

## RESERVE STUDY ANALYSIS



## INFORMATION & SAMPLE PACKET

2022



## Our Company

**ASSET GUARDIANS** is a St. Louis, MO based reserve study company serving Missouri, Kansas, Illinois, and the throughout the Midwest. We develop reserve studies to accurately document, anticipate, and manage long term financial expenses for the community owned property of homeowner and condominium associations. With more than 20 years of experience with property and construction management in residential, town home, and condominium associations, we offer and deliver a thorough assessment of your community's condition. Our services provide a complete, detailed financial analysis of your property and amenity assets. We start with a community inspection, review maintenance and repair history, and prepare a condition report with financial conclusions that help forecast your community's reserve needs. Our solution, constructed from proven study methodology, will help verify your community's improvement needs and advise you on issues that can impact the budget and cause a loss of financial resources. Using proven software tools that calculate your short and long-term funding requirements, we are equipped to deliver both physical and financial reporting for your community. With our commitment to excellence and service, we provide solutions you need today and in the future.

### AVAILABLE SERVICES

- Mini Reserve Study Reports
- Full Reserve Studies with site visit and funding report
- Data update and annual review reports
- Construction Administration Services
- Property Condition Assessments
- Lender Compliance Reports
- Presentation to Board Members
- Presentations to annual membership meetings
- Presentations to special meetings
- Critical issue and special studies



## Our Service

### ABOUT RESERVE STUDIES

The objective of a Reserve Study is to set the minimum level of annual reserve contributions made by a community association. This generally insures that adequate funds exist for the replacement or major repair of any component of the property as it becomes necessary. Depending on the Board of Directors wishes, a study can be either extremely exhaustive or restricted to only the major building components. In either case, each item included must be evaluated to determine the current condition, the remaining useful life and the replacement cost. This information is synthesized into a spreadsheet format which determines the contribution needed. All costs and balances are shown both in constant dollars and adjusted for annual inflation and interest earned (rate assumptions are clearly shown). Ideally, an even level of contribution is established that maintains a positive balance in the account.

In order to build a study that is the greatest value to the Association, **Asset Guardians** employs a "Reasonable Approach" when evaluating a property. This means that we attempt to predict (based on the economics and the Association's objectives) what a reasonable person will decide to have done when the corrective action becomes necessary. For example, a reasonable person does not have an entirely new fence installed when repairing and restoring the old one would have produced the same result. The benefit of this is that reserve contributions are minimized to allow for what is most likely to occur. Our studies are not based on a worst case scenario. It should be noted that our approach assumes that the Association will correct minor problems as they occur—before they become major problems.

The benefits of a **consistent annual contribution to Reserves** as determined by a Reserve Study are many:

- **IT IS FAIR.** Owners contribute only for the useful life extracted during their term of ownership. Current owners are not assessed for what previous owners did not pay.
- **PROTECTS THE OWNER'S INVESTMENT.** By insuring that funds always exist to keep a community maintained and functional, each owner's investment in their unit is protected.
- **INCREASES SALABILITY/LEND ABILITY.** Savvy purchasers and lenders are closely examining association finances before making commitments. A good reserve study and adequate reserves illustrate an Association's financial health and endurance.
- **REDUCES SPECIAL ASSESSMENTS.** By utilizing a reserve study to aid in medium and long-range planning, the need for special assessments is greatly reduced. This assists personal financial planning and reduces the uncertainty and fear of ownership.
- **IDENTIFIES PROBLEM AREAS.** By highlighting items that need immediate attention or routine maintenance, useful lives are extended and costs are minimized. An ounce of prevention is worth a pound of cure.

# ABOUT RESERVE STUDIES



In order to provide the best reserve analysis possible, many sources are used in compiling our report. These include:

- Site visit and inspection of facilities
- Conference with on-site management and maintenance personnel
- Review of building blueprints and community indentures
- Generally accepted construction, maintenance, and repair guidelines
- Conversations with vendors employed by the Association

It is important to note that the long-term nature of this study requires that certain assumptions and predictions be made about future events. Since there can be no guarantees that these future events will actually occur as assumed, it is important that this analysis be viewed in light of the circumstances under which it is conducted. Every reasonable effort is made to insure that the conclusions of this report are based on reliable information and sound reasoning.

This report should be updated annually with actual repair costs, Reserve balances, etc. Every two or four years it should be updated with a physical inspection and professional review. Regular updating will allow changes based on actual occurrences and adjustments for the cost of repairs to be incorporated into the annual reserve contributions. This will allow any savings or additional costs to be properly allocated among unit owners.

