

Your HOA-FY18

Chantilly, VA

Level I Full Reserve Study

April 26, 2017



Prepared for:

Board of Directors



Engineer

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EXECUTIVE SUMMARY

KEY TO UNDERSTANDING STUDY RESULTS – The purpose of a reserve study is to establish a financial plan for keeping the property’s common and limited common elements in good repair. The plan is developed by identifying the component, assessing its condition and estimating both the time when work will be needed and cost of work. In a **PM+** study these entries can be found beginning on page A1, columns (1), (4) and (5). Those entries combined with reserve savings, current reserve contribution, interest and inflation rates and how much of a contingency should be preserved to fund unforeseen events are the factors that determine the reserve contribution.

RELEVANT DATA

<i>1st Study Year</i> FY18	\$240,000 <i>AOH Start FY18</i> ♦
<i>FY Begins</i> 1-Jan-18	37,000 <i>Your Contribution in FY17</i> ♦
<i>Inspection Date(s)</i> 25-Apr-17	1.76% <i>Inflation</i> ♦♦
<i># Units</i> 140	2.82% <i>Interest</i> ♦♦

- ♦ **AOH** (cash/investments start of fiscal year) and **Current Year Contribution** were provided to **PM+** and were best estimates available when provided, they are not audited amounts.
 - ♦♦ **INTEREST AND INFLATION** factors¹ best project the future needs of the property. Inflation is based on the last ten-year average for the Consumer Price Index (CPI); interest on savings is based on the ten-year average of the Constant Maturity Yield for the 10-Year U.S. Treasury note.
- NOTE** – If changes to amounts/factors are desired **PM+** will provide a revised study, if requested.
- **THE FOLLOWING TABLE COMPARES AND SUMMARIZES** the reserve funding plans. Association column is based on the contribution approved by the board of directors or last year’s contribution adjusted for inflation. Each portrays total funding, amounts expected from interest and contributions, and minimums and maximums year end balances anticipated over 30 and 50-years:

CONTRIBUTION & FUNDING SUMMARY

	Association²	PM+
	Planned	Recommended
	Contribution	Contribution
<i>Reserve Contribution FY18</i>	\$37,650	\$32,290
<i>Avg Owner Contribution FY18</i>	269	231
<i>Avg Owner Contribution/Month</i>	22.41	19.22
<i>30-Year Income</i>	1,818,920	1,507,610
<i>Income From Interest</i>	347,470	245,800
<i>Income From Assessments</i>	1,471,450	1,261,810
<i>30-Year Min Balance</i>	256,050	126,060
<i>30-Year Max Balance</i>	643,260	401,410
<i>50-Year Min Balance</i>	661,280	209,020
<i>50-Year Max Balance</i>	1,321,870	585,540

ANALYSIS:

- Study findings are shown above and can be summarized - “the association’s current contribution is more than needed to meet the reserve needs of the property.”

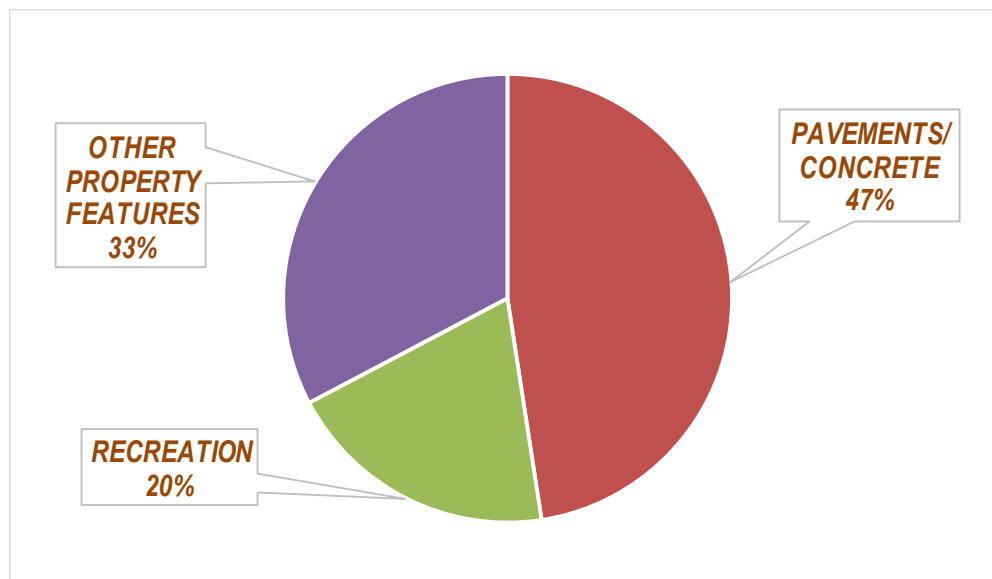
1. Although factors used may not prove to be precise they should be reasonable predictors of cost increases and contributions needed to support the reserve requirement over the life of the study.
 2. If the study is being done for other than the current fiscal year, inflation is applied to prior year contribution.

- Both the association planned contribution and PM+ recommended contribution use the “Cash Flow” method as defined by the Community Association Institute (CAI) and the Association of Professional Reserve Analysts (APRA) for determining the reserve requirement. Most professional reserve providers, accountants and managers agree cash flow is the preferred method for funding reserves.
- “Component” method calculations are also provided to show the contribution needed if this method is used. Difference between cash flow and component method is cash flow averages the annual expenses over the life of the study to level out the needed contribution, yearly increases are mostly attributable to inflation. Component method is driven mostly by the estimated cost and remaining useful life for the next time work may be needed. Consequently, owner contributions will vary significantly from year to year. See page A3, columns (17) and (20), for a comparison of the contribution plans. Regardless of the plan chosen, both plans require the same amount of funding to pay 30-year expenses. Cash flow studies are considered valid for at least three years before updating; component studies should be update annually.
- The recommended owner contribution assumes interest earned on savings will be applied to the reserves and not used to offset operating account expenses or used for other purposes. If interest is not applied to the reserves, then the annual contribution will need to be increased by the interest amount.
- Funding plan dollar amounts shown on page A3 in columns (15), (18) and (21) are the approximate year end balances, both minimum and maximum, that can be expected if the plans are funded as shown. Properly funded plans will meet the following objectives: 1) funds are always available for needed work, 2) there is always a minimum savings balance available to provide for unforeseen contingencies, and 3) when studies are updated, there is not a substantial increase needed to meet the reserve requirement. To avoid substantial increases **PM+** studies take into consideration the first thirty-years of the study and an additional twenty-years, making the "look at" period a total of fifty-years. The 50-year projection is to assure the recommended contribution is based on a sound long range analysis of the property's reserve needs.

RECOMMENDATION:

Fund the reserves to the recommended amount.

WHERE THE CONTRIBUTIONS TO THE RESERVES GO IN 30-YEARS:



STUDY INFORMATION

THIS STUDY is the initial engagement for the property by **PM+**. **PM+** has neither collaborated with nor provided consulting advice to others on issues pertaining to the property.

THIS IS A LEVEL I FULL STUDY with on-site visit. The association requested a Level I Full Study.

STUDY WAS DONE in its entirety by Mario B. "Ben" Ginnetti, a registered professional engineer (**P.E.**) licensed to practice engineering in the states of Virginia, Maryland and the District of Columbia. Mr. Ginnetti is also a CAI Certified Reserve Specialist (**RS**) and a Professional Reserve Analyst (**PRA**).

