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Update "With-Site-Visit" Reserve Study



Mercer Park Bellevue, WA

Report #: 11700-3
For Period Beginning: January 1, 2018
Expires: December 31, 2018

Date Prepared: August 30, 2017



Hello, and welcome to your Reserve Study!

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

With 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 or call us at:

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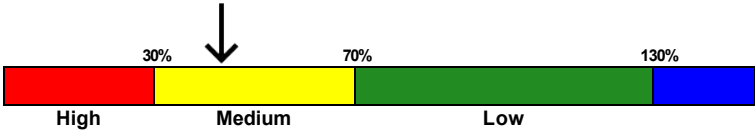
3- Minute Executive Summary

Association: Mercer Park **Assoc. #: 11700-3**
Location: Bellevue, WA **# of Units:122**
Report Period: January 1, 2018 through December 31, 2018

Findings/Recommendations as-of: January 1, 2018

Starting Reserve Balance	\$856,256
Current Fully Funded Reserve Balance	\$1,946,094
Percent Funded	44.0 %
Average Reserve Deficit or (Surplus) Per Unit	\$8,933
Recommended 2018 100% Monthly "Full Funding" Contributions	\$13,100
2018 "Baseline Funding" minimum contributions to keep Reserves above \$0	\$11,800
Most Recent Budgeted Contribution Rate	\$10,808

Reserves % Funded: 44.0%



Special Assessment Risk:

Economic Assumptions:

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

- This is a Update "With-Site-Visit" Reserve Study, meeting or exceeding all requirements of the RCW. This study was prepared by, or under the supervision of a credentialed Reserve Specialist (RS™).
- Your Reserve Fund is currently 44.0 % Funded. This means the association’s special assessment & deferred maintenance risk is currently Medium. 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 Reserve Contributions to 100% range as noted above. The 100% “Full” contribution rate is designed to gradually achieve 100% funding by the end of our 30-year report scope.
- No assets appropriate for Reserve designation known to be excluded. See appendix for component information and the basis of our assumptions.

#	Component	Useful Life (yrs)	Rem. Useful Life (yrs)	Current Average Cost
Site / Grounds				
120	Asphalt - Resurface	30	1	\$182,000
121	Asphalt - Seal/Repair	5	2	\$23,000
147	Trash Enclosures - Repair/Replace	10	1	\$10,050
160	Pole Lights - Replace	25	24	\$3,950
199	Entry Sign/Monument - Replace	20	11	\$3,350
Clubhouse				
434	Clubhouse Flooring - Replace	15	4	\$5,400
435	Clubhouse Int Walls - Repaint	15	4	\$5,400
436	Clubhouse Kitchen - Refurbish	30	4	\$5,650
440	Clubhouse Bathrooms - Refurbish	30	4	\$2,900
454	Clubhouse Furniture - Replace	15	4	\$8,800
465	Exercise Equipment - Replace	5	0	\$3,950
Building Exterior				
500	Roof: Asphalt Shingles - Replace	30	18	\$465,000
515	Chimney Covers & Flue Caps -Replace	30	4	\$58,000
520	Siding: Vinyl - Replace	40	12	\$1,450,000
525	Exterior Surfaces- Paint/Caulk	8	0	\$120,000
550	Rails: Decks & Stairs- Replace	30	0	\$320,000
594	Entry Stair Landing - Recoat	6	4	\$25,500
597	Stairwells - Repair	1	0	\$3,150
Systems				
965	Fire Alarm Panel - Replace	20	0	\$17,000
19 Total Funded Components				

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



For this [Update With-Site-Visit Reserve Study](#), we started with a review of your prior Reserve Study, then looked into recent Reserve expenditures, evaluated how expenditures are handled (ongoing maintenance vs Reserves), and researched any well-established association precedents. We performed an on-site inspection to evaluate your common areas, updating and adjusting your Reserve Component List as appropriate.

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 6/5/2017, we started the site inspection beginning with the site and grounds. We visually inspected all visible common area while compiling a photographic inventory, noting: current condition, make & model information where appropriate, apparent levels of care and maintenance, exposure to weather elements and other factors that may affect the components useful life.

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.

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

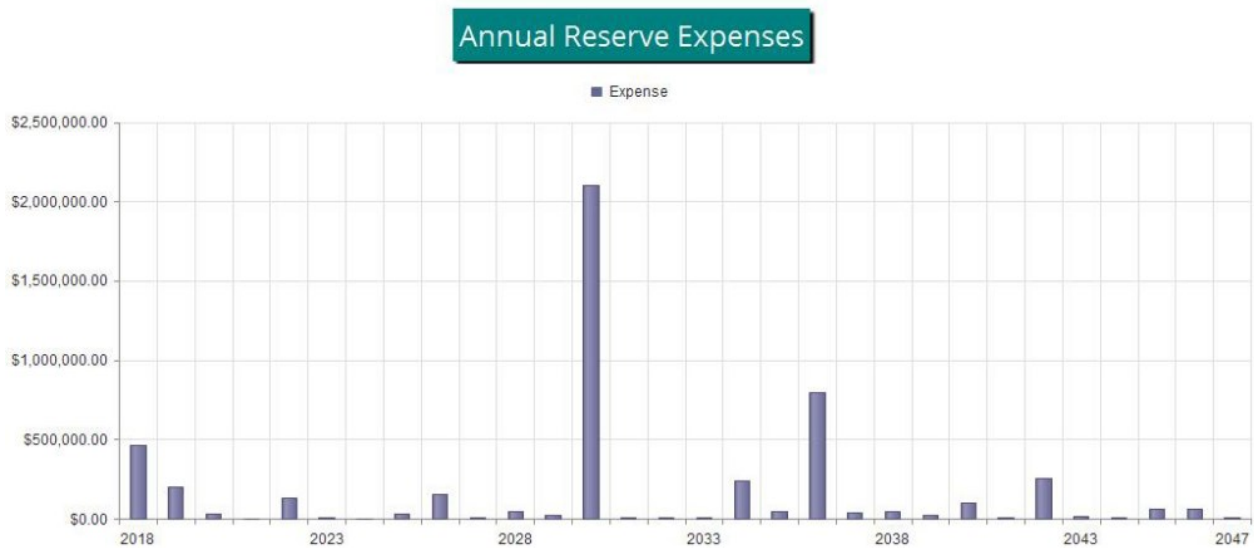


Figure 1

Reserve Fund Status

The starting point for our financial analysis is your Reserve Fund balance, projected to be \$856,256 as-of the start of your Fiscal Year on 1/1/2018. As of that date , your Fully Funded Balance is computed to be \$1,946,094 (see Fully Funded Balance Table). This figure represents the deteriorated value of your common area components.

Recommended Funding Plan

Based on your current Percent Funded and your near-term and long-term Reserve needs, we are recommending budgeted contributions of \$13,100 per month this Fiscal Year. 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.

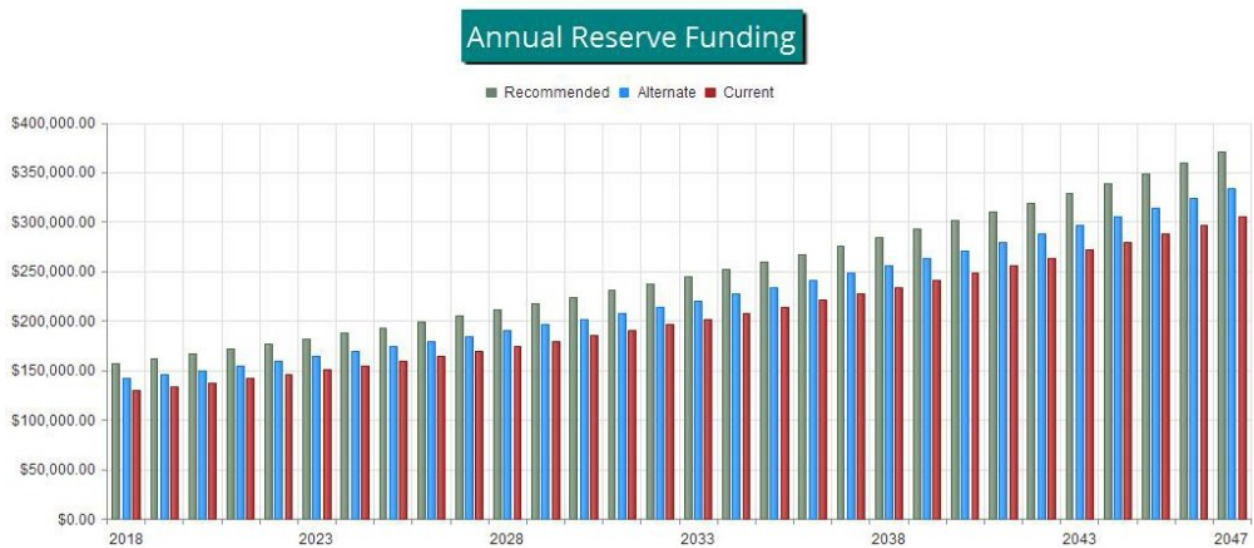


Figure 2

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 (assumes future increases), compared to your always-changing Fully Funded Balance target.