## SIX THINGS YOU SHOULD KNOW BEFORE YOU CONDUCT A RESERVE STUDY

One of the primary business duties of Community Associations is maintaining and preserving property values of the Association's common property. To do this properly, Associations must develop funding plans for future repair or replacement of major common-area components. A Reserve Study is a budget-planning tool that identifies the current status of the Reserve fund and establishes a stable and equitable funding plan to offset the anticipated future major common-area expenditures. The Reserve Study consists of two parts: the physical analysis and the financial analysis.

There are many benefits to having a Reserve Study done. First, it meets legal, fiduciary and professional requirements. It provides for the planned replacement of major items that must, at some point in time, be replaced, as major items deteriorate during use. It minimizes the need for special assessments. And lastly, a replacement fund enhances resale values. Following are things to keep in mind when planning your Reserve Study.

1. **ALL RESERVE STUDIES ARE NOT EQUAL.** Until just a few years ago, most Reserve Studies included a list of all the components, their replacement cost and remaining useful life in order to determine what the next year's funding should be. After many years of discussion and development by the Reserves Committee of the Community Associations Institute, it was agreed by the leading



Providers from across the United States that all Reserve Studies should include not only this "Physical Analysis" but also a comprehensive "Financial Analysis." This is now the standard. The Physical Analysis is important because it determines the existing condition of the common elements. The Financial Analysis, which includes a cash flow projection of the Reserve Fund over a 20 to 30 year period, is even more important because it focuses on the planning and budgeting of replacing these common elements based on the specific needs of the Association. A Financial Analysis enables the Association to consider long-term planning decisions, rather than focusing only on the next year's replacement items. By considering this projection, the Association is better able to make an informed decision in regards to how much money should be set aside each year into the Reserve Fund and still feel comfortable that a special assessment will not be required over the life of the projection.

2. **FULL FUNDING OF A RESERVE STUDY** may mean that you are over-funded. Based upon the National Reserve Study Standards of the Community Associations Institute, there are a number of different "Funding Goals" which are recommended to be utilized as the basis for your Association's future Reserve Fund planning. "Baseline Funding" is when the cash flow projection reaches \$0 at some time over the projection period. "Component Full Funding" is based on keeping every individual component within the study 100% funded. In most instances, this will result in a significant amount of funds, which are never used during the cash flow projection period. "Threshold Funding" is when the amount in the Fund during the cash flow projection period is based upon keeping a minimum balance within the fund. This is generally more than "Baseline Funding" and less than "Full Funding." "Statutory Funding" is based upon the establishment of the amount to be funded as dictated by the local State requirements. At **Asset Guardians**, we work with the client to establish the funding goals ahead of time then concentrate on strategies to achieve that objective.
3. **THE REPLACEMENT COSTS INCLUDED WITHIN A RESERVE STUDY** should not always be based upon a replacement with the exact same component. In many instances, the original component being replaced either is no longer available or has become outdated since it was first installed. By making recommendations for alternatives to the initial installation, the Association may be able to install a replacement with a significantly longer life such as a new type of roofing system or something which is much more energy efficient such as a new HVAC system. In both cases, this will result in either a reduction in the recommended contributions to the Reserve Fund or a reduction in the client's energy costs. At **Asset Guardians**, all Reserve Studies are prepared under the direction of experienced professionals who are experts not only in estimated life valuations and cost estimating, but also in design. **Asset Guardians** also provides alternative recommendations and the required design services when the replacements become necessary.
4. **THE RESERVE STUDY CAN BE USED FOR MUCH MORE** than just estimating the Association's contributions to the Reserve Fund. The Reserve Study cash flow analysis can also be used as a tool for determining how the Association's Reserve Funds can be invested. They give the Association the ability to plan for the actual replacements, thereby making it easier to negotiate more effectively

# ABOUT RESERVE STUDIES



with contractors. The cash flow analysis will show how much money will be in the Reserve Fund and over what period of time. By reviewing this information with the Association's investment adviser, an investment plan can be established to maximize the return on these funds based upon when they will be needed. In addition, by reviewing the anticipated replacements in the coming year on a regular basis, the Association can plan to have the required work performed before the actual conditions deteriorate to the point that remedial work will be required as part of the replacement, which can cause a significant increase in the actual cost of doing the work. A common example of this occurs with pavement seal coating and overlays. If the application of the seal coating is not performed on the recommended schedule, even if the pavement looks good, it can result in additional deterioration of the pavement which must be corrected prior to the application of the overlay. This can simultaneously reduce the anticipated time period before the overlay is needed and also increase the cost of the work when it is done. At **Asset Guardians**, our expertise in both the analysis of existing conditions and the ability to answer technical questions specifically related to the conditions at your site can help prevent this from occurring.