RESERVE STUDY criteria is defined by the Community Association Institute (CAI) and the Association of Professional Reserve Analysts (APRA). In complying with the criteria this study compares the "Associations" current funding plan to the two recommended methods for preparing reserve studies, "Cash Flow (AKA Pooling)" and "Component." This is a reserve study only - no other use is intended.

STUDY WAS COMPILED in accordance with generally accepted standards and represents our professional opinion on the components, timing and dollar amounts that should be budgeted for repair and replacement. In compiling this study information was obtained from drawings, field measurements, visual observations and management (information provided by management is considered to be reliable). Also taken into consideration are construction features, current conditions and component age. Testing was not performed, nor was demolition done or panels removed to determine conditions that are not obvious. Based on our observations and the information gained during the visit this study contains, to the best of our ability, all material issues required to determine the funding needed to meet the property's reserve requirement.

FOR PROPERTIES LOCATED IN THE STATE OF VIRGINIA, Virginia Statutes, 2003 Condominium and Property Owner's Association Act require the association to conduct reserve studies at least every five years, review the results of the study at least annually and make adjustments as necessary unless the condominium instruments/declaration imposes more stringent requirements. Your attention is called to Sections 55-79.83:1 or 55-514.1 of the Statutes for the complete text.

AGE, UNITS AND STYLE

Constructed in 1997.

140-units; 70-single family, 70-townhomes.

Major amenities – tot-lot.

CASH FLOW AND COMPONENT METHOD STUDIES

This study was calculated using both the Cash Flow and Component methods. A synopsis of each method:

CASH FLOW METHOD - This method develops the funding plan by having the annual contributions offset the variable annual expenses. All expenses are averaged over the life of the study to calculate the annual contribution needed to support the reserve requirement. Yearly contribution increases are mostly attributed to inflation.

COMPONENT METHOD - This method develops the funding plan by dividing the remaining useful life into the balance needed to fund the component for only the next cycle of work. Yearly contributions can vary significantly from year to year depending on where the components are in their life cycle. Contributions needed to pay expenses will equal the cash flow method over the life of the study.

FUNDING GOAL

This study complies with the "Threshold Funding Plan" established by the Community Association Institute (CAI) for reserve studies. Funding goal objective is to keep the reserve balance above a specified dollar or Percent Funded amount.

IN DEVELOPING the reserve we consider components that have a predictable life cycle as well as those that will

most likely need annual maintenance and repairs to keep them in serviceable condition. They are as follows:

PREDICTABLE LIFE CYCLE

These components have a predictable life cycle (an average useful life). At the end of its useful life total replacement will be needed.

ANNUAL ALLOWANCES

We reserve an average annual amount for these components. They are typically "life of the property" or long lasting components that do not have a predictable life cycle. We assume the association will keep these components in satisfactory condition with timely spot repairs.

FOLLOWING CONSIDERATIONS should be taken into account to properly manage the reserves: 1) properly funded reserves avoids "special assessments", 2) each owner should pay their fair share for the time they use the component, 3) when reserve funds are available the Association is more inclined not to defer work; deferral results in additional deterioration and "catch-up" costs to restore the component to a good condition, 4) government mortgage guarantees agencies, i.e. FHA, require a current reserve study to be available before backing a loan, and 5) some state laws require them. In addition to these considerations, a new factor has recently become apparent. Years ago owners were poorly informed on the importance of the reserves and paid very little attention to whether or not a property had an adequate plan for funding the reserves. With the inclusion of reserve tables in resale packages and other publicity, many potential buyers are now verifying the reserve status before they buy.

ALTHOUGH we use generally accepted techniques and best information available, it is possible actual costs and useful lives can vary significantly from our estimates. We recognize that possibility and attempt with our methodology to arrive at the overall funding recommendation that will avoid, or minimize the amount of funding if a special assessment is needed to do reserve work.

FOR THE RESERVES to be an effective budget management tool it will need periodic updates. Because reserves on hand, current costs, quality of maintenance, acts of God, vandalism, and useful life can vary from year to year, a periodic review will assure it remains an effective management tool. We recommend studies be updated every 3 years.

UNLESS OTHERWISE NOTED this study does not take into consideration any work the association may need to correct hazardous or defective conditions, such as issues with asbestos, radon, lead, mold, FRT, etc., nor will it fund major projects to repair/replace facades, building tension cables, utilities and other essential systems. Projects of this nature require the services of engineers or other consultants to determine scope, timing and projects costs. If requested, once costs and project timing are known, we will provide a revised study at no additional cost.

FOR ANY RESERVE PROJECTS in progress on the date(s) of our visit our observation of the work should not be considered a project audit or quality control inspection. We leave that to others to determine.

IF WE DESCRIBE PREVENTIVE MAINTENANCE recommendations in this study they are intended to be general in nature and the most common tasks needed to extend useful life. They are not all inclusive; we do not imply that is all that is necessary for good maintenance. Manufacturers' brochures, service specialty companies, and other qualified sources should be consulted to establish the full array of actions needed for proper preventive maintenance.

FUNDING FROM RESERVE VERSUS OPERATING ACCOUNT - There could be components in this study the association is funding from the operating account. When there are we recommend they be funded from the reserves. When components are worked on it usually extends their useful life - a proper reserve expense. Reserve funds are intended to keep property components in good repair and to replace those that need replacing; operating funds are intended for maintenance and reoccurring operating expenses.

MAINTENANCE/REPAIR/REPLACEMENT TIPS & RESERVE CONSIDERATIONS

THERE ARE THREE LEVELS of care needed to maximize the useful life of equipment and property components: 1) Maintenance, 2) Repair and 3) Replacement.

MAINTENANCE is taking care of a component by doing such tasks as sealing pavement cracks to prevent water from undermining the base, painting to prevent metal corrosion or wood rot, lubricating moving parts on mechanical equipment, fan belt adjustments, etc. It involves the least expenditure of funds and is the best way to maximize useful life. Repair is replacing a portion of a component, such as, a section of pavement, a part of a roof, an air conditioning compressor, etc. It's usually more expensive than maintenance. The most costly is replacement. It involves the entire replacement of the component.

APPLICATION of good maintenance and repair techniques can be explained by the following example: An asphalt parking lot of 1000 square yards develops a 10 foot long crack in the surface. The crack can be sealed for about a dollar a linear foot. By doing so, water will not seep through the asphalt causing damage to the base course. That simple maintenance action extended the useful life of the pavement at minimum cost. Assume the crack was not sealed and it grew to a 12' by 12' base damaged area. Cost of repairs would be approximately 60 times as much as fixing the crack. If the damaged area was not repaired and eventually the entire lot had to be replaced it would cost considerably more. Therefore, the prudent thing to do is good maintenance. It's the least costly of the three levels of work.

PRIOR TO TOTALLY REPLACING a component, e.g., a roof, a fence, an air conditioner, etc., all measures should be taken to extend the useful life of the component with repairs. If the roof is leaking do not automatically think the entire roof needs to be replaced. Most leaks occur around penetrations and flashed areas and they can be repaired for less than replacing the entire roof. Fence posts almost always rot out at ground level before the rest of the fence. Posts can be replaced without purchasing a complete new fence. The same applies to most mechanical/electrical equipment. Tube leaks frequently occur in boilers; compressor failures occur in air conditioners and circuit breakers wear out in electric panels. These kinds of failures are repairable without replacing the entire component. The reserve table should be used as an aid in establishing budgets - not as a work plan. When used as a budget management tool its effectiveness will be recognized when funds are readily available to do work - when it must be done. Do not use the remaining useful life data as a work plan. It should be treated as a "window of probable expectancy", based on statistical information, historical trends, conditions at time of survey and experience of when repair or replacement is most likely to be needed. Actual work should not be done until needed. For example, if paving is estimated to need replacement in five years but it's not a problem at that time, put it off until it is a problem. Conversely, if repairs are necessary sooner, do them sooner.

