properly installed without defect, the elements within this system are generally low-cost and have a failure rate that is difficult to predict, however, funding included at the request of the contact.

Useful Life:
15 years

Remaining Life:
14 years



Best Case: \$ 500,000
Lower allowance

Worst Case: \$ 500,000
Higher allowance

Cost Source: Estimate Provided by Client