5. **THE RESERVE STUDY WILL NOT BE THE ONLY FUNDING** the Association will need for the upkeep of the common elements. The Reserve Study is only for the major repair or replacement of the common and limited common elements that are the Association's responsibility. In all cases, the cost of ongoing maintenance should also be budgeted for separately, as this is not included within the Reserve Study. If the proper maintenance is not performed, it can result in a significant loss of useful life for the Reserve components. This will result in their replacement occurring sooner than anticipated when adequate funds have not yet been accumulated. At **Asset Guardians**, we can also provide the Association with a recommended maintenance schedule and budget to help prevent this situation from occurring.
6. **THE RESERVE STUDY IS A BUDGETING TOOL** and the actual cost of performing the replacement work when it occurs will generally vary from the costs included within the Study. In preparing the Reserve Study, the replacement costs used are based upon both estimating standards as well as the actual cost of similar projects that have been performed. The replacement costs are typically based upon current dollars and are not based upon the preparation of specifications and bidding of the work to actual contractors. It is intended to be used as a budget-planning tool. In order to keep the replacement costs as well as the anticipated useful lives current, the Reserve Study should be updated (including a site visit) on a regular basis. At **Asset Guardians**, our expertise in the preparation of Reserve Studies and the implications of the different funding plans allows us to make recommendation on how often the Study should be updated and what may happen if it is not. All Studies include a comprehensive section outlining these recommendations.



*The following pages contain sample data and graphics from real Reserve Studies we have prepared.*

# SAMPLE PAGES FROM A RESERVE STUDY



Reserve Items	Unit Cost	No Units	Current Cost When New	Estimated Remaining Life	Expected Life When New	Calendar Year	Estimated Future Cost	Raw Annual Payment
<b>Unit Exterior</b>								
Gutters & Downspouts - 300 lf bldg avg	\$ 5.00 / lf	9300 lf	\$ 46,500	21 Years	25 Years	2037	\$ 72,174	\$ 3,262.71
Veneer Brick - Tuckpoint Maintenance	\$ 1,000 ea	62	\$ 62,000	15 Years	15 Years	2031	\$ 85,359	\$ 5,313.75
<b>Roofing, Group 1 - Asphalt Comp.</b>								
Architectural - 25 yr. 6500 sf bldg avg	\$ 3.50 / sf	39000 sf	\$ 136,500	18 Years	25 Years	2032	\$ 191,721	\$ 11,230.08
Siding - Vinyl, 3000 sf bldg avg	\$ 4.00 / sf	93000 sf	\$ 372,000	35 Years	50 Years	2051	\$ 763,791	\$ 21,026.49
Handrail - Vinyl, 4ft tall	\$ 600 ea	17	\$ 10,200	20 Years	30 Years	2036	\$ 15,519	\$ 735.12
Columns - Aluminum	\$ 250 ea	95	\$ 23,750	25 Years	30 Years	2041	\$ 39,931	\$ 1,525.87
Shutters - Vinyl, per pair	\$ 150 ea	97	\$ 14,550	20 Years	30 Years	2036	\$ 22,137	\$ 1,048.63
Signage - Address Plaques	\$ 100 ea	62	\$ 6,200	20 Years	20 Years	2036	\$ 9,433	\$ 446.84
<b>Roofing, Group 2 - Asphalt Comp.</b>								
Architectural - 25 yr. 6500 sf bldg avg	\$ 3.50 / sf	162500 sf	\$ 568,750	21 Years	25 Years	2037	\$ 882,779	\$ 39,906.86
Decking - Structural Repairs	\$ 500 ea	62	\$ 31,000	15 Years	30 Years	2031	\$ 42,680	\$ 2,656.87
<b>Common Elements - Exterior</b>								
Paving Crackfill	\$ 5,000 ea	1	\$ 5,000	5 Years	5 Years	2021	\$ 5,637	\$ 938.10
						2026	\$ 6,229	\$ 1,244.32
						2031	\$ 6,884	\$ 1,375.07
						2036	\$ 7,607	\$ 1,519.56
						2041	\$ 8,406	\$ 1,679.23
						2046	\$ 9,290	\$ 1,855.69
Concrete Drives	\$ 6.50 / sf	55800 sf	\$ 362,700	18 Years	30 Years	2034	\$ 530,203	\$ 27,773.66