WHEN CONTRACTING for services, seek competitive bids and purchase only what's necessary to restore the component to its "like original" condition. Include state-of-the-art improvements but avoid over buying or substantially enhancing a component beyond its original condition. Such improvements are not included in the cost estimates.

CATASTROPHIC FAILURES to such components as footers, foundations, floors, exterior walls and total replacement of utility systems, etc., are not included in the table. They are not included because they are not predictable and it is rare that these components have to be replaced in total. We do recommend a reasonable annual amount be set aside for some repairs and reflect that in the reserve table.

FUNDING FOR RESERVES SHOULD BE FAIR TO ALL OWNERS; past, present and future. The worst case scenario for a property is to have no money set aside to pay for repairs/replacements forcing the current owners to pay the total cost. Additionally, having insufficient reserves also presents some injustices as illustrated by the following example:

Mr. and Mrs. "X" owned a unit at the property for the first ten years of its existence when reserve funding was suppressed and insufficient to take care of future problems. Mr. and Mrs. "X" sell their unit and leave. Five years after

they leave the pavement and sidewalks need to be repaired. Mr. & Mrs. "Y" now own the unit and receive notice they are to be "specially assessed" to pay for the repair costs.

For demonstration purposes let's say the pavement and sidewalk repairs costs \$150,000 and the association has \$50,000 in the reserve account. Let's also assume there are 100 units at this property.

Over the last fifteen years, past and present owners set aside \$50,000 to take care of the \$150,000 expenditure. Expressed in \$/year that equates to \$3,333/yr. or \$33.33 per owner per year.

Mr. & Mrs. "X" had the benefit of good paving and sidewalks for 10 years at a total cost to them of \$333.30. Unfortunately for Mr. & Mrs. "Y", they only used the components for five years, but it will cost them \$1166.50 for their share of the repairs.

Calculations for the above are as follows:

$$5 \text{ years they lived there} \times \$33.33/\text{yr.} = \$166.50$$

The difference between amount in reserves and repair costs divided by number of unit owners:

$$\begin{aligned} (\$150,000 - 50,000) / 100 &= \underline{\$1000.00} \\ \text{Total cost to Mr. \& Mrs. "Y"} &= \$1166.50 \end{aligned}$$

Or, said another way:

Mr. and Mrs. "X" used the components for 66% of their useful life but only paid 22% of the repair cost.

Mr. and Mrs. "Y" used the components for 34% of their useful life but had to pay 78% of the cost.

For funding to be fair all owners should contribute their share of the costs for the period of time they use the component.

READING and UNDERSTANDING TABLES & CHARTS**RELEVANT DATA**

Study fiscal year, inspection date(s), units, association's financial data, and interest/inflation rates.

CONTRIBUTION SUMMARY

Financial summary of study results.

TABLE OF REPAIR & REPLACEMENT RESERVES

The Repair and Replacement Table shows the common or limited common element, average and remaining useful life, and estimated cost for work. This information, for the most part, is self-explanatory; however, when we believe more information is needed, we provide comments or use photographs.

Column

- (1) The property components the association should include in the reserves. Where a 15%, 30%, etc., is shown it means total replacement of the item is not anticipated. If we have omitted or added components that are not common or limited common area responsibility, please inform us so we can provide a revised table. It also applies if the association accomplishes the work from their annual operating expense and a reserve set-aside is not needed. If components are included that are operating expenses, we leave it to others to determine the correct tax consequence of the component.
- (2) Approximate quantity and unit of measure. The following abbreviations are used; however, they may not all appear in this study:

AC – Acres	LF - Linear Feet	TN - Tons
AOH - Amount-On-Hand	LS - Lump Sum	UN - Units
AnAvg - Annual Average	HP – Horsepower	> - Greater Than
BLD - Building	RC - Replacement Cost	< - Less Than
EA - Each	SF - Square Feet	
CY - Cubic Yards	SY - Square Yards	

- (3) The components' average useful life (Avg). Leading publications on useful life data, our own experiences and historical trends are used to determine average useful life.
- (4) Our best estimate of the remaining useful life (RUL). Some components in the table may not fail precisely as shown. We use the remaining useful life in conjunction with the estimated cost to calculate the annual contribution needed to fund the component. Actual remaining useful life can be significantly different.
- (5) Estimated costs are in current dollars; actual cost can be significantly different. Estimates are based on similar work in the greater Washington area, association experience, industry publications, such as R.S. Means and HomeTech, contractors and other reliable sources. It assumes the association will competitively seek bids and obtain a fair price in today's market. Some work, such as balconies, roofing, garages, façade, boiler and chiller replacements, etc. may need the services of an engineer or architect to determine scope and oversee repairs. Those estimates take precedence over those shown in the table. Some costs can be more predictable than others, i.e., when roofs and pavements are replaced the entire component will most likely be replaced so a total replacement costs can be estimated. Other components, such as closed loop piping, plumbing, electrical and fire protection systems may not need total replacement and will continue to perform with sub-systems being repaired. For these components, we reserve a reasonable amount for this work.
- (6) Distribution of the funds the association had (is projected to have) at the start of their fiscal year or the amount we were requested to use. The program distributes a prorated amount to each component.
- (7) The amount needed to fund the balance of the requirement.

- (8) The contribution needed to fund the 1st year applying the cash flow method. This value is the product of the components and the Funding Plans - 30 Year Projection chart. The annual contribution is calculated so that the reserve balance never falls below the “X” axis and there is always a minimum balance for unforeseen contingencies.
- (9) The contribution needed to fund the 1st year applying the component method.
- Fiscal Years 1 - 10 Expense Projection – Projected cash out-lays over the first ten years of the study.
- Fiscal Years 11 - 30 Expense Projection – Projected cash out-lays over the next twenty years of the study.
- Average Contribution Per Owner - The average contribution needed per owner to fund the 1st year reserve contribution. This amount is not indicative of each owner’s individual contribution.

FUNDING PLANS - 30 YEAR PROJECTION

Column

(10) - Fiscal Year.

(11) - Projected annual expenses.

(12) - Cumulative expenses over 30-years.

(13), (16) and (19) - Interest earned per funding plan based on previous year end balance.

(14), (17) and (20) - Contribution per funding plan, inflation applied.

(15), (18) and (21) - Projected year-end balance per funding plan.

GRAPHS

Graphs depict the projected contributions and year end balances for each plan. The contribution objective should be to have a consistent contribution, year after year, that can be maintained with inflation adjustments. Avoid fluctuating contributions as they can impose financial hardships on owners. The plot objective for the reserve balance is to have the year end balances always above the “X” axis. If it falls below, it indicates a special assessment or loan will be needed to support the reserves.

SUMMARY

- 30-Year Income - projected from interest and owners.
- 30 & 50-Year Minimum/Maximum Balances - includes contingency for unforeseen events.