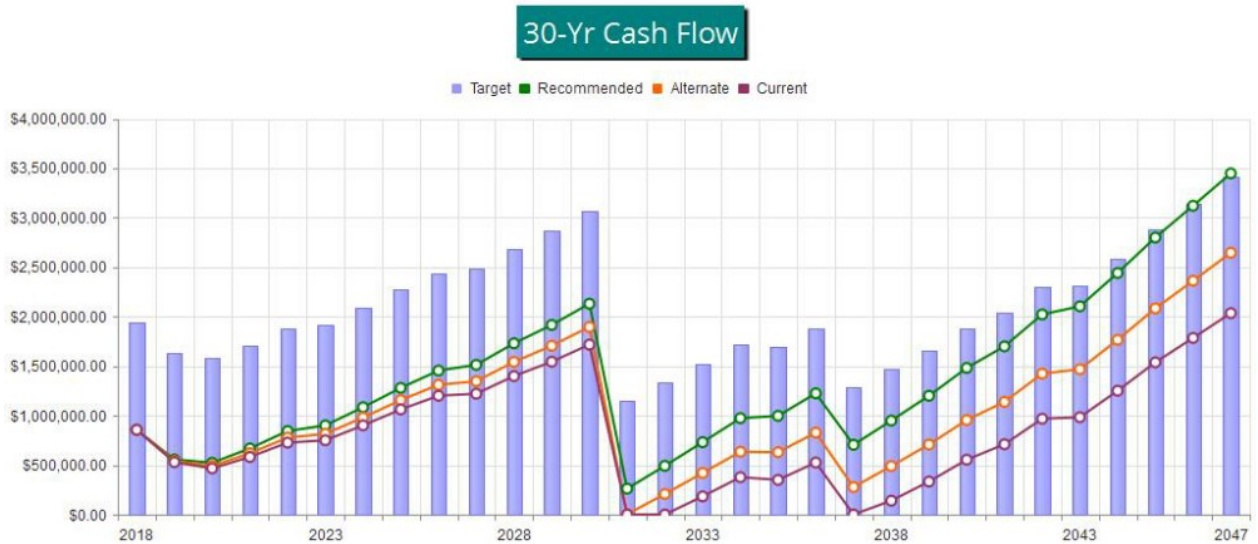


Figure 3

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

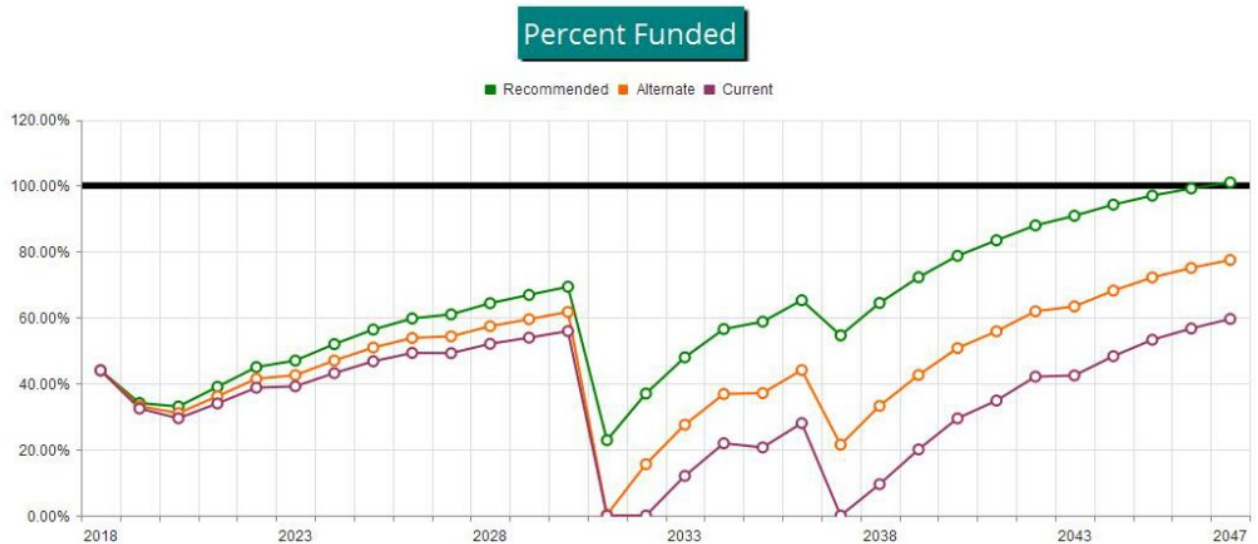


Figure 4

Table Descriptions

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

Executive Summary is a summary of your Reserve Components

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

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

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

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

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

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

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

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

Reserve Component List Detail

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# Component	Quantity	Useful Life	Rem. Useful Life	Current Cost Estimate		
				Best Case	Worst Case	
Site / Grounds						
120	Asphalt - Resurface	~ 82,000 square feet	30	1	\$164,000	\$200,000
121	Asphalt - Seal/Repair	~ 82,000 square feet	5	2	\$18,000	\$28,000
147	Trash Enclosures - Repair/Replace	(8), 8 ft x 12 ft	10	1	\$8,100	\$12,000
160	Pole Lights - Replace	(2) wood assemblies	25	24	\$3,400	\$4,500
199	Entry Sign/Monument - Replace	2 plastic, 2 wood	20	11	\$2,200	\$4,500
Clubhouse						
434	Clubhouse Flooring - Replace	~ 80 square yards	15	4	\$4,500	\$6,300
435	Clubhouse Int Walls - Repaint	~ 6,600 square feet	15	4	\$4,500	\$6,300
436	Clubhouse Kitchen - Refurbish	~ 15 square feet	30	4	\$4,500	\$6,800
440	Clubhouse Bathrooms - Refurbish	(4) bathrooms	30	4	\$2,200	\$3,600
454	Clubhouse Furniture - Replace	Numerous assorted pieces	15	4	\$5,600	\$12,000
465	Exercise Equipment - Replace	Assorted pieces	5	0	\$3,400	\$4,500
Building Exterior						
500	Roof: Asphalt Shingles - Replace	~ 110,000 square feet	30	18	\$430,000	\$500,000
515	Chimney Covers & Flue Caps -Replace	~ (50) covers, (122) caps	30	4	\$46,000	\$70,000
520	Siding: Vinyl - Replace	~ 122,000 square feet	40	12	\$1,300,000	\$1,600,000
525	Exterior Surfaces- Paint/Caulk	Limited square feet	8	0	\$100,000	\$140,000
550	Rails: Decks & Stairs- Replace	~ 4,400 linear feet	30	0	\$300,000	\$340,000
594	Entry Stair Landing - Recoat	~ 533 square feet	6	4	\$21,000	\$30,000
597	Stairwells - Repair	Extensive square feet	1	0	\$2,100	\$4,200
Systems						
965	Fire Alarm Panel - Replace	2 or 3 panels	20	0	\$10,000	\$24,000
19 Total Funded Components						

Fully Funded Balance

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#	Component	Current Cost Estimate	X	Effective Age	/	Useful Life	=	Fully Funded Balance
Site / Grounds								
120	Asphalt - Resurface	\$182,000	X	29	/	30	=	\$175,933
121	Asphalt - Seal/Repair	\$23,000	X	3	/	5	=	\$13,800
147	Trash Enclosures - Repair/Replace	\$10,050	X	9	/	10	=	\$9,045
160	Pole Lights - Replace	\$3,950	X	1	/	25	=	\$158
199	Entry Sign/Monument - Replace	\$3,350	X	9	/	20	=	\$1,508
Clubhouse								
434	Clubhouse Flooring - Replace	\$5,400	X	11	/	15	=	\$3,960
435	Clubhouse Int Walls - Repaint	\$5,400	X	11	/	15	=	\$3,960
436	Clubhouse Kitchen - Refurbish	\$5,650	X	26	/	30	=	\$4,897
440	Clubhouse Bathrooms - Refurbish	\$2,900	X	26	/	30	=	\$2,513
454	Clubhouse Furniture - Replace	\$8,800	X	11	/	15	=	\$6,453
465	Exercise Equipment - Replace	\$3,950	X	5	/	5	=	\$3,950
Building Exterior								
500	Roof: Asphalt Shingles - Replace	\$465,000	X	12	/	30	=	\$186,000
515	Chimney Covers & Flue Caps -Replace	\$58,000	X	26	/	30	=	\$50,267
520	Siding: Vinyl - Replace	\$1,450,000	X	28	/	40	=	\$1,015,000
525	Exterior Surfaces- Paint/Caulk	\$120,000	X	8	/	8	=	\$120,000
550	Rails: Decks & Stairs- Replace	\$320,000	X	30	/	30	=	\$320,000
594	Entry Stair Landing - Recoat	\$25,500	X	2	/	6	=	\$8,500
597	Stairwells - Repair	\$3,150	X	1	/	1	=	\$3,150
Systems								
965	Fire Alarm Panel - Replace	\$17,000	X	20	/	20	=	\$17,000
								\$1,946,094

Component Significance

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#	Component	Useful Life (yrs)	Current Cost Estimate	Deterioration Cost/Yr	Deterioration Significance
Site / Grounds					
120	Asphalt - Resurface	30	\$182,000	\$6,067	5.95 %
121	Asphalt - Seal/Repair	5	\$23,000	\$4,600	4.51 %
147	Trash Enclosures - Repair/Replace	10	\$10,050	\$1,005	0.99 %
160	Pole Lights - Replace	25	\$3,950	\$158	0.15 %
199	Entry Sign/Monument - Replace	20	\$3,350	\$168	0.16 %
Clubhouse					
434	Clubhouse Flooring - Replace	15	\$5,400	\$360	0.35 %
435	Clubhouse Int Walls - Repaint	15	\$5,400	\$360	0.35 %
436	Clubhouse Kitchen - Refurbish	30	\$5,650	\$188	0.18 %
440	Clubhouse Bathrooms - Refurbish	30	\$2,900	\$97	0.09 %
454	Clubhouse Furniture - Replace	15	\$8,800	\$587	0.58 %
465	Exercise Equipment - Replace	5	\$3,950	\$790	0.77 %
Building Exterior					
500	Roof: Asphalt Shingles - Replace	30	\$465,000	\$15,500	15.20 %
515	Chimney Covers & Flue Caps -Replace	30	\$58,000	\$1,933	1.90 %
520	Siding: Vinyl - Replace	40	\$1,450,000	\$36,250	35.55 %
525	Exterior Surfaces- Paint/Caulk	8	\$120,000	\$15,000	14.71 %
550	Rails: Decks & Stairs- Replace	30	\$320,000	\$10,667	10.46 %
594	Entry Stair Landing - Recoat	6	\$25,500	\$4,250	4.17 %
597	Stairwells - Repair	1	\$3,150	\$3,150	3.09 %
Systems					
965	Fire Alarm Panel - Replace	20	\$17,000	\$850	0.83 %
19	Total Funded Components			\$101,979	100.00 %

30-Year Reserve Plan Summary

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Fiscal Year Start: 2018

Interest:

1.00 %

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	Reserve Contribs.	Loan or Special Assmts	Interest Income	Reserve Expenses
2018	\$856,256	\$1,946,094	44.0 %	Medium	\$157,200	\$0	\$7,060	\$464,100
2019	\$556,416	\$1,631,492	34.1 %	Medium	\$161,916	\$0	\$5,393	\$201,056
2020	\$522,669	\$1,581,538	33.0 %	Medium	\$166,773	\$0	\$5,949	\$27,743
2021	\$667,650	\$1,711,845	39.0 %	Medium	\$171,777	\$0	\$7,553	\$3,442
2022	\$843,537	\$1,874,433	45.0 %	Medium	\$176,930	\$0	\$8,714	\$129,208
2023	\$899,972	\$1,915,802	47.0 %	Medium	\$182,238	\$0	\$9,915	\$8,231
2024	\$1,083,894	\$2,086,567	51.9 %	Medium	\$187,705	\$0	\$11,813	\$3,761
2025	\$1,279,651	\$2,270,711	56.4 %	Medium	\$193,336	\$0	\$13,665	\$32,161
2026	\$1,454,491	\$2,434,890	59.7 %	Medium	\$199,136	\$0	\$14,828	\$156,003
2027	\$1,512,453	\$2,480,313	61.0 %	Medium	\$205,110	\$0	\$16,204	\$4,110
2028	\$1,729,657	\$2,687,540	64.4 %	Medium	\$211,264	\$0	\$18,217	\$43,812
2029	\$1,915,326	\$2,864,203	66.9 %	Medium	\$217,602	\$0	\$20,219	\$22,909
2030	\$2,130,238	\$3,071,930	69.3 %	Medium	\$224,130	\$0	\$11,955	\$2,104,637
2031	\$261,685	\$1,146,071	22.8 %	High	\$230,853	\$0	\$3,765	\$4,626
2032	\$491,678	\$1,329,941	37.0 %	Medium	\$237,779	\$0	\$6,110	\$4,765
2033	\$730,802	\$1,523,811	48.0 %	Medium	\$244,912	\$0	\$8,516	\$11,062
2034	\$973,169	\$1,721,778	56.5 %	Medium	\$252,260	\$0	\$9,845	\$238,540
2035	\$996,735	\$1,696,291	58.8 %	Medium	\$259,828	\$0	\$11,101	\$43,222
2036	\$1,224,441	\$1,876,273	65.3 %	Medium	\$267,622	\$0	\$9,642	\$796,994
2037	\$704,711	\$1,290,478	54.6 %	Medium	\$275,651	\$0	\$8,264	\$39,892
2038	\$948,734	\$1,472,289	64.4 %	Medium	\$283,921	\$0	\$10,738	\$43,527
2039	\$1,199,866	\$1,661,335	72.2 %	Low	\$292,438	\$0	\$13,399	\$24,556
2040	\$1,481,148	\$1,881,284	78.7 %	Low	\$301,211	\$0	\$15,895	\$98,967
2041	\$1,699,288	\$2,037,051	83.4 %	Low	\$310,248	\$0	\$18,598	\$6,217
2042	\$2,021,917	\$2,299,061	87.9 %	Low	\$319,555	\$0	\$20,619	\$258,368
2043	\$2,103,724	\$2,315,435	90.9 %	Low	\$329,142	\$0	\$22,713	\$14,866
2044	\$2,440,712	\$2,589,513	94.3 %	Low	\$339,016	\$0	\$26,188	\$6,793
2045	\$2,799,123	\$2,886,726	97.0 %	Low	\$349,187	\$0	\$29,582	\$58,087
2046	\$3,119,805	\$3,146,818	99.1 %	Low	\$359,662	\$0	\$32,819	\$65,549
2047	\$3,446,737	\$3,414,027	101.0 %	Low	\$370,452	\$0	\$36,449	\$7,423

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

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Fiscal Year	2018	2019	2020	2021	2022
Starting Reserve Balance	\$856,256	\$556,416	\$522,669	\$667,650	\$843,537
Annual Reserve Contribution	\$157,200	\$161,916	\$166,773	\$171,777	\$176,930
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$7,060	\$5,393	\$5,949	\$7,553	\$8,714
Total Income	\$1,020,516	\$723,725	\$695,392	\$846,979	\$1,029,181
# Component					
Site / Grounds					
120 Asphalt - Resurface	\$0	\$187,460	\$0	\$0	\$0
121 Asphalt - Seal/Repair	\$0	\$0	\$24,401	\$0	\$0
147 Trash Enclosures - Repair/Replace	\$0	\$10,352	\$0	\$0	\$0
160 Pole Lights - Replace	\$0	\$0	\$0	\$0	\$0
199 Entry Sign/Monument - Replace	\$0	\$0	\$0	\$0	\$0
Clubhouse					
434 Clubhouse Flooring - Replace	\$0	\$0	\$0	\$0	\$6,078
435 Clubhouse Int Walls - Repaint	\$0	\$0	\$0	\$0	\$6,078
436 Clubhouse Kitchen - Refurbish	\$0	\$0	\$0	\$0	\$6,359
440 Clubhouse Bathrooms - Refurbish	\$0	\$0	\$0	\$0	\$3,264
454 Clubhouse Furniture - Replace	\$0	\$0	\$0	\$0	\$9,904
465 Exercise Equipment - Replace	\$3,950	\$0	\$0	\$0	\$0
Building Exterior					
500 Roof: Asphalt Shingles - Replace	\$0	\$0	\$0	\$0	\$0
515 Chimney Covers & Flue Caps -Replace	\$0	\$0	\$0	\$0	\$65,280
520 Siding: Vinyl - Replace	\$0	\$0	\$0	\$0	\$0
525 Exterior Surfaces- Paint/Caulk	\$120,000	\$0	\$0	\$0	\$0
550 Rails: Decks & Stairs- Replace	\$320,000	\$0	\$0	\$0	\$0
594 Entry Stair Landing - Recoat	\$0	\$0	\$0	\$0	\$28,700
597 Stairwells - Repair	\$3,150	\$3,245	\$3,342	\$3,442	\$3,545
Systems					
965 Fire Alarm Panel - Replace	\$17,000	\$0	\$0	\$0	\$0
Total Expenses	\$464,100	\$201,056	\$27,743	\$3,442	\$129,208
Ending Reserve Balance	\$556,416	\$522,669	\$667,650	\$843,537	\$899,972

Fiscal Year	2023	2024	2025	2026	2027
Starting Reserve Balance	\$899,972	\$1,083,894	\$1,279,651	\$1,454,491	\$1,512,453
Annual Reserve Contribution	\$182,238	\$187,705	\$193,336	\$199,136	\$205,110
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$9,915	\$11,813	\$13,665	\$14,828	\$16,204
Total Income	\$1,092,125	\$1,283,412	\$1,486,652	\$1,668,455	\$1,733,767
# Component					
Site / Grounds					
120 Asphalt - Resurface	\$0	\$0	\$0	\$0	\$0
121 Asphalt - Seal/Repair	\$0	\$0	\$28,287	\$0	\$0
147 Trash Enclosures - Repair/Replace	\$0	\$0	\$0	\$0	\$0
160 Pole Lights - Replace	\$0	\$0	\$0	\$0	\$0
199 Entry Sign/Monument - Replace	\$0	\$0	\$0	\$0	\$0
Clubhouse					
434 Clubhouse Flooring - Replace	\$0	\$0	\$0	\$0	\$0
435 Clubhouse Int Walls - Repaint	\$0	\$0	\$0	\$0	\$0
436 Clubhouse Kitchen - Refurbish	\$0	\$0	\$0	\$0	\$0
440 Clubhouse Bathrooms - Refurbish	\$0	\$0	\$0	\$0	\$0
454 Clubhouse Furniture - Replace	\$0	\$0	\$0	\$0	\$0
465 Exercise Equipment - Replace	\$4,579	\$0	\$0	\$0	\$0
Building Exterior					
500 Roof: Asphalt Shingles - Replace	\$0	\$0	\$0	\$0	\$0
515 Chimney Covers & Flue Caps -Replace	\$0	\$0	\$0	\$0	\$0
520 Siding: Vinyl - Replace	\$0	\$0	\$0	\$0	\$0
525 Exterior Surfaces- Paint/Caulk	\$0	\$0	\$0	\$152,012	\$0
550 Rails: Decks & Stairs- Replace	\$0	\$0	\$0	\$0	\$0
594 Entry Stair Landing - Recoat	\$0	\$0	\$0	\$0	\$0
597 Stairwells - Repair	\$3,652	\$3,761	\$3,874	\$3,990	\$4,110
Systems					
965 Fire Alarm Panel - Replace	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$8,231	\$3,761	\$32,161	\$156,003	\$4,110
Ending Reserve Balance	\$1,083,894	\$1,279,651	\$1,454,491	\$1,512,453	\$1,729,657

Fiscal Year	2028	2029	2030	2031	2032
Starting Reserve Balance	\$1,729,657	\$1,915,326	\$2,130,238	\$261,685	\$491,678
Annual Reserve Contribution	\$211,264	\$217,602	\$224,130	\$230,853	\$237,779
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$18,217	\$20,219	\$11,955	\$3,765	\$6,110
Total Income	\$1,959,137	\$2,153,147	\$2,366,322	\$496,303	\$735,566
# Component					
Site / Grounds					
120 Asphalt - Resurface	\$0	\$0	\$0	\$0	\$0
121 Asphalt - Seal/Repair	\$0	\$0	\$32,793	\$0	\$0
147 Trash Enclosures - Repair/Replace	\$0	\$13,912	\$0	\$0	\$0
160 Pole Lights - Replace	\$0	\$0	\$0	\$0	\$0
199 Entry Sign/Monument - Replace	\$0	\$4,637	\$0	\$0	\$0
Clubhouse					
434 Clubhouse Flooring - Replace	\$0	\$0	\$0	\$0	\$0
435 Clubhouse Int Walls - Repaint	\$0	\$0	\$0	\$0	\$0
436 Clubhouse Kitchen - Refurbish	\$0	\$0	\$0	\$0	\$0
440 Clubhouse Bathrooms - Refurbish	\$0	\$0	\$0	\$0	\$0
454 Clubhouse Furniture - Replace	\$0	\$0	\$0	\$0	\$0
465 Exercise Equipment - Replace	\$5,308	\$0	\$0	\$0	\$0
Building Exterior					
500 Roof: Asphalt Shingles - Replace	\$0	\$0	\$0	\$0	\$0
515 Chimney Covers & Flue Caps -Replace	\$0	\$0	\$0	\$0	\$0
520 Siding: Vinyl - Replace	\$0	\$0	\$2,067,353	\$0	\$0
525 Exterior Surfaces- Paint/Caulk	\$0	\$0	\$0	\$0	\$0
550 Rails: Decks & Stairs- Replace	\$0	\$0	\$0	\$0	\$0
594 Entry Stair Landing - Recoat	\$34,270	\$0	\$0	\$0	\$0
597 Stairwells - Repair	\$4,233	\$4,360	\$4,491	\$4,626	\$4,765
Systems					
965 Fire Alarm Panel - Replace	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$43,812	\$22,909	\$2,104,637	\$4,626	\$4,765
Ending Reserve Balance	\$1,915,326	\$2,130,238	\$261,685	\$491,678	\$730,802