# SAMPLE PAGES FROM A RESERVE STUDY



Calendar Year	Annual Dues	Annual Interest	Annual Expenses	Annual Income Tax	Net Reserve Funds	% Funded	Fully Funded Balance
2016	\$ 48,360	\$ 57		\$ 9	\$ 140,033	24.8%	\$ 564,801
2017	\$ 53,196	\$ 82	\$ 2,602	\$ 12	\$ 190,697	29.6%	\$ 643,842
2018	\$ 58,516	\$ 109	\$ 2,654	\$ 16	\$ 246,651	34.0%	\$ 724,516
2019	\$ 64,367	\$ 138	\$ 2,708	\$ 21	\$ 308,427	38.2%	\$ 808,185
2020	\$ 70,804	\$ 170	\$ 2,763	\$ 26	\$ 376,613	42.1%	\$ 894,936
2021	\$ 77,884	\$ 206	\$ 18,066	\$ 31	\$ 436,807	44.3%	\$ 984,860
2022	\$ 85,673	\$ 238	\$ 2,875	\$ 36	\$ 519,606	48.9%	\$ 1,062,845
2023	\$ 94,240	\$ 281	\$ 2,933	\$ 42	\$ 611,152	52.7%	\$ 1,150,446
2024	\$ 103,664	\$ 329	\$ 2,993	\$ 49	\$ 712,103	56.5%	\$ 1,259,514
2025	\$ 114,030	\$ 382	\$ 3,053	\$ 57	\$ 823,405	60.4%	\$ 1,363,149
2026	\$ 119,732	\$ 439	\$ 19,217	\$ 66	\$ 924,294	62.9%	\$ 1,470,454
2027	\$ 125,718	\$ 491	\$ 3,177	\$ 74	\$ 1,047,251	66.9%	\$ 1,585,156
2028	\$ 132,004	\$ 554	\$ 3,242	\$ 83	\$ 1,176,485	70.0%	\$ 1,679,841
2029	\$ 138,605	\$ 620	\$ 3,307	\$ 93	\$ 1,312,309	73.0%	\$ 1,798,518
2030	\$ 145,535	\$ 690	\$ 3,374	\$ 103	\$ 1,455,057	75.7%	\$ 1,921,301
2031	\$ 145,535	\$ 761	\$ 143,218	\$ 114	\$ 1,458,021	71.2%	\$ 2,048,308
2032	\$ 145,535	\$ 762	\$ 195,232	\$ 114	\$ 1,408,972	69.2%	\$ 2,037,473
2033	\$ 145,535	\$ 738	\$ 114,417	\$ 111	\$ 1,440,717	73.2%	\$ 1,967,727
2034	\$ 145,535	\$ 754	\$ 533,857	\$ 113	\$ 1,053,035	53.3%	\$ 1,977,154
2035	\$ 145,535	\$ 580	\$ 33,555	\$ 84	\$ 1,165,491	75.5%	\$ 1,543,162
2036	\$ 145,535	\$ 616	\$ 206,496	\$ 92	\$ 1,105,054	68.5%	\$ 1,612,285
2037	\$ 145,535	\$ 586	\$ 958,834	\$ 88	\$ 292,253	19.4%	\$ 1,502,606
2038	\$ 145,535	\$ 179	\$ 3,959	\$ 27	\$ 433,982	73.6%	\$ 590,048
2039	\$ 145,535	\$ 250	\$ 4,039	\$ 38	\$ 575,691	90.8%	\$ 633,931
2040	\$ 145,535	\$ 321	\$ 4,120	\$ 48	\$ 717,379	105.6%	\$ 679,345
2041	\$ 145,535	\$ 392	\$ 104,703	\$ 59	\$ 758,544	104.4%	\$ 726,334
2042	\$ 145,535	\$ 413	\$ 4,288	\$ 62	\$ 800,142	134.4%	\$ 669,579
2043	\$ 145,535	\$ 483	\$ 4,375	\$ 73	\$ 1,041,713	145.7%	\$ 714,835
2044	\$ 145,535	\$ 554	\$ 4,463	\$ 83	\$ 1,183,256	155.4%	\$ 761,645
2045	\$ 145,535	\$ 625	\$ 4,553	\$ 94	\$ 1,324,770	163.5%	\$ 810,053
2046	\$ 145,535	\$ 696	\$ 143,853	\$ 104	\$ 1,327,043	154.3%	\$ 860,105
<b>Totals :</b>	<b>\$ 3,760,888</b>	<b>\$ 13,478</b>	<b>\$ 2,536,926</b>	<b>\$ 2,022</b>			

The cash distribution shown in this table applies to repair and replacement cash reserves only.