PROPERTY COMPARISON (NOT SHOWN IN SOME STUDIES)

The “Property Comparison” chart compares the property’s current funding to the last properties we have studied. The comparison shows the maximums, minimums, property averages and medians compared to your property. Property features differ from one property to another so consider these as averages only and not a true comparison on your property to another similar property. Three comparisons are made:

- % Funded - Ratio of the current to the ideal Reserve Balance for each component in the Reserve Table. The ratio is a product of the “used-up” life, useful life and component cost.
- Reserve Depletion Factor - Number of years amount-on-hand will fund (It’s the same as the “go broke” date if no more money is added to the reserves).
- Cost Per Owner – Average contribution per owner needed to meet the reserve requirement. Dollar amounts will vary from property to property based on construction features, common/limited common elements, past contributions to the reserves and other factors that may not result in a true comparison.

Picture of single family housing. Photo deleted in this sample to withhold property identification.

Picture of townhome housing. Photo deleted in this sample to withhold property identification.

Typical view of single family housing and attached homes. Community is comprised of 40-single family and 100-townhomes.



Pavement condition is fair except for area shown in left photo. This area should be repaired to prevent deterioration from spreading. Open cracks also need to be sealed. Pavement upkeep is a major expense for association; effective preventive maintenance can reduce cost and extend pavement useful life. See our recommendations in the "Comments Section" for proper care of asphalt pavements.



Concrete sidewalks need to be kept level to avoid trip hazards. Repairs should be done as needed to keep them in good repair.



Reserve provides for the tot-lots to be replaced at the end of normal useful life and fill replenishment every two years. Children falling on non-absorbing material causes 70% of tot-lot injuries.



Reserve provides for sealing open cracks, periodic color coating, lighting/bench repairs/replacement and court rebuilding at end of asphalt useful life.



When retaining wall total replacement is needed consider installing a modular block (segmented) system. These systems have a longer useful life and require less maintenance.

Typical of retaining walls - top rail usually deteriorate. Rest of the wall is structurally sound - replacing top rail will extend the walls useful life.



Useful life of fencing can be extended by painting/staining, nailing or screw fastening warped boards, straightening and doing other repairs, as needed.

Mail boxes will eventually need to be replaced as locks, doors and hinges wear out. Only townhome boxes are included; single family units are owner responsibility.



Typical street light - reserve entry does not assume all units will be replaced at once but rather spot repairs to posts, fixtures, ballasts, sensors, etc. will be made as needed.



Electric service to entrance feature flood lights, wiring and electric panels are reserve components. As is upkeep of the irrigation system that can be kept in good repair with spot repairs.



A reasonable amount to replace dead or diseased trees and shrubbery. Does not include normal landscaping upkeep, which is funded from the operating account nor large scale improvements.



We reserve for signs to be replaced. Well maintained signs enhance property appearance.

Other Photo's as needed.

APPENDIX A

TABLE OF REPAIR/REPLACEMENT RESERVES AND YEARS 1-10 EXPENSES

COMPONENT	APPROX'MT QUANTITY	USEFUL LIFE AVG REM (YRS)	ESTIMATED COST IN CURRENT \$	DISTR'BTN OF AOH AS OF 1-Jan-18	BALANCE NEEDED TO FUND RESERVE	FY18 CONTRIBUTION		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
						CASH FLOW	COMPONENT METHODS											
(1)	(2)	(3) (4)	(5)	(6)	(7)	(8)	(9)											
PAVEMENTS/CONCRETE																		
PAVEMENTS																		
PREVENTIVE MAINTENANCE	Deleted in Sample	SY	4 1	24,030	10,320	13,710	6,860	6,670	24,030	0	0	0	25,770	0	0	0	0	
PAVEMENT OVERLAY		SY	15 8	146,250	62,800	83,450	5,220	5,080	0	0	0	0	0	0	165,250	0	0	
BASE/SUB-BASE/REPAIRS		SY	15 8	18,280	7,850	10,430	650	630	0	0	0	0	0	0	20,650	0	0	
IMMEDIATE REPAIRS FOR LIFE EXTENSION		LS	NA 1	29,250	12,560	16,690	8,350	8,120	29,250	0	0	0	0	0	0	0	0	
CONCRETE																		
SIDEWALKS/CURBS/GUTTERS OTHER CONCRETE		LF	4 1	4,700	2,020	2,680	1,340	1,300	4,700	0	0	0	5,040	0	0	0	0	
TOTAL PAVEMENTS/CONCRETE				222,510	95,550	126,960	22,420	21,800										
RECREATION																		
TOT LOT																		
METAL AND PLASTIC EQUIPMENT		EA	25 19	50,000	21,470	28,530	750	730	0	0	0	0	0	0	0	0	0	
MULCH REPLISHMENT		EA	2 1	1,000	430	570	290	280	1,000	0	1,040	0	1,070	0	1,110	0	1,150	
TENNIS COURT																		
COLOR COAT/NETS		EA	5 1	3,200	1,370	1,830	920	890	3,200	0	0	0	0	3,490	0	0	0	
MAJOR COURT REPAIRS		EA	20 10	42,000	18,040	23,960	1,200	1,170	0	0	0	0	0	0	0	0	49,140	
LIGHTS/POSTS		EA	30 18	21,600	9,280	12,320	340	330	0	0	0	0	0	0	0	0	0	
10' CHAIN LINK FENCE		LF	30 18	15,120	6,490	8,630	240	230	0	0	0	0	0	0	0	0	0	
PARK BENCHES		EA	30 18	1,900	820	1,080	30	30	0	0	0	0	0	0	0	0	0	
TOTAL RECREATION				134,820	57,900	76,920	3,770	3,660										
OTHER PROPERTY FEATURES																		
ENTRANCE(S)																		
ENTRANCE FEATURE-REPOINT/SINAGE/CLEANING		LS	5 1	2,500	1,070	1,430	720	700	2,500	0	0	0	0	2,730	0	0	0	
FLOOD LIGHTS/ELECTRIC PANEL/WIRING		LS	20 8	2,500	1,070	1,430	90	90	0	0	0	0	0	0	2,820	0	0	
TREES/SHUBBERY																		
DISEASED/DEAD REPLACEMENT		LS	3 1	3,000	1,290	1,710	860	830	3,000	0	0	3,160	0	0	3,330	0	3,510	
FENCING/RETAINING WALLS																		
8' SOLID BOARD FENCE		LF	20 13	59,200	25,420	33,780	1,300	1,260	0	0	0	0	0	0	0	0	0	
6' SOLID BOARD FENCE		LF	10 8	17,500	7,510	9,990	620	610	0	0	0	0	0	0	19,770	0	0	
6' CHAIN LINK FENCING		LF	35 23	7,500	3,220	4,280	90	90	0	0	0	0	0	0	0	0	0	
WOOD RETAINING WALL-RETENTION POND		SF	35 23	45,900	19,710	26,190	570	550	0	0	0	0	0	0	0	0	0	
SITE FEATURES																		
MAILBOX-STREET		UN	25 13	28,000	12,020	15,980	610	600	0	0	0	0	0	0	0	0	0	
POLE LIGHTING		EA	30 18	33,000	14,170	18,830	520	510	0	0	0	0	0	0	0	0	0	
SITE ITEMS		LS	1 1	2,500	1,070	1,430	720	700	2,500	2,540	2,590	2,630	2,680	2,730	2,780	2,820	2,870	
TOTAL OTHER PROPERTY FEATURES				201,600	86,550	115,050	6,100	5,940										
TOTAL RESERVES				\$558,930	\$240,000	\$318,930	\$32,290	\$31,400	\$70,180	\$2,540	\$3,630	\$5,790	\$34,560	\$8,950	\$7,220	\$211,310	\$4,020	\$55,580
							Reserve Contribution FY18	\$32,290	\$31,400									
							Avg Owner Contribution FY18	231	224									
							Avg Owner Contribution/Month	19.22	18.69									

Notes:

All dollars rounded to nearest \$10. Totals may not add due to rounding.
 One year remaining useful life indicates the useful life of the component is used up.