Fiscal Year	2033	2034	2035	2036	2037
Starting Reserve Balance	\$730,802	\$973,169	\$996,735	\$1,224,441	\$704,711
Annual Reserve Contribution	\$244,912	\$252,260	\$259,828	\$267,622	\$275,651
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$8,516	\$9,845	\$11,101	\$9,642	\$8,264
Total Income	\$984,231	\$1,235,274	\$1,267,663	\$1,501,706	\$988,626
# Component					
Site / Grounds					
120 Asphalt - Resurface	\$0	\$0	\$0	\$0	\$0
121 Asphalt - Seal/Repair	\$0	\$0	\$38,015	\$0	\$0
147 Trash Enclosures - Repair/Replace	\$0	\$0	\$0	\$0	\$0
160 Pole Lights - Replace	\$0	\$0	\$0	\$0	\$0
199 Entry Sign/Monument - Replace	\$0	\$0	\$0	\$0	\$0
Clubhouse					
434 Clubhouse Flooring - Replace	\$0	\$0	\$0	\$0	\$9,469
435 Clubhouse Int Walls - Repaint	\$0	\$0	\$0	\$0	\$9,469
436 Clubhouse Kitchen - Refurbish	\$0	\$0	\$0	\$0	\$0
440 Clubhouse Bathrooms - Refurbish	\$0	\$0	\$0	\$0	\$0
454 Clubhouse Furniture - Replace	\$0	\$0	\$0	\$0	\$15,431
465 Exercise Equipment - Replace	\$6,154	\$0	\$0	\$0	\$0
Building Exterior					
500 Roof: Asphalt Shingles - Replace	\$0	\$0	\$0	\$791,631	\$0
515 Chimney Covers & Flue Caps -Replace	\$0	\$0	\$0	\$0	\$0
520 Siding: Vinyl - Replace	\$0	\$0	\$0	\$0	\$0
525 Exterior Surfaces- Paint/Caulk	\$0	\$192,565	\$0	\$0	\$0
550 Rails: Decks & Stairs- Replace	\$0	\$0	\$0	\$0	\$0
594 Entry Stair Landing - Recoat	\$0	\$40,920	\$0	\$0	\$0
597 Stairwells - Repair	\$4,908	\$5,055	\$5,206	\$5,363	\$5,524
Systems					
965 Fire Alarm Panel - Replace	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$11,062	\$238,540	\$43,222	\$796,994	\$39,892
Ending Reserve Balance	\$973,169	\$996,735	\$1,224,441	\$704,711	\$948,734

Fiscal Year	2038	2039	2040	2041	2042
Starting Reserve Balance	\$948,734	\$1,199,866	\$1,481,148	\$1,699,288	\$2,021,917
Annual Reserve Contribution	\$283,921	\$292,438	\$301,211	\$310,248	\$319,555
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$10,738	\$13,399	\$15,895	\$18,598	\$20,619
Total Income	\$1,243,393	\$1,505,704	\$1,798,255	\$2,028,134	\$2,362,092
# Component					
Site / Grounds					
120 Asphalt - Resurface	\$0	\$0	\$0	\$0	\$0
121 Asphalt - Seal/Repair	\$0	\$0	\$44,070	\$0	\$0
147 Trash Enclosures - Repair/Replace	\$0	\$18,696	\$0	\$0	\$0
160 Pole Lights - Replace	\$0	\$0	\$0	\$0	\$8,030
199 Entry Sign/Monument - Replace	\$0	\$0	\$0	\$0	\$0
Clubhouse					
434 Clubhouse Flooring - Replace	\$0	\$0	\$0	\$0	\$0
435 Clubhouse Int Walls - Repaint	\$0	\$0	\$0	\$0	\$0
436 Clubhouse Kitchen - Refurbish	\$0	\$0	\$0	\$0	\$0
440 Clubhouse Bathrooms - Refurbish	\$0	\$0	\$0	\$0	\$0
454 Clubhouse Furniture - Replace	\$0	\$0	\$0	\$0	\$0
465 Exercise Equipment - Replace	\$7,134	\$0	\$0	\$0	\$0
Building Exterior					
500 Roof: Asphalt Shingles - Replace	\$0	\$0	\$0	\$0	\$0
515 Chimney Covers & Flue Caps -Replace	\$0	\$0	\$0	\$0	\$0
520 Siding: Vinyl - Replace	\$0	\$0	\$0	\$0	\$0
525 Exterior Surfaces- Paint/Caulk	\$0	\$0	\$0	\$0	\$243,935
550 Rails: Decks & Stairs- Replace	\$0	\$0	\$0	\$0	\$0
594 Entry Stair Landing - Recoat	\$0	\$0	\$48,861	\$0	\$0
597 Stairwells - Repair	\$5,689	\$5,860	\$6,036	\$6,217	\$6,403
Systems					
965 Fire Alarm Panel - Replace	\$30,704	\$0	\$0	\$0	\$0
Total Expenses	\$43,527	\$24,556	\$98,967	\$6,217	\$258,368
Ending Reserve Balance	\$1,199,866	\$1,481,148	\$1,699,288	\$2,021,917	\$2,103,724

Fiscal Year	2043	2044	2045	2046	2047
Starting Reserve Balance	\$2,103,724	\$2,440,712	\$2,799,123	\$3,119,805	\$3,446,737
Annual Reserve Contribution	\$329,142	\$339,016	\$349,187	\$359,662	\$370,452
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$22,713	\$26,188	\$29,582	\$32,819	\$36,449
Total Income	\$2,455,578	\$2,805,916	\$3,177,892	\$3,512,286	\$3,853,638
# Component					
Site / Grounds					
120 Asphalt - Resurface	\$0	\$0	\$0	\$0	\$0
121 Asphalt - Seal/Repair	\$0	\$0	\$51,090	\$0	\$0
147 Trash Enclosures - Repair/Replace	\$0	\$0	\$0	\$0	\$0
160 Pole Lights - Replace	\$0	\$0	\$0	\$0	\$0
199 Entry Sign/Monument - Replace	\$0	\$0	\$0	\$0	\$0
Clubhouse					
434 Clubhouse Flooring - Replace	\$0	\$0	\$0	\$0	\$0
435 Clubhouse Int Walls - Repaint	\$0	\$0	\$0	\$0	\$0
436 Clubhouse Kitchen - Refurbish	\$0	\$0	\$0	\$0	\$0
440 Clubhouse Bathrooms - Refurbish	\$0	\$0	\$0	\$0	\$0
454 Clubhouse Furniture - Replace	\$0	\$0	\$0	\$0	\$0
465 Exercise Equipment - Replace	\$8,270	\$0	\$0	\$0	\$0
Building Exterior					
500 Roof: Asphalt Shingles - Replace	\$0	\$0	\$0	\$0	\$0
515 Chimney Covers & Flue Caps -Replace	\$0	\$0	\$0	\$0	\$0
520 Siding: Vinyl - Replace	\$0	\$0	\$0	\$0	\$0
525 Exterior Surfaces- Paint/Caulk	\$0	\$0	\$0	\$0	\$0
550 Rails: Decks & Stairs- Replace	\$0	\$0	\$0	\$0	\$0
594 Entry Stair Landing - Recoat	\$0	\$0	\$0	\$58,342	\$0
597 Stairwells - Repair	\$6,595	\$6,793	\$6,997	\$7,207	\$7,423
Systems					
965 Fire Alarm Panel - Replace	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$14,866	\$6,793	\$58,087	\$65,549	\$7,423
Ending Reserve Balance	\$2,440,712	\$2,799,123	\$3,119,805	\$3,446,737	\$3,846,215

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."

Association Reserves and its employees have no ownership, management, or other business relationships with the client other than this Reserve Study engagement. James Talaga, company President, is a credentialed Reserve Specialist (#066). All work done by Association Reserves WA, LLC 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.

In this engagement our compensation is not contingent upon our conclusions, and our 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.
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 the "30-yr Income/Expense Detail" table.
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 Component Details appendix is to provide the reader with the basis of our funding assumptions resulting from our research and analysis. The information presented here represents a wide range of components that were observed and measured against National Reserve Study Standards to determine if they meet the criteria for reserve funding.

- 1) Common area repair & replacement responsibility
- 2) Component must have a limited useful life
- 3) Life limit must be predictable
- 4) Above a minimum threshold cost (board's discretion – typically ½ to 1% of Annual operating expenses).

Not all your components may have been found appropriate for reserve funding. In our judgment, the components meeting the above four criteria are shown with the Useful Life (how often the project is expected to occur), Remaining Useful Life (when the next instance of the expense will be) and representative market cost range termed “Best Cost” and “Worst Cost”. There are many factors that can result in a wide variety of potential costs, and we have attempted to present the cost range in which your actual expense will occur.

Where no Useful Life, Remaining Useful Life, or pricing exists, the component was deemed inappropriate for Reserve Funding.

Site / Grounds

Comp #: 100 Concrete - Repair/Replace

Quantity: Moderate square feet

Location: Sidewalks, patios, etc.

Funded?: No. Useful life not predictable

History:

Evaluation: Sidewalks appeared in fair condition with no significant damage/deterioration observed. No trip hazards were observed during our limited visual review.

In our experience, larger repair/replacement expenses can emerge as the community ages. No predictable large scale costs at this time. Funding may be added to a future reserve study. No reserve funding suggested at this time.

Repair any trip and fall hazards (1/2" or larger displacement) 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. Monitor tree roots nearby; consult with arborist for best practice.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 102 Concrete Curb - Repair/Replace

Quantity: Extensive linear feet

Location: Adjacent to roadway and parking areas

Funded?: No. Cost projected to be too small for reserve funding

History: 2014 \$1,300

Evaluation: We noted generally fair condition and appearance with some limited cracked or broken curb observed.

Costs for periodic partial repairs are projected to be too small for reserve funding. No reserve funding suggested.