#### Basis of Funding Study - Modified Cash Flow

Cash reserves have been set to a minimum of \$ 0

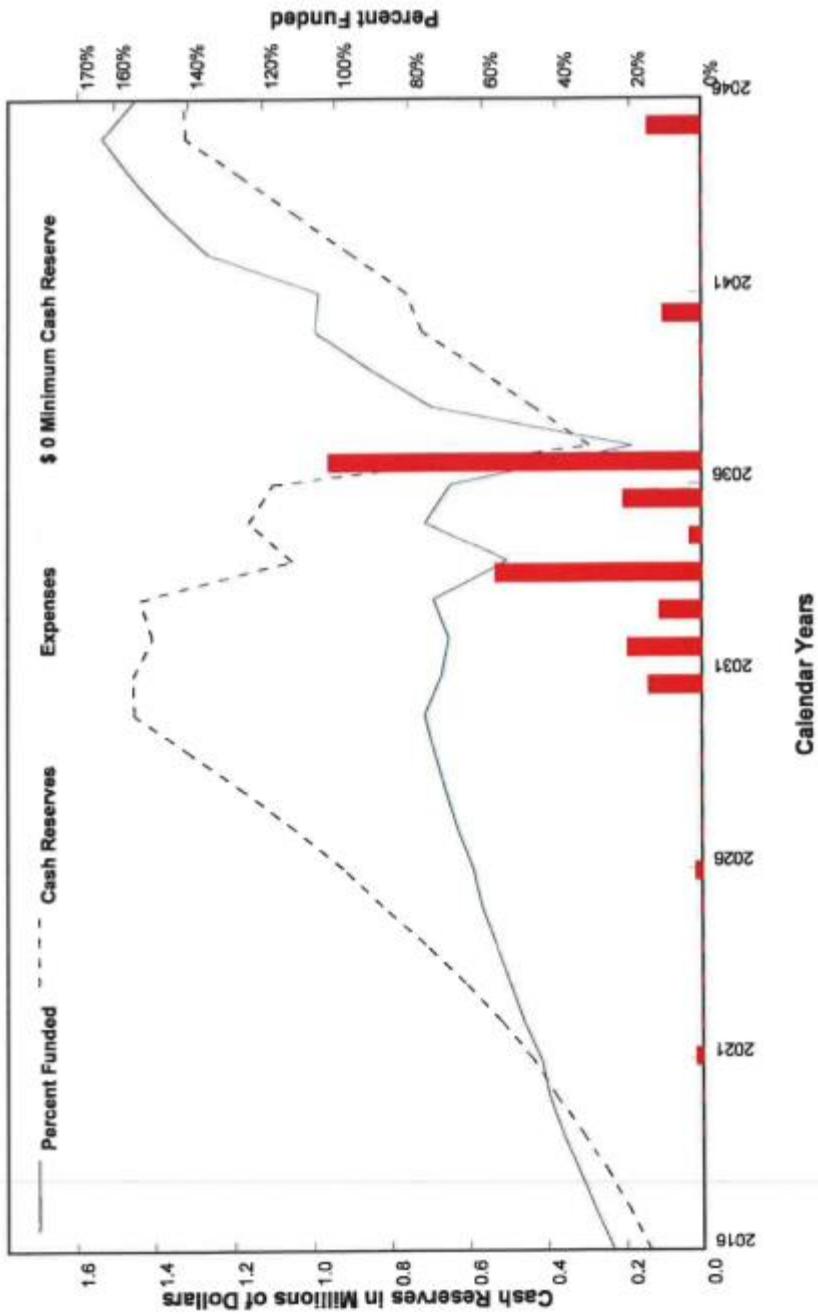
Cash Flow has been modified with the forced Fixed Payments.