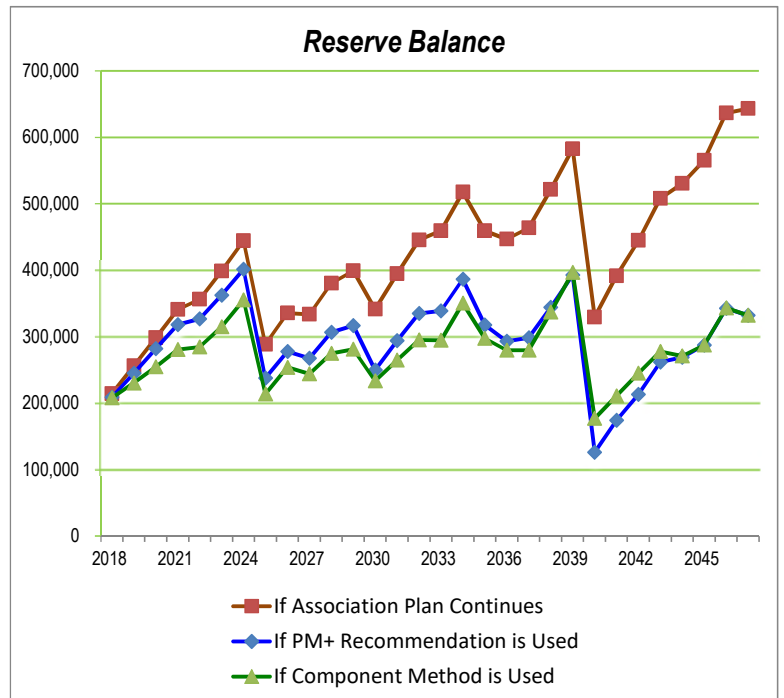
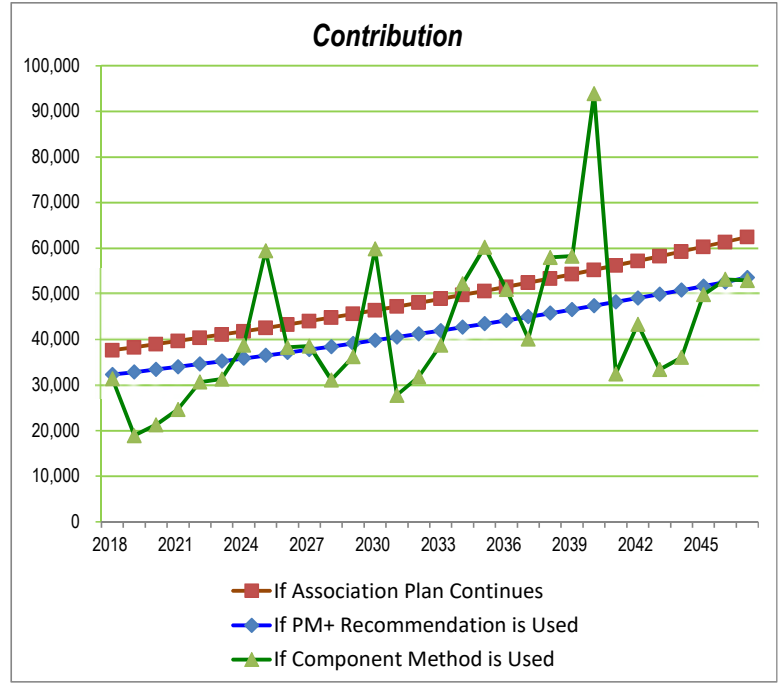
YEARS 11 - 30 EXPENSES

COMPONENT	USEFUL LIFE		ESTIMATED COST IN CURRENT \$	YEARS 11 - 30 EXPENSES																			
	AVG REM (YRS)			2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
(1)	(3)	(4)	(5)																				
PAVEMENTS/CONCRETE																							
PAVEMENTS																							
PREVENTIVE MAINTENANCE	4	1	24,030	0	29,110	0	0	0	31,220	0	0	0	33,470	0	0	0	0	0	37,820	0	0	0	
PAVEMENT OVERLAY	15	8	146,250	0	0	0	0	0	0	0	0	0	0	0	214,680	0	0	0	0	0	0	0	
BASE/SUB-BASE/REPAIRS	15	8	18,280	0	0	0	0	0	0	0	0	0	0	0	26,830	0	0	0	0	0	0	0	
IMMEDIATE REPAIRS FOR LIFE EXTENSION	NA	1	29,250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CONCRETE																							
SIDEWALKS/CURBS/GUTTERS OTHER CONCRETE	4	1	4,700	0	5,690	0	0	0	6,110	0	0	0	6,550	0	0	0	0	0	7,400	0	0	0	
TOTAL PAVEMENTS/CONCRETE			222,510																				
RECREATION																							
TOT LOT																							
METAL AND PLASTIC EQUIPMENT	25	19	50,000	0	0	0	0	0	0	0	68,450	0	0	0	0	0	0	0	0	0	0	0	
MULCH REPLENISHMENT	2	1	1,000	1,190	0	1,230	0	1,280	0	1,320	0	1,370	0	1,420	0	1,470	0	1,520	0	1,570	0	1,630	
TENNIS COURT																							
COLOR COAT/NETS	5	1	3,200	0	0	0	0	4,090	0	0	0	0	4,460	0	0	0	0	4,860	0	0	0	0	
MAJOR COURT REPAIRS	20	10	42,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69,660	
LIGHTS/POSTS	30	18	21,600	0	0	0	0	0	0	29,060	0	0	0	0	0	0	0	0	0	0	0	0	
10' CHAIN LINK FENCE	30	18	15,120	0	0	0	0	0	0	20,340	0	0	0	0	0	0	0	0	0	0	0	0	
PARK BENCHES	30	18	1,900	0	0	0	0	0	0	2,560	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL RECREATION			134,820																				
OTHER PROPERTY FEATURES																							
ENTRANCE(S)																							
ENTRANCE FEATURE-REPOINT/SINAGE/CLEANING	5	1	2,500	2,980	0	0	0	0	3,250	0	0	0	0	3,540	0	0	0	0	3,870	0	0	0	
FLOOD LIGHTS/ELECTRIC PANEL/WIRING	20	8	2,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,000	0	
TREES/SHUBBERY																							
DISEASED/DEAD REPLACEMENT	3	1	3,000	0	0	3,700	0	0	3,900	0	0	4,110	0	0	4,330	0	0	4,560	0	0	4,810	0	
FENCING/RETAINING WALLS																							
8' SOLID BOARD FENCE	20	13	59,200	0	0	72,990	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6' SOLID BOARD FENCE	10	8	17,500	0	0	0	0	0	0	23,540	0	0	0	0	0	0	0	0	0	0	28,030	0	
6' CHAIN LINK FENCING	35	23	7,500	0	0	0	0	0	0	0	0	0	0	0	11,010	0	0	0	0	0	0	0	
WOOD RETAINING WALL-RETENTION POND	35	23	45,900	0	0	0	0	0	0	0	0	0	0	0	67,380	0	0	0	0	0	0	0	
SITE FEATURES																							
MAILBOX-STREET	25	13	28,000	0	0	34,520	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
POLE LIGHTING	30	18	33,000	0	0	0	0	0	0	44,390	0	0	0	0	0	0	0	0	0	0	0	0	
SITE ITEMS	1	1	2,500	2,980	3,030	3,080	3,140	3,190	3,250	3,310	3,360	3,420	3,480	3,540	3,610	3,670	3,730	3,800	3,870	3,930	4,000	4,070	
TOTAL OTHER PROPERTY FEATURES			201,600																				
TOTAL RESERVES			\$558,930	\$7,150	\$37,830	\$115,520	\$3,140	\$8,560	\$47,730	\$4,630	\$123,250	\$77,350	\$47,960	\$8,500	\$7,940	\$325,040	\$3,730	\$14,740	\$7,740	\$50,720	\$40,840	\$5,700	\$73,810