As routine maintenance, inspect regularly, pressure wash for appearance and repair locally as needed using general maintenance & repair funds.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 110 Stair: Wood - Repair/Replace

Quantity: (1) wood stair

Location: South end of property at west side

Funded?: No. Useful life not predictable

History:

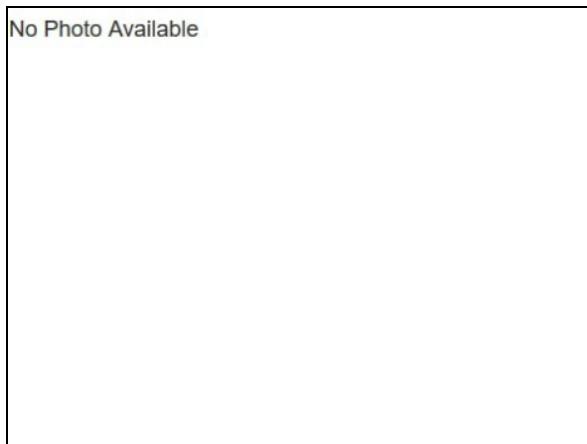
Evaluation: Wood stair was not observed during our limited visual review. Our 2015 site visit noted "no significant damage/deterioration".

With ordinary care and maintenance there is no predictable expectation for total replacement. However, in our experience as the community continues to age, some periodic larger repair needs will likely emerge. Costs for periodic partial repairs are projected to be too small for reserve funding (use maintenance funds). No reserve funding suggested.

As routine maintenance, inspect regularly and perform any needed local repairs promptly as general maintenance expense. Ensure that tread connections are tight, secure and slip resistant. Paint components regularly along with building exteriors.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 120 Asphalt - Resurface

Quantity: ~ 82,000 square feet

Location: Roadway, parking areas of association

Funded?: Yes.

History:

Evaluation: Generally fair to poor condition, with numerous cracks, prior repairs/patches, etc. observed during our limited visual review. Asphalt is getting to the end of its useful life.

Useful life below assumes regular seal coating. Lack of seal coating can greatly decrease the useful life, and resurfacing is typically one of the larger costs items in the reserve study.

Regular cycles of seal coating (see component #121) including local repairs as needed, are recommended to attain the full useful life and are a cost effective option for maintaining asphalt. As routine maintenance, keep surface clean and free of debris, ensure that drains are free flowing, repair cracks and clean oil stains promptly. Assuming proactive maintenance, plan to resurface (grind, overlay) at roughly the time frame below.

Useful Life:
30 years

Remaining Life:
1 years



Best Case: \$ 164,000

Worst Case: \$ 200,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 121 Asphalt - Seal/Repair

Quantity: ~ 82,000 square feet

Location: Roadway, parking areas of association

Funded?: Yes.

History: 2014 \$7,200 partial seal coat and repairs

Evaluation: Generally the surface of the asphalt appeared to be in poor / inconsistent condition, as it had mostly worn off. Loss of bitumen between aggregate was observed.

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, and are factored below.

The State of Washington, Department of Transportation recommends regular cycles of seal coating (they use the term bituminous surface treatment, BST) for the long-term care of asphalt paving with low traffic and low speed. 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. This 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 the reserve study. See component #120 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. Seal coating should never be done when showers are threatening. Apply two coats of flood application of quality asphalt emulsion. Incorporate any striping and curb repair into this project. Fill cracks and clean oil stains promptly in between cycles as routine maintenance. For reference see

<http://www.pavementinteractive.org/article/bituminous-surface-treatments/>

<http://www.pavementinteractive.org/article/pavement-evaluationpavement-management/>

For a general overview of Asphalt Seal Coat Treatments review this website:

<http://www.fs.fed.us/eng/pubs/html/99771201/99771201.htm>

Useful Life:
5 years

Remaining Life:
2 years



Best Case: \$ 18,000

Worst Case: \$ 28,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 147 Trash Enclosures - Repair/Replace

Quantity: (8), 8 ft x 12 ft

Location: Scattered common area locations adjacent to parking areas

Funded?: Yes.

History:

Evaluation: Trash enclosure typically had painted wood fence on three sides. The fourth side was a chain link gate with plastic slats. Fair condition noted with limited damage/deterioration observed.

Clean, paint and inspect as general maintenance item or along with larger building projects, not as separate reserve project. Due to high use/abuse, plan to replace as shown here.

Useful Life:
10 years

Remaining Life:
1 years



Best Case: \$ 8,100

Worst Case: \$ 12,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 156 Rockeries - Repair/Replace

Quantity: Extensive linear feet

Location: Scattered common area locations

Funded?: No. Useful life not predictable

History:

Evaluation: Our visual observations of rockery walls were limited, but no substantial and widespread deterioration, or large obvious signs of movement were noted. A proper analysis of a rockery wall is beyond the scope of a reserve study. No information regarding its construction was available to us, which could include how it was installed, including if drainage (critical) was provided, and if the drainage is still fully functioning.

At this time, no large-scale repairs or replacement are predictable. Funding can be added to a future reserve study if conditions dictate. No basis for reserve funding at this time.

Inspect regularly, including drainage, and repair as needed. Evaluate drainage to prevent large-scale problems, see component # 182 Drainage/Strom water for additional information.

If movement or other problems are observed or suspected, consult with civil or geo-technical engineer, landscape architect for evaluation and repair scope.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 160 Pole Lights - Replace

Quantity: (2) wood assemblies

Location: Along roads/parking areas

Funded?: Yes.

History: 2017 light replacement project

Evaluation: Fair condition noted with no significant damage/deterioration observed or reported to us. Painted surface appeared in poor condition with one area with extensive peeling was noted during our limited visual review. Observed during daylight hours; assumed to be in functional operating condition.

Best to plan for large scale replacement at roughly the time frame below for cost efficiency and consistent quality/appearance throughout association.

As routine maintenance, inspect, repair/change bulbs as needed.

Useful Life:
25 years

Remaining Life:
24 years



Best Case: \$ 3,400

Worst Case: \$ 4,500

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 162 Lights: Exterior - Replace

Quantity: Numerous metal assemblies

Location: Throughout common areas

Funded?: No. Useful life not predictable

History: 2013 majority of lighting replaced

Evaluation: Assorted exterior light fixtures appeared in generally good condition. A few older flood lights, appeared in poor condition but were reported to be scheduled for replaced soon.

No predictable large scale replacement at this time. No reserve funding suggested.

Observed during daylight hours and assumed to be in functional operating condition. As routine maintenance, inspect, repair/change bulbs as needed.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 170 Landscape - Refurbish

Quantity: Moderate areas

Location: Common area open space tracts throughout community

Funded?: No. Annual costs, best handled in operational budget

History: 2014: "Landscape drainage improvements"

Evaluation: Moderate, mature landscape area. The Board reports that landscaping is funded out of operational budget.

The Association did not request an allowance be included in the reserves for projects in the future. No reserve funding suggested.

This component can be used to supplement the operation landscape budget for larger cost projects that occur less frequently than annually. These type of projects can include tree trimming, major replanting, and bark or mulch replacement.

NOTE: Some areas of planting beds are within six inches of the siding. Building code requires minimum of six inch clearance between ground and the siding to help prevent insect and water damage of the structural wood walls beneath the siding. We suggest having the landscapers re-grade adjacent to the building as required to obtain a minimum of six inches clear, although eight inches to a foot would be better.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 175 Irrigation System - Repair/Replace

Quantity: Common irrigation

Location: Throughout common area landscaping

Funded?: No. Useful life not predictable

History:

Evaluation: Our visual observation of the irrigation system was limited to a few visible sprinkler heads. Since the majority of the irrigation system is located beneath the soil, we could not view it, or evaluate its condition. At the time of this study, no information (plans and/or specifications) was provided to us regarding the extent of the irrigation system. No large-scale problems were reported during our study.

No predictable large-scale costs at this time. No basis for reserve funding at this time.

As routine maintenance, inspect, test system and repair as needed from operating budget. Follow proper winterization and re-energize procedures. If properly installed and bedded without defect, the lines could last for many years. Controls for the system can vary greatly in number, cost, and life expectancy. Without additional information these costs are not predictable. Other elements (i.e. sprinkler heads, valves) within this system are generally lower cost and have a failure rate that is difficult to predict. These elements are better suited to be handled through the maintenance and operating budget, not reserves.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 182 Drainage/Stormwater Sys - Maintain

Quantity: Common drainage

Location: Common areas, hidden

Funded?: No. Useful life not predictable

History:

Evaluation: Our visual observation of the irrigation system was limited as the majority of system components are below grade. No reports of repairs or problems. At the time of this study, no information (plans and/or specifications) was provided to us regarding the extent of the irrigation system.

No predictable large-scale costs at this time. Have your landscaper or irrigation specialist periodically unearth sections to check lines for any damage or deterioration. PVC can eventually become brittle and leak (typically not before the 40 year mark of life).

As routine maintenance, inspect, test, and repair system as needed from operating budget. Follow proper winterization and spring startup procedures. If properly installed and bedded without defect, the lines could last for many years. Controls for the system can vary greatly in number, cost, and life expectancy - typically each controller is less than \$500. Other elements (i.e. sprinkler heads, valves) within this system are generally lower cost and have a failure rate that is difficult to predict. These elements are better suited to be handled through the maintenance and operating budget, not reserves.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 195 Water Feature - Refurbish

Quantity: Bed, pump, etc.

Location: Common area

Funded?: No. Useful life not predictable

History:

Evaluation: Water feature was operational during our limited visual review. No specific problems observed or reported to us.

Pumps typically have unpredictable service life and possibility to rebuild; individually lower cost and difficult to predict timing thus does not merit reserve funding. Beds appear to be low maintenance with no predictable large scale refurbishing anticipated at this time. Overall, no components in this area appearing to merit large scale reserve funding.

Water features tend to be problematic. If problems become known and estimates for repairs are given, they can be added to a future reserve study. We recommend regular professional inspections to ensure waterproofing measures and prompt repair as needed.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 199 Entry Sign/Monument - Replace

Quantity: 2 plastic, 2 wood

Location: Entry location

Funded?: Yes.

History: 2009 vinyl signs

Evaluation: Vinyl signs, and wood signs appeared to be in good, legible condition with no significant damage/deterioration noted.

Plan to replace at the interval below based on typical deterioration caused by constant exposure. Funding allowance here can vary significantly depending on style/type desired.

As routine maintenance, inspect regularly, clean/touch up for appearance and repair from operating budget.