Months Remaining in Calendar Year 2016: 12      Inflation = 2.00 %      Interest = 0.05 %

# SAMPLE PAGES FROM A RESERVE STUDY



Prepared by Asset Guardians  
Funding Study Cash Flow by Calendar Year - Continued



# SAMPLE PAGES FROM A RESERVE STUDY



Calendar Year	Member Monthly Operations Payment	Member Monthly Reserve Payment	Member Total Monthly Payment	Member Total Annual Payment	Monthly Reserve Payment	Annual Reserve Payment
2016	\$ 185.00	\$ 65.00	\$ 250.00	\$ 3,000.00	\$ 4,030	\$ 48,360
2017	\$ 188.70	\$ 71.50	\$ 260.20	\$ 3,122.40	\$ 4,433	\$ 53,196
2018	\$ 192.47	\$ 78.65	\$ 271.12	\$ 3,253.48	\$ 4,876	\$ 58,516
2019	\$ 196.32	\$ 86.52	\$ 282.84	\$ 3,394.06	\$ 5,364	\$ 64,367
2020	\$ 200.25	\$ 95.17	\$ 295.42	\$ 3,544.99	\$ 5,900	\$ 70,804
2021	\$ 204.25	\$ 104.68	\$ 308.94	\$ 3,707.25	\$ 6,490	\$ 77,884
2022	\$ 208.34	\$ 115.15	\$ 323.49	\$ 3,881.89	\$ 7,139	\$ 85,673
2023	\$ 212.51	\$ 126.67	\$ 339.17	\$ 4,070.08	\$ 7,853	\$ 94,240
2024	\$ 216.78	\$ 139.33	\$ 356.09	\$ 4,273.08	\$ 8,639	\$ 103,664
2025	\$ 221.09	\$ 153.27	\$ 374.36	\$ 4,492.30	\$ 9,503	\$ 114,030
2026	\$ 225.51	\$ 160.93	\$ 386.44	\$ 4,637.33	\$ 9,978	\$ 119,732
2027	\$ 230.02	\$ 168.98	\$ 399.00	\$ 4,788.00	\$ 10,477	\$ 125,718
2028	\$ 234.62	\$ 177.42	\$ 412.05	\$ 4,944.59	\$ 11,000	\$ 132,004
2029	\$ 239.32	\$ 186.30	\$ 425.61	\$ 5,107.37	\$ 11,550	\$ 138,605
2030	\$ 244.10	\$ 195.61	\$ 439.71	\$ 5,276.58	\$ 12,128	\$ 145,535
2031	\$ 248.99	\$ 195.61	\$ 444.60	\$ 5,335.16	\$ 12,128	\$ 145,535
2032	\$ 253.97	\$ 195.61	\$ 449.58	\$ 5,394.92	\$ 12,128	\$ 145,535
2033	\$ 259.04	\$ 195.61	\$ 454.66	\$ 5,455.87	\$ 12,128	\$ 145,535
2034	\$ 264.23	\$ 195.61	\$ 459.84	\$ 5,518.04	\$ 12,128	\$ 145,535
2035	\$ 269.51	\$ 195.61	\$ 465.12	\$ 5,581.46	\$ 12,128	\$ 145,535
2036	\$ 274.90	\$ 195.61	\$ 470.51	\$ 5,646.14	\$ 12,128	\$ 145,535
2037	\$ 280.40	\$ 195.61	\$ 476.01	\$ 5,712.11	\$ 12,128	\$ 145,535
2038	\$ 286.01	\$ 195.61	\$ 481.62	\$ 5,779.41	\$ 12,128	\$ 145,535
2039	\$ 291.73	\$ 195.61	\$ 487.34	\$ 5,848.05	\$ 12,128	\$ 145,535
2040	\$ 297.56	\$ 195.61	\$ 493.17	\$ 5,918.06	\$ 12,128	\$ 145,535
2041	\$ 303.51	\$ 195.61	\$ 499.12	\$ 5,989.48	\$ 12,128	\$ 145,535
2042	\$ 309.58	\$ 195.61	\$ 505.19	\$ 6,062.32	\$ 12,128	\$ 145,535
2043	\$ 315.77	\$ 195.61	\$ 511.39	\$ 6,136.62	\$ 12,128	\$ 145,535
2044	\$ 322.09	\$ 195.61	\$ 517.70	\$ 6,212.41	\$ 12,128	\$ 145,535
2045	\$ 328.53	\$ 195.61	\$ 524.14	\$ 6,289.71	\$ 12,128	\$ 145,535
2046	\$ 335.10	\$ 195.61	\$ 530.71	\$ 6,368.56	\$ 12,128	\$ 145,535

Dues Summary has been modified with forced Fixed Payments.

In the context of the Reserve Payment Summary, the "Annual Reserve Payment" corresponds with the "Annual Revenue" in the Cash Flow report.

Operations Payments include an annual inflation factor of 2.00%

Number of Payment Months in Calendar Year 2016: 12

Number of Years of Constant Payments: 1

No of Dues Paying Members: 62