30-YEAR FINANCIAL PLANS

Association & PM+ Plans are Calculated Using the Cash Flow Method

FY (10)	Expenses		If Association Plan Continues			If PM+ Recommendation is Used			If Component Method is Used		
	Annual* (11)	Cumulative (12)	Interest (13)	Contr'btn (14)	Balance (15)	Interest (16)	Contr'btn (17)	Balance (18)	Interest (19)	Contr'btn (20)	Balance (21)
AOH					\$240,000			\$240,000			\$240,000
2018	70,180	70,180	6,770	37,650	214,240	6,770	32,290	208,880	6,770	31,400	207,990
2019	2,540	72,720	6,040	38,310	256,050	5,890	32,860	245,090	5,870	18,940	230,260
2020	3,630	76,350	7,220	38,980	298,620	6,910	33,440	281,810	6,490	21,310	254,430
2021	5,790	82,140	8,420	39,670	340,920	7,950	34,030	318,000	7,170	24,690	280,500
2022	34,560	116,700	9,610	40,370	356,340	8,970	34,630	327,040	7,910	30,670	284,520
2023	8,950	125,650	10,050	41,080	398,520	9,220	35,240	362,550	8,020	31,330	314,920
2024	7,220	132,870	11,240	41,800	444,340	10,220	35,860	401,410	8,880	38,790	355,370
2025	211,310	344,180	12,530	42,540	288,100	11,320	36,490	237,910	10,020	59,450	213,530
2026	4,020	348,200	8,120	43,290	335,490	6,710	37,130	277,730	6,020	38,310	253,840
2027	55,580	403,780	9,460	44,050	333,420	7,830	37,780	267,760	7,160	38,590	244,010
2028	7,150	410,930	9,400	44,830	380,500	7,550	38,440	306,600	6,880	31,150	274,890
2029	37,830	448,760	10,730	45,620	399,020	8,650	39,120	316,540	7,750	36,240	281,050
2030	115,520	564,280	11,250	46,420	341,170	8,930	39,810	249,760	7,930	59,870	233,330
2031	3,140	567,420	9,620	47,240	394,890	7,040	40,510	294,170	6,580	27,750	264,520
2032	8,560	575,980	11,140	48,070	445,540	8,300	41,220	335,130	7,460	31,820	295,240
2033	47,730	623,710	12,560	48,920	459,290	9,450	41,950	338,800	8,330	38,790	294,630
2034	4,630	628,340	12,950	49,780	517,390	9,550	42,690	386,410	8,310	52,260	350,570
2035	123,250	751,590	14,590	50,660	459,390	10,900	43,440	317,500	9,890	60,250	297,460
2036	77,350	828,940	12,950	51,550	446,540	8,950	44,200	293,300	8,390	50,970	279,470
2037	47,960	876,900	12,590	52,460	463,630	8,270	44,980	298,590	7,880	40,120	279,510
2038	8,500	885,400	13,070	53,380	521,580	8,420	45,770	344,280	7,880	58,010	336,900
2039	7,940	893,340	14,710	54,320	582,670	9,710	46,580	392,630	9,500	58,290	396,750
2040	325,040	1,218,380	16,430	55,280	329,340	11,070	47,400	126,060	11,190	93,940	176,840
2041	3,730	1,222,110	9,290	56,250	391,150	3,550	48,230	174,110	4,990	32,480	210,580
2042	14,740	1,236,850	11,030	57,240	444,680	4,910	49,080	213,360	5,940	43,320	245,100
2043	7,740	1,244,590	12,540	58,250	507,730	6,020	49,940	261,580	6,910	33,410	277,680
2044	50,720	1,295,310	14,320	59,280	530,610	7,380	50,820	269,060	7,830	36,080	270,870
2045	40,840	1,336,150	14,960	60,320	565,050	7,590	51,710	287,520	7,640	49,830	287,500
2046	5,700	1,341,850	15,930	61,380	636,660	8,110	52,620	342,550	8,110	53,210	343,120
2047	73,810	1,415,660	17,950	62,460	643,260	9,660	53,550	331,950	9,680	52,960	331,950
SUMMARY											
	30-Year Income =		347,470	1,471,450		245,800	1,261,810		233,380	1,274,230	
	30-Year Minimum Balance =				256,050			126,060			176,840
	30-Year Maximum Balance =				643,260			401,410			396,750
	50-Year Minimum Balance =				256,050			126,060			176,840
	50 Year Maximum Balance =				1,321,870			585,540			567,830