Useful Life:
20 years

Remaining Life:
11 years



Best Case: \$ 2,200

Worst Case: \$ 4,500

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Clubhouse

Comp #: 330 Clubhouse Mailboxes - Replace

Quantity: ~ (122) boxes

Location: Clubhouse, main area
Funded?: No. Useful life not predictable
History: 2012 \$8,700 + carpentry costs
Evaluation: Generally very good condition with no significant damage noted. Mailboxes were installed (indoors) in 2012, and appeared to meet the current specification of the US Postal Service.

These durable metal components when housed within an enclosed lobby such as this will typically have a functional life cycle beyond the scope of this reserve study.

As routine maintenance, inspect regularly, clean by wiping down for appearance, change lock cylinders, lubricate hinges and repair as needed from operating budget.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 434 Clubhouse Flooring - Replace

Quantity: ~ 80 square yards

Location: Clubhouse

Funded?: Yes.

History: In 2013, two small carpeted entryways were replaced with tile. +/- 2005 carpeting

Evaluation: Carpeting was noted to be intact and in generally good to fair condition.

Plan to replace at the time frame below, best timed after repainting (see separate component). Wide variety of type and quality available; a mid-range funding allowance is factored below for planning purposes.

As part of ongoing maintenance program, vacuum regularly and professionally clean as needed.

Useful Life:
15 years

Remaining Life:
4 years



Best Case: \$ 4,500

Worst Case: \$ 6,300

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 435 Clubhouse Int Walls - Repaint

Quantity: ~ 6,600 square feet

Location: Clubhouse interior walls and ceilings

Funded?: Yes.

History:

Evaluation: Painted surfaces were observed to be in generally fair condition.

Timing below is used for financial planning purposes. Actual scope and timing of painting project is at the Board's discretion.

Regular cycles of painting are recommended to maintain appearance; best timed just prior to carpet replacement (component #700). Keep touchup paint on site for painting between major paint projects.

Useful Life:
15 years

Remaining Life:
4 years



Best Case: \$ 4,500

Worst Case: \$ 6,300

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 436 Clubhouse Kitchen - Refurbish

Quantity: ~ 15 square feet

Location: Kitchen area

Funded?: Yes.

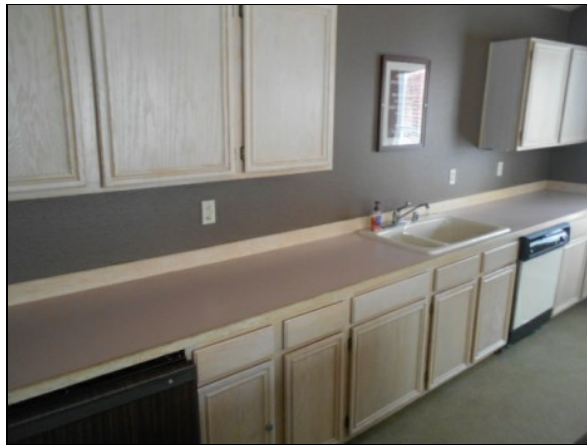
History:

Evaluation: Generally fair condition with no significant damage or deterioration observed at this time.

Simple, durable materials typically have an extended useful life, however, many communities choose to refurbish the kitchen periodically for aesthetic updating; these may include kitchen cabinets (reface), sinks, counter tops, etc. Reserve funding suggested at level indicated below.

Useful Life:
30 years

Remaining Life:
4 years



Best Case: \$ 4,500

Worst Case: \$ 6,800

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 438 Clubhouse Appliances - Replace

Quantity: (2) Dishwasher, sm refrig

Location: Kitchen area

Funded?: No. Cost projected to be too small for reserve funding

History:

Evaluation: Generally fair condition of appliances noted, and although we did not test. No problems reported. Assumed to be in functional, operating condition.

With the refrigerator being a small under counter, the costs of replacement is projected to be too small for reserve funding. Replace as needed using general maintenance funds. No reserve funding suggested.

Repair and replace as needed.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 440 Clubhouse Bathrooms - Refurbish

Quantity: (4) bathrooms

Location: Clubhouse

Funded?: Yes.

History:

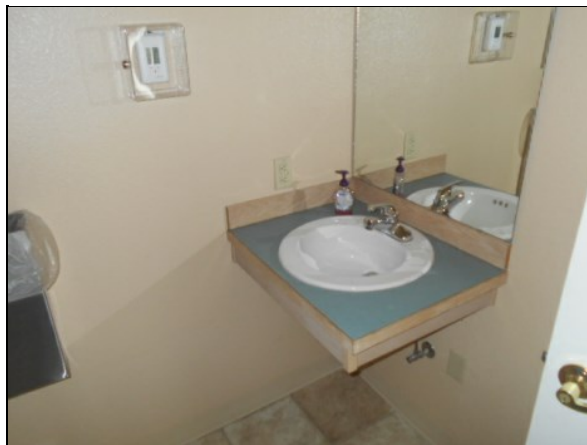
Evaluation: Fair condition noted with no significant damage/deterioration noted.

Prudent planning suggests setting aside funds for periodic large scale refurbishing which may include items such as: plumbing fixtures, vanity area, lighting, flooring, ventilation, accessories, décor, etc.

As routine maintenance, inspect regularly, perform any needed local repairs promptly utilizing general operating funds.

Useful Life:
30 years

Remaining Life:
4 years



Best Case: \$ 2,200

Worst Case: \$ 3,600

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 442 Clubhouse Showers - Refurbish

Quantity: (2) Showers

Location: Shower at first floor bathrooms

Funded?: No. Useful life not predictable

History:

Evaluation: Fair condition noted of shower facilities with no significant damage/deterioration noted.

With tile material no predictable large scale repairs are projected at this time. See previous component for bathroom refurbish.

Clean regularly and repair as needed.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 448 Clubhouse Int. Lights - Replace

Quantity: (3) chandelier fixtures

Location: Interior areas

Funded?: No. Useful life not predictable

History:

Evaluation: Assorted styles appear to be functional and in fair condition.

With ordinary care and maintenance, there is no predictable expectation to replace all at once or in large scale at these protected interior locations. Evaluate needs each year and replace individual fixtures locally as needed using general maintenance and repair funds. If association desires aesthetic upgrade which merits reserve funding, include within reserve study updates.

As routine maintenance, inspect, repair/change bulbs as needed.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 454 Clubhouse Furniture - Replace

Quantity: Numerous assorted pieces

Location: Throughout clubhouse interiors

Funded?: Yes.

History: 2005

Evaluation: Overall fair condition of furniture/furnishings. Mercer Park reported replacing the furniture in about 2005.

This component suggests setting aside funding for periodic replacement / refurbishment of furnishings in order to maintain a quality aesthetic appeal at these highly visible common areas. Typical replacements from similar communities include sofas, chairs, wall décor, tables, etc. There are a wide variety of types and materials available with a mid-range funding allowance factored here. Follow roughly the time frame below.

Useful Life:
15 years

Remaining Life:
4 years



Best Case: \$ 5,600

Worst Case: \$ 12,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 462 Sauna & Steam - Refurbish

Quantity: ~ 8 ft x 8 ft

Location: Club house, first floor

Funded?: No. Useful life not predictable

History:

Evaluation: Generally fair and functional condition.

Light usage reported, so we do not anticipate a predictable project to refurbish within the foreseeable future. Treat any repairs as general maintenance in year of occurrence.

Inspect heater regularly and test for performance, repair promptly to ensure safety. Clean periodically as needed.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 465 Exercise Equipment - Replace

Quantity: Assorted pieces

Location: Clubhouse

Funded?: Yes.

History: 2013 stationary bike

Evaluation: Varying condition and ages as replacement done as needed, not typically all at once.

No expectation of total simultaneous replacement at this time, however, we suggest setting aside funding for partial replacement at the interval indicated below.

Inspect regularly, clean for appearance, maintain and repair promptly as needed from operating budget to ensure safety.

Useful Life:
5 years

Remaining Life:
0 years



Best Case: \$ 3,400

Worst Case: \$ 4,500

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 470 Office Furniture - Replace

Quantity: Desk, chairs, etc...

Location: Clubhouse office

Funded?: No. Annual costs, best handled in operational budget

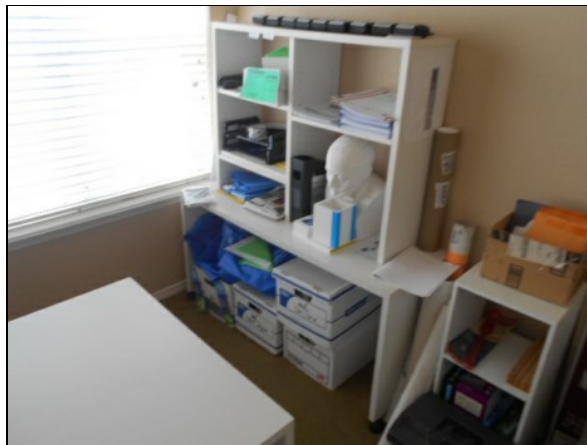
History:

Evaluation: Office furniture and equipment appeared in fair condition during our limited visual review.

Small office with minimal furniture that should function for extended period if not damaged or abused. Anticipate periodic replacement will be funded as general operating/maintenance expense. No reserve funding suggested

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Building Exterior

Comp #: 500 Roof: Asphalt Shingles - Replace

Quantity: ~ 110,000 square feet

Location: Rooftop of building

Funded?: Yes.

History: 2006

Evaluation: Roofing was laminated shingles with closed cut valley. What we believed to be ventilation (the lack of which can greatly reduce useful life) was observed at eave and ridge. Ridge venting appeared to be provided by continuous ridge vents and some gable end louvers. Eave venting appeared to be provided at the roof surface. Visible portions of roof flashing were observed at the head wall, and side wall conditions. Debris and moss was observed on some roof surfaces, typically roof surfaces located close to trees.

Roofing is typically a long-lived component if 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 any other repair needed to ensure waterproof integrity of roof. Keep roof surface, gutters and downspouts clear and free of moss or debris. Moss growth can decrease the life of the roofing shingles and should be removed sooner than later.

Cleaning the moss off the roof with high-pressure water can damage the roof, and greatly decrease its life. Many roofing consultants only allow air cleaning in order to prevent the damage that can be caused by water pressure washing. Another option is liquid applied fungicide (moss killer), which can be used instead of power washing the moss off the shingles.

There is a wealth of information available through Roofing Organizations such as:

National Roofing Contractors Association (NRCA) <http://www.nrca.net>.