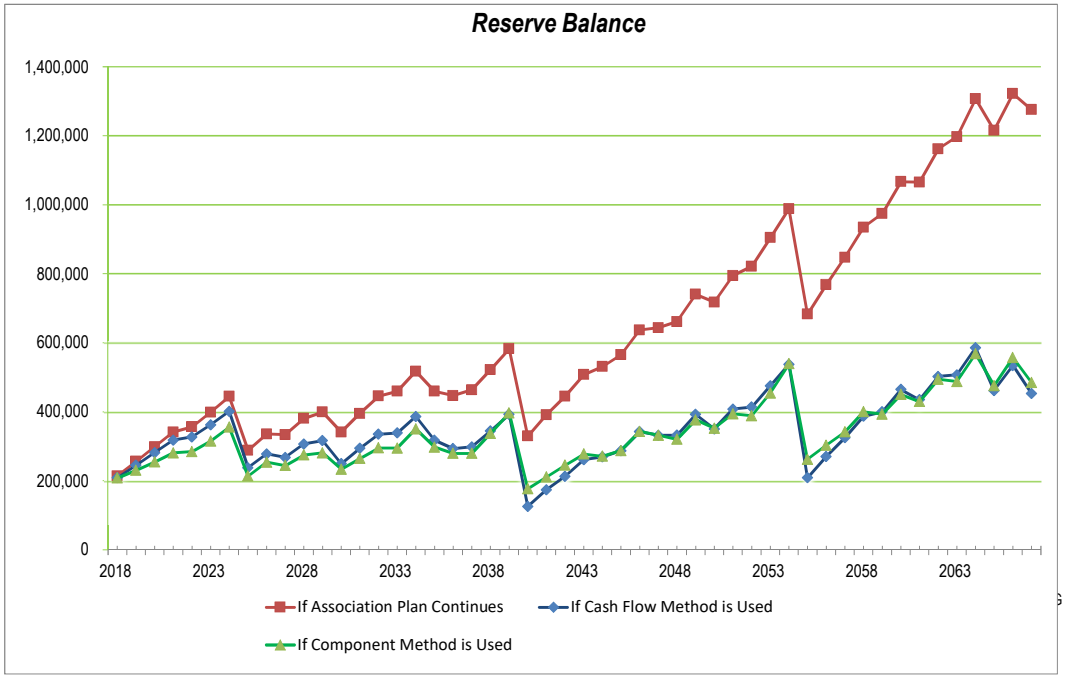
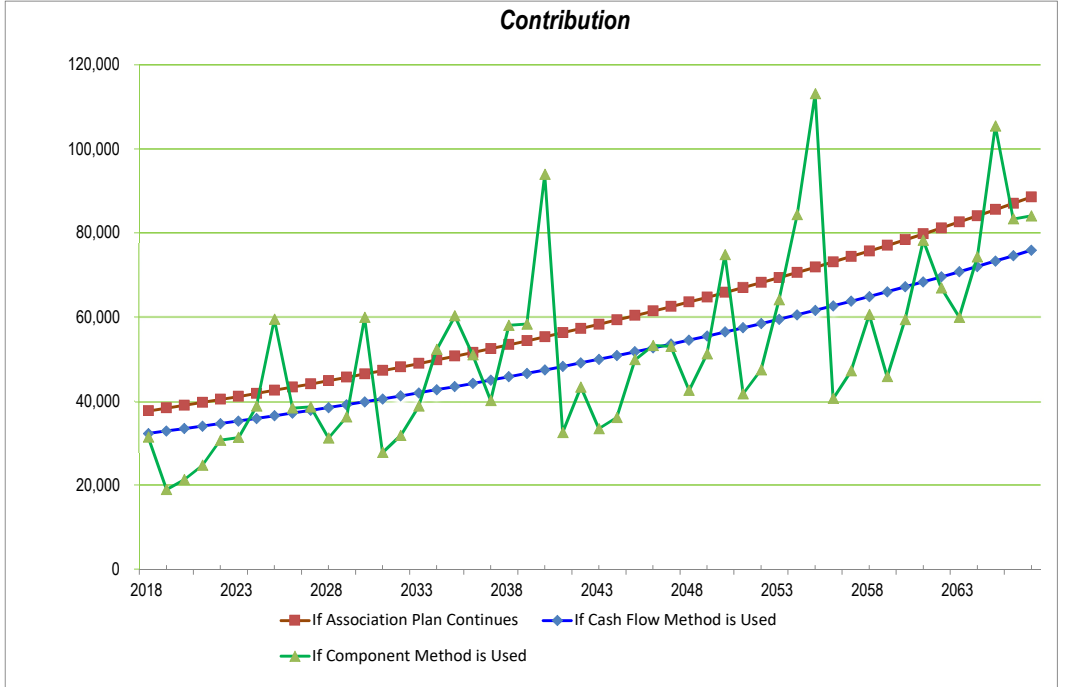
Notes:
 * An annual average cost. Expenditures can change from year-to-year depending on when actual work is done.
 Projections are based on this year - will vary as current cost, useful life, amount-on-hand, contribution and contingency change.
 Data should be considered a more accurate projection for years 1 - 5 than the out-years.
 Minimum balance does not include the first year.
 If Component method is chosen expect column (20) amounts to vary significantly from one year to the next.

Association & PM+ Plans are Calculated Using the Cash Flow Method

Table with 12 columns: FY (10), Expenses (11, 12), If Association Plan Continues (13, 14, 15), If Cash Flow Method is Used (16, 17, 18), and If Component Method is Used (19, 20, 21). Rows include AOH and years 2018-2067.

SUMMARY table with 3 rows: 50-Year Income = 17,560 59,590 9,610 51,090 9,360 51,980; 50-Year Minimum Balance = 256,050 126,060 585,540; 50 Year Maximum Balance = 1,321,870 567,830.

Notes: Same as 30-Year Comparison

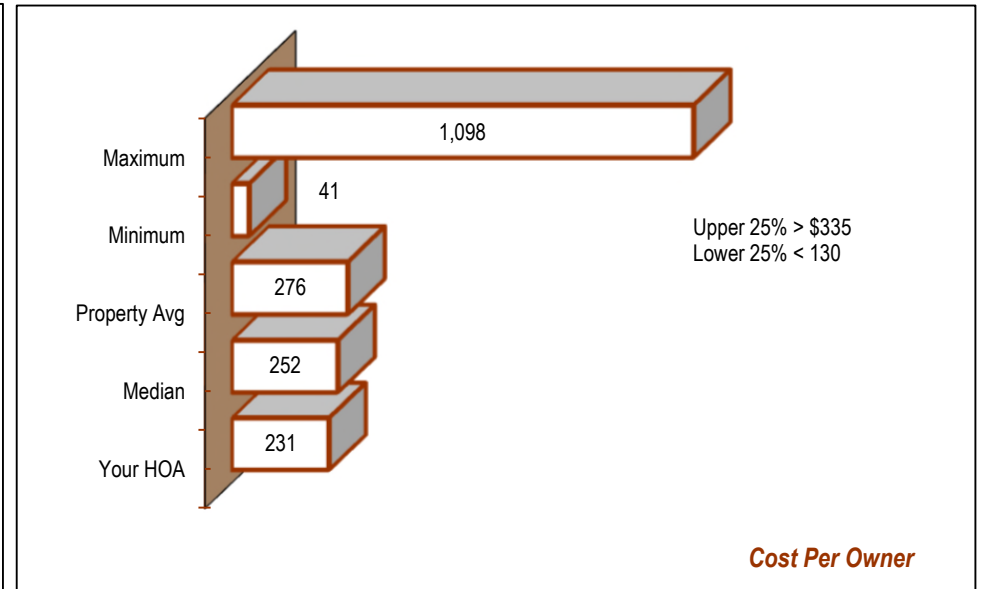
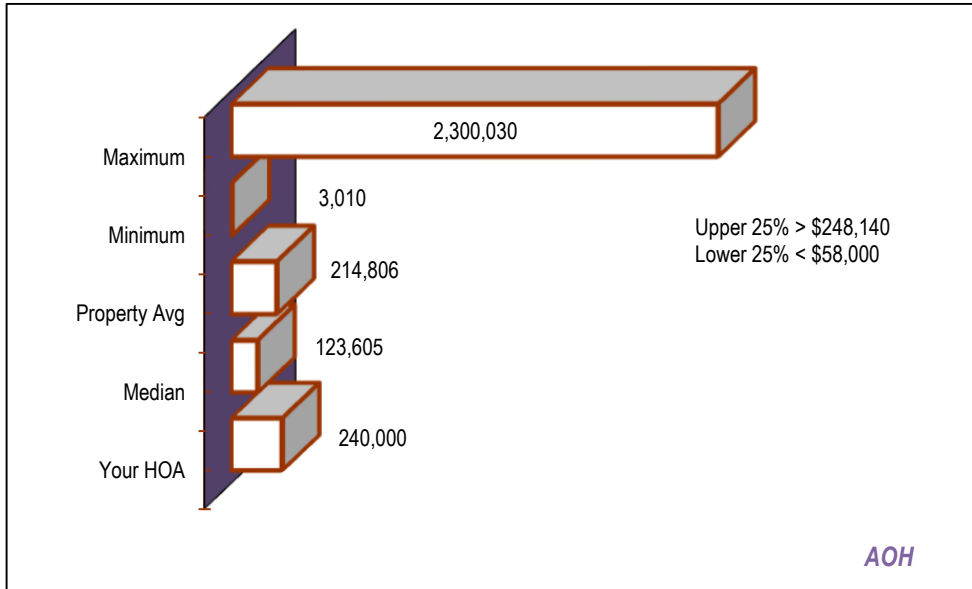
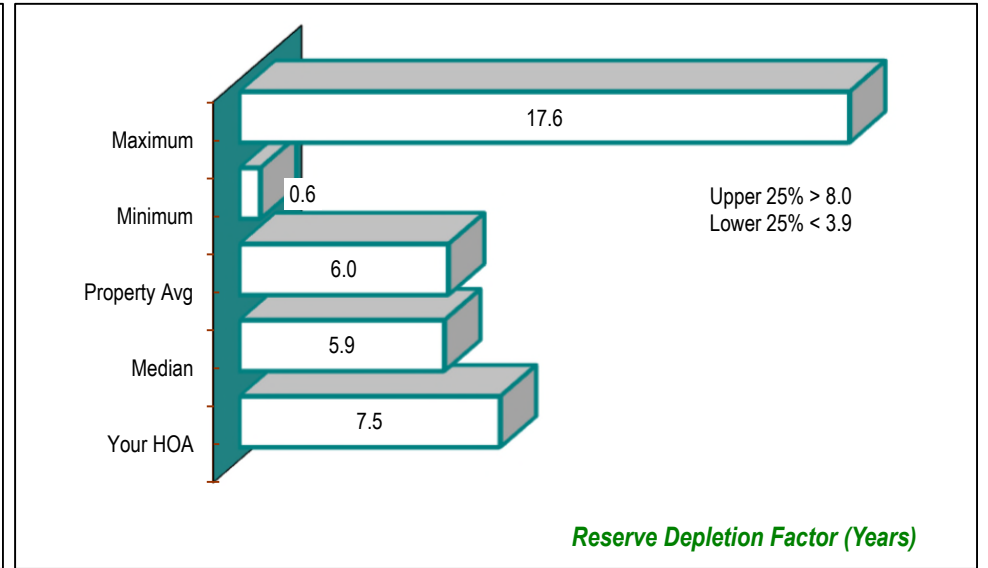
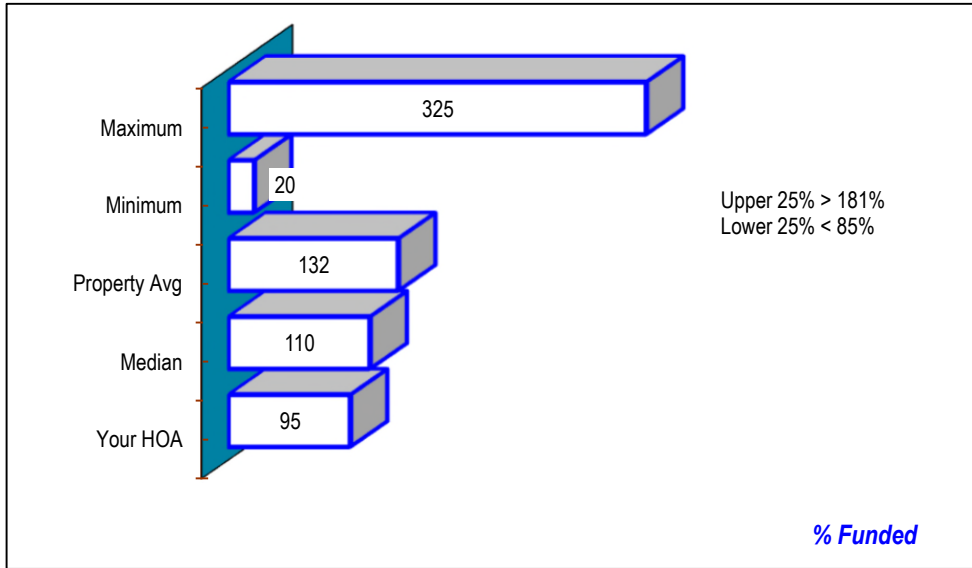