Asphalt Roofing Manufacturers Association (ARMA) <http://www.asphaltroofing.org/>

Roof Consultant Institute (RCI) <http://www.rci-online.org/> and

Western States Roofing Contractors Association (WSRCA) <http://www.wsrca.com/>

Useful Life:
30 years

Remaining Life:
18 years



Best Case: \$ 430,000

Worst Case: \$ 500,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 515 Chimney Covers & Flue Caps -Replace

Quantity: ~ (50) covers, (122) caps

Location: Rooftop of building

Funded?: Yes.

History:

Evaluation: Observation of top of chimney was limited to viewing from distance. Flue caps appeared in fair condition. No observation of chimney cover was undertaken during our limited visual review.

As routine maintenance, inspect and clean during roof maintenance. Repair locally as needed. Assuming proactive maintenance, plan for total replacement at roughly the time frame indicated below.

Useful Life:
30 years

Remaining Life:
4 years



Best Case: \$ 46,000

Worst Case: \$ 70,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 517 Crawl Space - Repair/Replace

Quantity: Extensive square feet

Location: Unit buildings

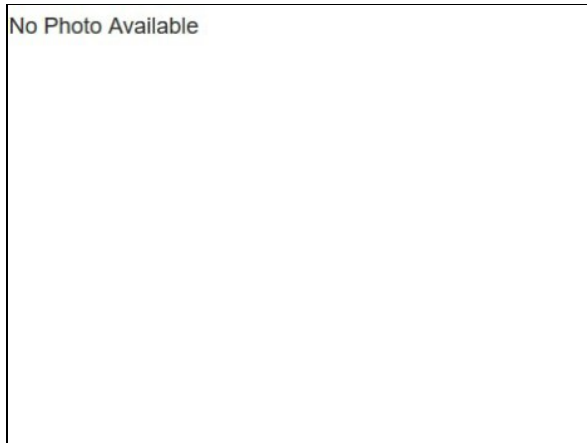
Funded?: No. Useful life not predictable

History: 2014: \$10,700 Repairs made to buildings 4 and 6

Evaluation: No report of any current problems with the crawl spaces.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 520 Siding: Vinyl - Replace

Quantity: ~ 122,000 square feet

Location: Exterior walls

Funded?: Yes.

History:

Evaluation: Vinyl siding was a horizontal clapboard. Horizontal clapboard had an five inch exposure. Generally the siding was in fair condition, with one area that had come loose (see photo). A few damage corner boards were also observed. No view of the critical underlying waterproofing was available as part of our limited visual review. Repair these areas as soon as possible to limit the possibility of water intrusion.

Replacement may be needed due to either (or a combination of) the failure of the underlying waterproofing degrading over the decades, or the end of the useful life of the siding materials from aging resulting in fading and brittleness. Evaluate the siding and the critical underlying waterproofing (typically building paper or house wrap) more frequently as the remaining useful life approaches zero years. Adjust remaining useful life as dictated by the evaluation. Align with window replacement for cost efficiencies.

The underlying waterproofing is critical to keeping the water out of the structural wood framing. As the building ages, the waterproofing will deteriorate and can drop below the level needed to keep the water out of the underling structure. Replacing the underlying waterproofing and flashing is projected to require replacement of the vinyl siding. Vinyl siding will typically fade over the years and when replacing pieces, it may be difficult to match the faded color.

Note: Rehabilitative construction projects with associated costs are equal to or greater than 5% of the assessed value of the units must comply with the requirements of RCW 64.55. <http://app.leg.wa.gov/rcw/default.aspx?cite=64.55> These requirements include building enclosure design documents with waterproofing details by an architect or engineer, and independent oversight during construction to verify compliance with those details.

Project costs can vary depending upon materials chosen and the condition of the underlying structural framing. We recommend the Board conduct research well in advance in order to define scope, timing and costs, including plan for some margin of contingency.

Useful Life:
40 years

Remaining Life:
12 years



Best Case: \$ 1,300,000

Worst Case: \$ 1,600,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 521 Siding: Vinyl - Clean/Inspect

Quantity: ~ 122,000 square feet

Location: Exterior walls

Funded?: No. Board reports this is to be funded from operation budget, not reserve account

History: 2014. \$28,600 for bldg and parking lot 2012 \$16,000

Evaluation: No moss growth and organic staining was observed on the siding that was sampled for this reserve study. A few damaged corner boards were also observed.

2018 Board reports this is to be funded from operation budget, not reserve account

Clean vinyl siding as needed to maintain appearances. When washing be careful to not spray high-pressure water beneath the vinyl. Two types of washing are typically available. Power washing is the least expensive. Hand washing is also available. In our experience, the condos have both types of washing reported that they preferred the hand washing, as it was a better job even though it costs more.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 525 Exterior Surfaces- Paint/Caulk

Quantity: Limited square feet

Location: Ext wood trim (roof eave & fascia, deck fascia, entry doors & trim, garage doors & trim, stair stringers, & chimney trim)
Funded?: Yes.

History: 2012 \$17,000 (partial)

Evaluation: The painted surface of the wood trim appeared in varying condition with some areas with peeling and other areas that appeared in good condition Siding material was vinyl which typically does not require painting. Mercer Park reported trying to do some painting every year.

Useful life below is estimated for financial planning purposes. Evaluate and adjust remaining useful life, as it approaches zero years.

Repair areas as needed prior to painting/caulking. As routine maintenance, inspect regularly (including sealants, if any) repair locally and touch-up paint as needed. Typical Northwest paint cycles vary greatly depending upon many factors including; type of material painted, surface preparations, quality of primer/paint/stain, application methods, weather conditions during application, moisture beneath paint, and exposure to weather conditions.

Additional information on painting is available through:
American Coatings Association at <http://www.paint.org/> and
Master Paint Institute at <http://www.paintinfo.com/>

Useful Life:
8 years

Remaining Life:
0 years



Best Case: \$ 100,000

Worst Case: \$ 140,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 535 Windows, Sliders - Repair/Replace

Quantity: ~ (530) windows

Location: Exterior walls

Funded?: No. Board suggests owner's responsibility, not Association

History: None known

Evaluation: Board reported they have obtained an opinion from an attorney that windows are individual owner's responsibility to maintain, repair and replace.

Windows are a key element of the building envelope (waterproofing system) and historically have been a key point of significant water infiltration for condominiums in general, resulting in water damage to the common structural wood framing. Water damage of the common structural wood framing is usually the Association's responsibility, and typically is very expensive to remedy.

Even though windows are reported to be individual owner's responsibility, we suggest it is in the Associations best interests to control the quality of windows installed as well as the installation, and waterproofing requirements. It may be in the Association's best interest to require individual owners to replace their windows at the time of major siding projects undertaken by the Association.

At minimum, we strongly recommend the board develop an architectural control process that includes standard specifications for:

Window quality - (design pressure rating),

Window frame type- (type of material, manufacture & model #).

Installation details - such as waterproofing and/or flashing.

This should include integrating the new window and flashing with the existing cladding's waterproofing system. Architectural control specifications should increase the likelihood of consistent quality installation and lessen the chance of poor materials and/or poor installation leading to water infiltration and causing water damage to the common structural wood framing and/or other ancillary components.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 538 Doors: Exterior - Maintain/Repair

Quantity: ~ (122) doors

Location: Exterior walls

Funded?: No. Board suggests owner's responsibility, not Association

History:

Evaluation: Exterior entry doors were wood with wood frames. Doors typically had a screen door. Doors are generally well protected from the rain.

Doors appeared in fair condition. No wide spread problems were observed.

Board suggests owner's responsibility, not Association. No reserve funding suggested.

Individual unit entry doors are expected to receive limited use (wear and tear). Door painting is included as part component #525. Inspect periodically and repair as needed to maintain appearance, security and operation with maintenance funds. Touch up paint as needed between painting cycles.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 545 Decks: Elastomeric - Replace

Quantity: ~ 4,000 square feet

Location: Adjacent to dwelling units

Funded?: No. Board suggests owner's responsibility, not Association

History: Decks were being recoated on an as needed basis

Evaluation: No decks were accessed for sampling during our limited visual review. Association reports decks are individual owners responsibility. No reserve funding suggested.

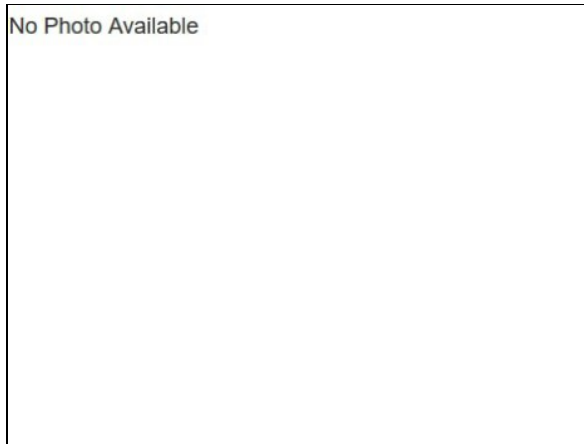
2014 rough estimates by the Association was that about half of the decks have an elastomeric coating and about half of the decks have a pvc (sheet vinyl) membrane.

The life of the elastomeric coating is about 5-7 years depending on its exposure to sunlight (UV). The most common problem we see is the lack of regular cycles of elastomeric coatings on decks, leading to water infiltration and damage of the underlying wood structure. We believe it is in the Association's best interest to preemptively require re-coating every 5-7 years in order to avoid the larger cost of repairing the water damage.

Sheet vinyl (PVC) membrane typically have an approximate 12 year life.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 546 Decks: Sheet Vinyl - Replace

Quantity: ~ 4,000 square feet

Location: Adjacent to dwelling units

Funded?: No. Board suggests owner's responsibility, not Association

History: Decks were being recoated on an as needed basis

Evaluation: No decks were accessed for sampling during our limited visual review. Association reports decks are individual owners responsibility. No reserve funding suggested.

See component # 545 for typical notes.

Useful Life:
0 years

Remaining Life:

No Photo Available

Best Case:

Worst Case:

Cost Source:

Comp #: 550 Rails: Decks & Stairs- Replace

Quantity: ~ 4,400 linear feet

Location: Adjacent to decks and entry stairs

Funded?: Yes.

History: Deck rails were last painted in 2013

Evaluation: Generally the painted, wood rails appeared in varying condition. Most of the railings appeared to be in fair condition, but a few were in poor condition. Rails were attached through the waterproof surface of the deck. Rails are reported to be replaced with "Azek" (composite) railings. Association reports they are replacing the rails at bldg 3 building in 2017, with the remainder to be replaced in 2018.