COMPARISON TO OTHER PROPERTIES

Sample Size = 100 HOA's/POA's

0-Your HOA-FY18

Level I Full Reserve Study



Legend:
 This comparison only compares the first study year to other properties.
 % Funded -- Used-up life divided by Useful Life times Current Cost.
 Reserve Depletion Factor -- Number of years the amount-on-hand will fund if no more is contributed to the reserves.
 AOH - Reserve funds available at start of fiscal year.
 Cost Per Owner - The average cost per owner to meet the reserve requirement compared to other properties.

Attention is directed to columns (1) COMPONENT, (3) AVG and (4) REM USEFUL LIFE, and (5) ESTIMATED COST IN CURRENT DOLLARS on Page A1. These entries, along with reserve savings at the start of the fiscal year and contingency built into the funding plan, determine the annual contribution needed to support the reserves. The remaining useful life approximates the time period when funding should be available for repair/replacement work. Good maintenance and repair practices prior to replacement can extend component useful life; conversely, poor or no maintenance/repair will shorten life and result in more cost to the association. Following comments are provided for components that may need further explanation.

PAVEMENTS/CONCRETE

PAVEMENTS

There are three considerations that apply to asphalt pavements: 1) Have a preventive maintenance program - preventive maintenance consist of sealing open cracks (equal to or greater than 1/8"), repair wearing surface/base/sub-base areas that have failed (distinguished by "alligator" or "chicken wire" cracking), apply a seal coat to the entire surface and repaint traffic markings. An additional benefit of sealcoating and traffic markings is the pavement will look uniform and that enhances property appearance. Funding for this work is identified as "Preventive Maintenance" and/or "Immediate Repairs for Life Extension." Although we allow for preventive maintenance to be done every four years, if cracks open or asphalt failures occur sooner they should be repaired as needed. Contingency built into the funding plan should be more than adequate to fund this work, 2) Be prepared to repave all asphalt around the time period shown in the table. When repaving there are two possible courses of action, a) mill only near gutter pans to preserve proper drainage and place back 1-1/2" (or more) of compacted asphalt throughout, and b) total milling of all asphalt and repave to thickness removed. Notes: a) Asphalt is an oil based product - price varies with the cost of a barrel of oil, and b) When pavements are shared with adjacent properties quantity shown is one-half the shared amount. 3) Although we allow for 100% of the asphalt to be repaved our experience supports a smaller percentage of the base/sub-base will need repairs prior to overlaying.

CONCRETE

Repairs as needed to keep components in good repair. Work should be done concurrently with pavement work; pricing should be better because contractor is on site.

RECREATION

TOT LOT

Tot-lot cost can vary depending on features desired - we use average costs for features and size. Always replace with equipment that "helps children develop physical coordination, strength, and flexibility as well as providing recreation and enjoyment (Wikipedia)."

OTHER PROPERTY FEATURES

ENTRANCE(S)

Provides for masonry repairs/repointing, name restoration, cleaning, flood lights, electric panels, wiring and other work needed to keep entrance features in good condition.

6' CHAIN LINK FENCING

Fence useful life can be extended by painting to control rust, stretching fabric, straightening posts and adding tie wires to hold the fabric tight.

SITE ITEMS

Repairs/replacements to signs, sign posts, irrigation systems, low height wood retaining walls, storm drainage, trash receptacles, dog stations and other miscellaneous items.

EXCLUSIONS

**PRESSURE WASHING/PAINTING/STAINING
CATASTROPHES**

Not included in the reserves. Maintenance work, properly funded from the operating account. Are not predictable events - no reserve allowance. If one occurs funding from other sources may be needed if the contingency built into the reserves is insufficient to cover expenses.

DRY WATER RETENTION POND

Grounds maintenance is an operating expense. Funding that may be needed for spill way repairs is provided for in the Site Items entry.