We suggest reserve funding for regular intervals of total replacement as indicated below. Evaluate rail system as remaining useful life approaches zero years and adjust life accordingly.

As routine maintenance, railing connections should be inspected at least annually for structural and/or waterproofing issues. Repair promptly as needed using general operating/maintenance funds.

Useful Life:
30 years

Remaining Life:
0 years



Best Case: \$ 300,000

Worst Case: \$ 340,000

Lower allowance

Higher allowance

Cost Source: Client cost History: 2017 Costs of bldg #3 extrapolated

Comp #: 594 Entry Stair Landing - Recoat

Quantity: ~ 533 square feet

Location: Entry side of buildings - Bldg's 11-13

Funded?: Yes.

History: 2016

Evaluation: In 2017 Association reported all the landing/ramps have been re-coated with elastomeric coating in 2016.

Elastomeric deck surfaces are typically a three-coat system. Re-application of the topcoat is required to maintain waterproof integrity. This is the most cost effective life cycle. Extending time between coatings runs the risk of increased costs due to wear on the second coat in addition to the topcoat. This also increases the risk of water penetration, which can damage the underlying structural components and could greatly increase costs. The top coat loses thickness each year, primarily from exposure to ultraviolet sunlight and to a lesser extent wear and tear. If more than the topcoat is allowed to wear off, the surface may still appear to be in 'good' condition, but the waterproof integrity may be compromised by "pin holes". Once water gets past the coating, it can damage the underlying structure of the deck. Evaluate and repair as needed before recoating. Check with your specific manufacturer for cleaning instructions to avoid damaging the coating. Many manufacturers allow cleaning with mild solution, such as soap and water, TSP, etc...

Many deck coatings come with a warranty. A typical warranty is three to five years if properly maintained. Some warranties can be extended if the re-coating is performed within a certain time frame. Check your warranty paperwork to determine the necessary timing of re-coating and maintenance.

Useful Life:
6 years

Remaining Life:
4 years



Best Case: \$ 21,000

Worst Case: \$ 30,000

Lower allowance

Higher allowance

Cost Source: Client Cost History,extrapolated

Comp #: 597 Stairwells - Repair

Quantity: Extensive square feet

Location: Building Exterior

Funded?: Yes.

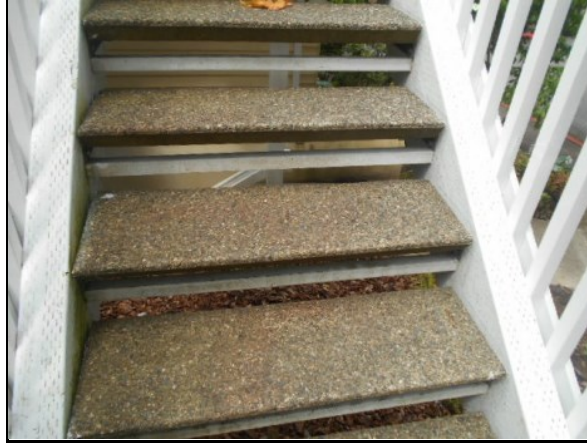
History: 2014 \$2,900 building 13 stairwell repaired.

Evaluation: Stairs appeared in fair condition.

Association requested funding for replacing one stair per year

Useful Life:
1 years

Remaining Life:
0 years



Best Case: \$ 2,100

Worst Case: \$ 4,200

Lower allowance

Higher allowance

Cost Source: Estimate Provided by Client

Comp #: 599 Building Envelope - Inspection

Quantity: Inspection, report

Location: Waterproofing components

Funded?: No. Useful life not predictable

History:

Evaluation: No reported problems at this time. A reserve study is a budget model limited to visual exterior observation and research. It is outside the scope of our services and the purpose of a reserve study to assess the adequacy of the building envelope performance as many of the key details are hidden from view. Any areas of concern observable from exterior observation have been noted in the various component field notes throughout this report. We highly recommend regular professional inspections to evaluate the performance of the building envelope by a qualified engineering, architectural or building envelope consulting firm. Many Associations are required by their declarations to have annual inspections by a qualified Architect or Engineer to assess the physical condition of the building envelope enclosure. The building envelope inspection typically covers the roofs, decks, siding, windows, doors, sealants/caulking, and flashings. Provide more frequent inspection as the buildings age and the waterproofing typically deteriorates. Building envelope inspections can be either visual or intrusive. An intrusive investigation (where finish materials are removed to view and better understand the underlying waterproofing systems and their performance) should be of greater benefit, since a visual review provides only a limited amount of information derived from surface observation.

Cycles for future maintenance, repair and replacement work of building exterior common areas are identified throughout this report within their respective components.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 600 Garages - Maintain/Repair

Quantity: ~ (112) parking spaces

Location: Parking structures, attached and detached

Funded?: No. Included as part of components #500 & #520

History:

Evaluation: The components (roofing siding) of the garage structures is included as part of components # 500 Roofing and #520

Siding: Vinyl.

No separate reserve funding required.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 605 Garage Doors - Repair/Replace

Quantity: ~ (112) wood 8 ft x 7 ft

Location: Parking garages

Funded?: No. Useful life not predictable

History:

Evaluation: Painted, wood doors appeared in fair condition, with no damage or significant repair history reported. Painting of doors is included in component # 525 Exterior Surfaces. No separate reserve funding suggested.

Single car garage door are not predictable for large scale repairs. Repair as needed using general maintenance funds.

Regular maintenance, inspection and service as needed is recommended for maximum life.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Systems

Comp #: 900 Plumbing - Repair

Quantity: Supply, drain systems

Location: Throughout common areas of association

Funded?: No. Useful life not predictable

History:

Evaluation: The vast majority of the plumbing system is hidden and not visible for review. A reserve study conducts only a limited visual review. No testing was conducted and no problems were observed or reported.

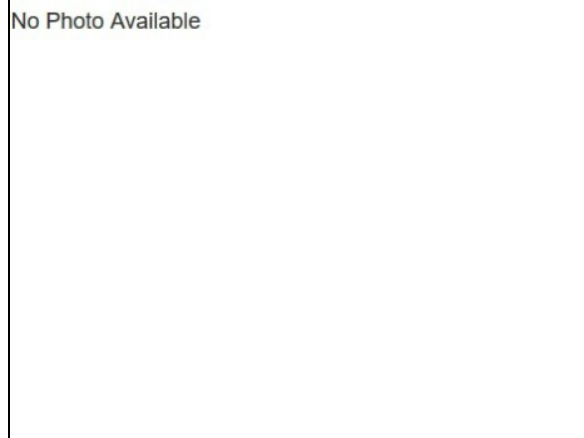
Typically, if installed per architectural specifications and local building codes without defect, there is no predictable time frame for large-scale repair/replacement expenses within the scope of our report. Current Washington state reserve study law requires plumbing to be considered in the reserve study. Patterns of significant repair expenses, leaks, poor flow, sediments in line should be evaluated promptly by qualified plumber and / or engineer.

Some types of piping used historically are known to be life limited. Manufacturing defects become apparent from time to time and certain site conditions (e.g. galvanic corrosion, certain minerals in contact with piping, chemical reactions, etc...) can contribute to premature deterioration of plumbing system. We highly recommend you have a qualified plumber or consultant provide an evaluation of your system to assess condition, material types and note any deficiencies.

Treat minor repairs as ongoing maintenance expense.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 905 Electrical System - Repair

Quantity: Main, branch systems

Location: Throughout common areas of association

Funded?: No. Useful life not predictable

History:

Evaluation: The majority of the electrical system was not visible for review. Analysis of the electrical system beyond a limited visual review is not within the scope of a reserve study. No large issues or problems/defects were reported.

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 review. Some electrical system components are known to be life limited. Manufacturing defects become known from time to time and certain site conditions can contribute to premature deterioration of electrical components. Periodic inspections and maintenance by a master electrician may become necessary. Some associations employ infrared or other testing methodologies to identify potential trouble spots.

A good resource book available for purchase is NFPA 70B Recommended Practices for Electrical Equipment Maintenance.

[http://www.nfpa.org/catalog/product.asp?](http://www.nfpa.org/catalog/product.asp?title=&category%5Fname=&pid=70B13&target%5Fpid=70B13&src%5Fpid=&link%5Ftype=search&icid=&Page=1)

[title=&category%5Fname=&pid=70B13&target%5Fpid=70B13&src%5Fpid=&link%5Ftype=search&icid=&Page=1](http://www.nfpa.org/catalog/product.asp?title=&category%5Fname=&pid=70B13&target%5Fpid=70B13&src%5Fpid=&link%5Ftype=search&icid=&Page=1)

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Comp #: 965 Fire Alarm Panel - Replace

Quantity: 2 or 3 panels

Location: Reported at only some of the buildings

Funded?: Yes. Useful life not predictable

History:

Evaluation: No access was provided to the fire panel during our limited visual review. Mercer Park reported that only some of the buildings have fire panels. Quantity of fire panels was not known.

Have your vendor quantify the number of fire panels and put together a repair or upgrading plan. Funding, if needed, can be added to a future reserve study when costs become known.

Manufacturers can periodically discontinue support of panel and parts / service availability may therefore be limited in coming years. ADA work will likely need to be performed periodically (e.g. strobes) and devices (e.g. speakers, detectors) in common areas and units as well. Research and experience suggests planning for replacement at roughly the time frame below. Begin formulation of specifications and obtain allowances in advance of need - replace proactively to ensure safety.

Useful Life:
20 years

Remaining Life:
0 years



Best Case: \$ 10,000

Worst Case: \$ 24,000

Lower allowance

Higher allowance

Cost Source: 2017 Research with AA Fire Safety 206-284-1721 Rick R

Comp #: 999 Reserve Study - Update

Quantity: Annual update

Location: Common areas of association

Funded?: No. Annual costs, best handled in operational budget

History: 2016 NSV completed in 2015

Evaluation: Per Washington law (RCW), reserve studies are to be updated annually, with site inspections by an independent reserve study professional to occur no less than every three years to assess changes in condition (i.e., physical, economic, governmental, etc...) and the resulting effect on the community's long-term reserve plan. Most appropriately factored within operating budget, not as reserve component.

Useful Life:
0 years

Remaining Life:



Best Case:

Worst Case:

Cost Source: