Reserve Analysis Report

Sample Condominium
Boston, Massachusetts
Version 1
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Sample Condominium

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Preface

This preface is intended to provide an introduction to the enclosed reserve analysis as well as detailed information regarding the reserve analysis report format, reserve fund goals/objectives and calculation methods. The following sections are included in this preface:

♦ ♦ ♦ ♦ INTRODUCTION TO RESERVE BUDGETING ♦ ♦ ♦ ♦

The Board of Directors of an association has a legal and fiduciary duty to maintain the community in a good state of repair. Individual unit property values are significantly impacted by the level of maintenance and upkeep provided by the association as well as the amount of the regular assessment charged to each owner.

A prudent plan must be implemented to address the issues of long-range maintenance, repair and replacement of the common areas. Additionally, the plan should recognize that the value of each unit is affected by the amount of the regular assessment charged to each unit.

There is a fine line between “not enough,” “just right” and “too much.” Each member of an association should contribute to the reserve fund for their proportionate amount of “depreciation” (or “use”) of the reserve components. Through time, if each owner contributes their “fair share” into the reserve fund for the depreciation of the reserve components, then the possibility of large increases in regular assessments or special assessments will be minimized.

An accurate reserve analysis and a “healthy” reserve fund are essential to protect and maintain the association's common areas and the property values of the individual unit owners. A comprehensive reserve analysis is one of the most significant elements of any association's long-range plan and provides the critical link between sound business judgment and good fiscal planning. The reserve analysis provides a “financial blueprint” for the future of an association.

♦ ♦ ♦ ♦ UNDERSTANDING THE RESERVE ANALYSIS ♦ ♦ ♦ ♦

In order for the reserve analysis to be useful, it must be understandable by a variety of individuals. Board members (from seasoned, experienced Board members to new Board members), property managers, accountants, attorneys and even homeowners may ultimately review the reserve analysis. The reserve analysis must be detailed enough to provide a comprehensive analysis, yet simple enough to enable less experienced individuals to understand the results.

There are four key bits of information that a comprehensive reserve analysis should provide: Budget, Percent Funded, Projections and Inventory. This information is described as follows:

Budget
Amount recommended to be transferred into the reserve account for the fiscal year for which the reserve analysis was prepared. In some cases, the reserve analysis may present two or more funding plans based on different goals/objectives. The Board should have a clear understanding of the differences among these funding goals/objectives prior to implementing one of them in the annual budget.

Percent Funded
Measure of the reserve fund “health” (expressed as a percentage) as of the beginning of the fiscal year for which the

reserve analysis was prepared. This figure is the ratio of the actual reserve fund on hand to the fully funded balance. A reserve fund that is "100% funded" means the association has accumulated the proportionately correct amount of money, to date, for the reserve components it maintains.

Projections
Indicate the "level of service" the association will provide the membership as well as a "road map" for the fiscal future of the association. The projections define the timetables for repairs and replacements, such as when the buildings will be painted or when the asphalt will be seal coated. The projections also show the financial plan for the association – when an underfunded association will "catch up" or how a properly funded association will remain fiscally "healthy."

Inventory
Complete listing of the reserve components. Key bits of information are available for each reserve component, including placed-in-service date, useful life, remaining life, replacement year, quantity, current cost of replacement, future cost of replacement and analyst's comments.

♦ ♦ ♦ ♦ RESERVE FUNDING GOALS / OBJECTIVES ♦ ♦ ♦ ♦

There are four reserve funding goals/objectives which may be used to develop a reserve funding plan that corresponds with the risk tolerance of the association: Full Funding, Baseline Funding, Threshold Funding and Statutory Funding. These goals/objectives are described as follows:

Full Funding
Describes the goal/objective to have reserves on hand equivalent to the value of the deterioration of each reserve component. The objective of this funding goal is to achieve and/or maintain a 100% percent funded reserve fund. The component calculation method or cash flow calculation method is typically used to develop a full funding plan.

Baseline Funding
Describes the goal/objective to have sufficient reserves on hand to never completely run out of money. The objective of this funding goal is to simply pay for all reserve expenses as they come due without regard to the association's percent funded. The cash flow calculation method is typically used to develop a baseline funding plan.

Threshold Funding
Describes the goal/objective other than the 100% level (full funding) or just staying cash-positive (baseline funding). This threshold goal/objective may be a specific percent funded target or a cash balance target. Threshold funding is often a value chosen between full funding and baseline funding. The cash flow calculation method is typically used to develop a threshold funding plan.

Statutory Funding
Describes the pursuit of an objective as described or required by local laws or codes. The component calculation method or cash flow calculation method is typically used to develop a statutory funding plan.

♦ ♦ ♦ ♦ RESERVE FUNDING CALCULATION METHODS ♦ ♦ ♦ ♦

There are two funding methods which can be used to develop a reserve funding plan based on a reserve funding goal/objective: Component Calculation Method and Cash Flow Calculation Method. These calculation methods are described as follows:

Component Calculation Method
This calculation method develops a funding plan for each individual reserve component. The sum of the funding plan for each component equals the total funding plan for the association. This method is often referred to as the "straight line"

method and is widely believed to be the most conservative reserve funding method. This method structures a funding plan that enables the association to pay all reserve expenditures as they come due, enables the association to achieve the ideal level of reserves in time, and then enables the association to maintain the ideal level of reserves through time. The following is a detailed description of the component calculation method:

Step 1: Calculation of fully funded balance for each component

The fully funded balance is calculated for each component based on its age, useful life and current cost. The actual formula is as follows:

$$\text{Fully Funded Balance} = \frac{\text{Age}}{\text{Useful Life}} \text{ X Current Cost}$$

Step 2: Distribution of current reserve funds

The association's current reserve funds are assigned to (or distributed amongst) the reserve components based on each component's remaining life and fully funded balance as follows:

Pass 1: Components are organized in remaining life order, from least to greatest, and the current reserve funds are assigned to each component up to its fully funded balance, until reserves are exhausted.

Pass 2: If all components are assigned their fully funded balance and additional funds exist, they are assigned in a "second pass." Again, the components are organized in remaining life order, from least to greatest, and the remaining current reserve funds are assigned to each component up to its current cost, until reserves are exhausted.

Pass 3: If all components are assigned their current cost and additional funds exist, they are assigned in a "third pass." Components with a remaining life of zero years are assigned double their current cost.

Distributing, or assigning, the current reserve funds in this manner is the most efficient use of the funds on hand – it defers the make-up period of any underfunded reserves over the lives of the components with the largest remaining lives.

Step 3: Developing a funding plan

After step 2, all components have a "starting" balance. A calculation is made to determine what funding would be required to get from the starting balance to the future cost over the number of years remaining until replacement. The funding plan incorporates the annual contribution increase parameter to develop a "stair stepped" contribution.

For example, if an association needs to accumulate $100,000 in ten years, $10,000 could be contributed each year. Alternatively, the association could contribute $8,723 in the first year and increase the contribution by 3% each year thereafter until the tenth year.

In most cases, this rate should match the inflation parameter. Matching the annual contribution increase parameter to the inflation parameter indicates, in theory, that member contributions should increase at the same rate as the cost of living (inflation parameter). Due to the "time value of money," this creates the most equitable distribution of member contributions through time.

Using an annual contribution increase parameter that is greater than the inflation parameter will reduce the burden to the current membership at the expense of the future membership. Using an annual contribution increase parameter that is less than the inflation parameter will increase the burden to the current membership to the benefit of the future membership. The following chart shows a comparison:

	0% Increase	3% Increase	10% Increase
Year 1	$10,000.00	$8,723.05	$6,274.54
Year 2	$10,000.00	$8,984.74	$6,901.99
Year 3	$10,000.00	$9,254.28	$7,592.19
Year 4	$10,000.00	$9,531.91	$8,351.41
Year 5	$10,000.00	$9,817.87	$9,186.55
Year 6	$10,000.00	$10,112.41	$10,105.21
Year 7	$10,000.00	$10,415.78	$11,115.73
Year 8	$10,000.00	$10,728.25	$12,227.30
Year 9	$10,000.00	$11,050.10	$13,450.03
Year 10	$10,000.00	$11,381.60	$14,795.04
TOTAL	$100,000.00	$100,000.00	$100,000.00

This parameter is used to develop a funding plan only; it does not mean that the reserve contributions must be raised each year. There are far more significant factors that will contribute to a total reserve contribution increase or decrease from year to year than this parameter.

One of the major benefits of using this calculation method is that for any single component (or group of components), the accumulated balance and reserve funding can be precisely calculated. For example, using this calculation method, the reserve analysis can indicate the exact amount of current reserve funds "in the bank" for the roofs and the amount of money being funded towards the roofs each month. This information is displayed on the Management / Accounting Summary and Charts as well as elsewhere within the report.

The component calculation method is typically used for well-funded associations (greater that 65% funded) with a goal/ objective of full funding.

Cash Flow Calculation Method

This calculation method develops a funding plan based on current reserve funds and projected expenditures during a specific timeframe (typically 30 years). This funding method structures a funding plan that enables the association to pay for all reserve expenditures as they come due, but is not necessarily concerned with the ideal level of reserves through time.

This calculation method tests reserve contributions against reserve expenditures through time to determine the minimum contribution necessary (baseline funding) or some other defined goal/objective (full funding, threshold funding or statutory funding).

Unlike the component calculation method, this calculation method cannot precisely calculate the reserve funding for any single component (or group of components). In order to work-around this issue to provide this bookkeeping information, a formula has been applied to component method results to calculate a reasonable breakdown. This information is displayed on the Management / Accounting Summary and Charts as well as elsewhere within the report.

The cash flow calculation method is typically used for under-funded associations (less than 65% funded) with a goal/ objective of full funding, threshold funding, baseline funding or statutory funding.

Preface

♦ ♦ ♦ ♦ READING THE RESERVE ANALYSIS ♦ ♦ ♦ ♦

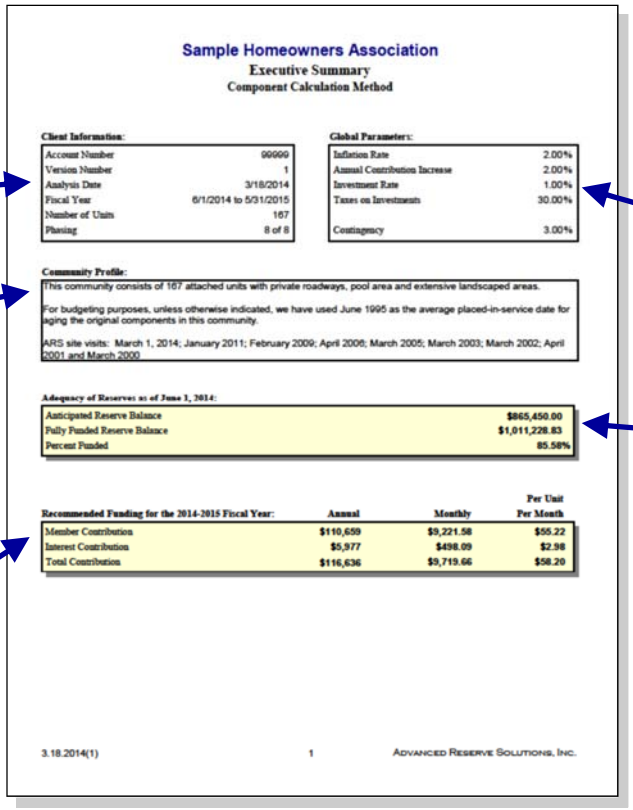
In some cases, the reserve analysis may be a lengthy document of one hundred pages or more. A complete and thorough review of the reserve analysis is always a good idea. However, if time is limited, it is suggested that a thorough review of the summary pages be made. If a "red flag" is raised in this review, the reader should then check the detail information, of the component in question, for all relevant information. In this section, a description of most of the summary or report sections is provided along with comments regarding what to look for and how to use each section.

Executive Summary

Provides general information about the client, global parameters used in the calculation of the reserve analysis as well as the core results of the reserve analysis.

Client Information
Provides various client information including fiscal year for which the reserve analysis was prepared, number of units, phasing, etc.

Global Parameters
Displays the calculation parameters that were used to calculate the reserve analysis including inflation, annual contribution increase, investment rate, tax rate and contingency.



Sample Homeowners Association
Executive Summary
Component Calculation Method

Client Information:

Account Number	99999
Version Number	1
Analysis Date	3/18/2014
Fiscal Year	6/1/2014 to 5/31/2015
Number of Units	167
Phasing	8 of 8

Global Parameters:

Inflation Rate	2.00%
Annual Contribution Increase	2.00%
Investment Rate	1.00%
Taxes on Investments	30.00%
Contingency	3.00%

Community Profile:
This community consists of 167 attached units with private roadways, pool area and extensive landscaped areas.

For budgeting purposes, unless otherwise indicated, we have used June 1995 as the average placed-in-service date for aging the original components in this community.

ARS site visits: March 1, 2014; January 2011; February 2009; April 2006; March 2005; March 2003; March 2002; April 2001 and March 2000

Adequacy of Reserves as of June 1, 2014:

Anticipated Reserve Balance	$865,450.00
Fully Funded Reserve Balance	$1,011,228.83
Percent Funded	85.58%

Recommended Funding for the 2014-2015 Fiscal Year:	Annual	Monthly	Per Unit Per Month
Member Contribution	$110,659	$9,221.58	$55.22
Interest Contribution	$5,977	$498.09	$2.98
Total Contribution	$116,636	$9,719.66	$58.20

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Community Profile
Provides brief description of the community, as well as other "global" type comments.

Budget
Provides recommended funding for the fiscal year for which the reserve analysis was prepared. Indicates the reserve funding from the membership, anticipated interest contribution and the total contribution

Adequacy of Reserves
Displays the results of calculations with regard to the "health" of the reserve fund as of the beginning of the fiscal year for which the reserve analysis was prepared. Provides the anticipated reserve balance, fully funded reserve balance and the percent funded.

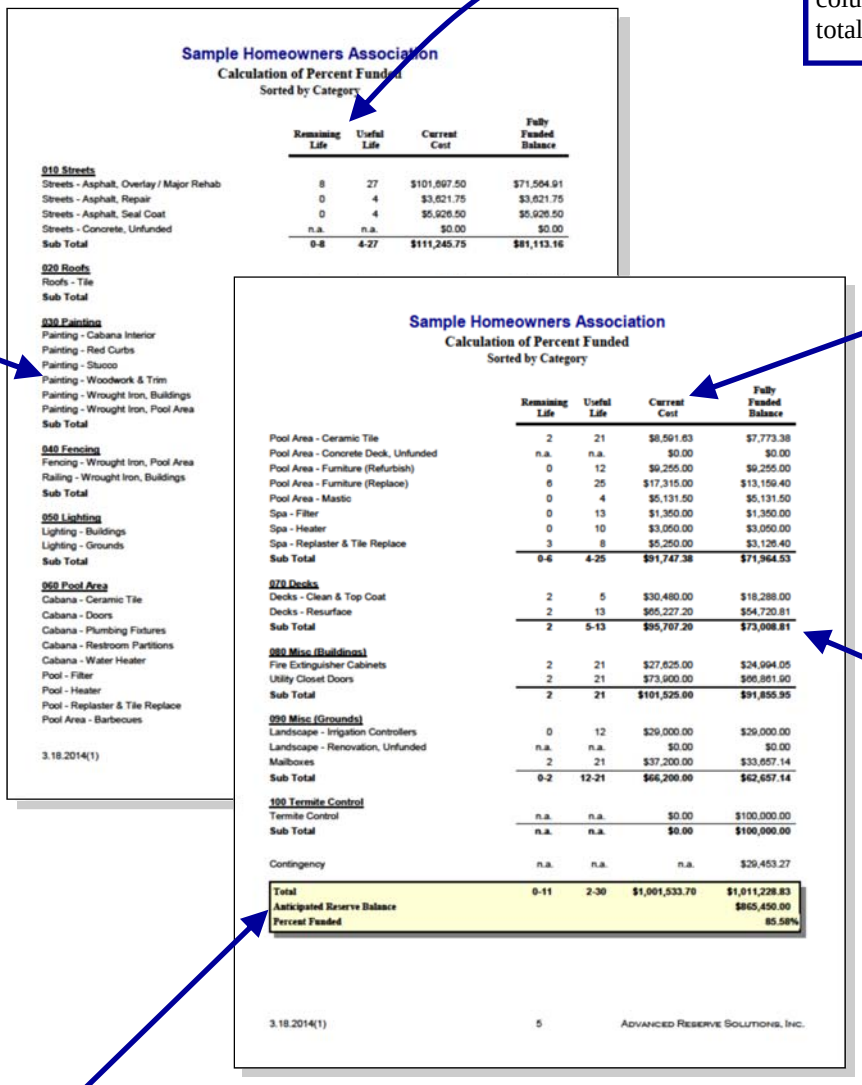
Preface

Calculation of Percent Funded

Summary displays all reserve components, shown here in "category" order. Provides the remaining life, useful life, current cost and the fully funded balance at the beginning of the fiscal year for which the reserve analysis was prepared.

Lifespans
Remaining life and useful life are displayed. And, these columns are conveniently sub totaled to show range.

Reserve Components
All components are displayed (shown here in "category" order).



Sample Homeowners Association
Calculation of Percent Funded
Sorted by Category

	Remaining Life	Useful Life	Current Cost	Fully Funded Balance
010 Streets				
Streets - Asphalt, Overlay / Major Rehab	8	27	$101,697.50	$71,564.91
Streets - Asphalt, Repair	0	4	$3,621.75	$3,621.75
Streets - Asphalt, Seal Coat	0	4	$5,926.50	$5,926.50
Streets - Concrete, Unfunded	n.a.	n.a.	$0.00	$0.00
Sub Total	**0-8**	**4-27**	**$111,245.75**	**$81,113.16**
020 Roofs				
Roofs - Tile				
Sub Total				
030 Painting				
Painting - Cabana Interior				
Painting - Red Curbs				
Painting - Stucco				
Painting - Woodwork & Trim				
Painting - Wrought Iron, Buildings				
Painting - Wrought Iron, Pool Area				
Sub Total				
040 Fencing				
Fencing - Wrought Iron, Pool Area				
Railing - Wrought Iron, Buildings				
Sub Total				
050 Lighting				
Lighting - Buildings				
Lighting - Grounds				
Sub Total				
060 Pool Area				
Cabana - Ceramic Tile				
Cabana - Doors				
Cabana - Plumbing Fixtures				
Cabana - Restroom Partitions				
Cabana - Water Heater				
Pool - Filter				
Pool - Heater				
Pool - Replaster & Tile Replace				
Pool Area - Barbecues				

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Sample Homeowners Association
Calculation of Percent Funded
Sorted by Category

	Remaining Life	Useful Life	Current Cost	Fully Funded Balance
Pool Area - Ceramic Tile	2	21	$8,591.63	$7,773.38
Pool Area - Concrete Deck, Unfunded	n.a.	n.a.	$0.00	$0.00
Pool Area - Furniture (Refurbish)	0	12	$9,255.00	$9,255.00
Pool Area - Furniture (Replace)	6	25	$17,315.00	$13,159.40
Pool Area - Mastic	0	4	$5,131.50	$5,131.50
Spa - Filter	0	13	$1,350.00	$1,350.00
Spa - Heater	0	10	$3,050.00	$3,050.00
Spa - Replaster & Tile Replace	3	8	$5,250.00	$3,126.40
Sub Total	**0-6**	**4-25**	**$91,747.38**	**$71,964.53**
070 Decks				
Decks - Clean & Top Coat	2	5	$30,480.00	$18,288.00
Decks - Resurface	2	13	$65,227.20	$54,720.81
Sub Total	**2**	**5-13**	**$95,707.20**	**$73,008.81**
080 Misc (Buildings)				
Fire Extinguisher Cabinets	2	21	$27,625.00	$24,994.05
Utility Closet Doors	2	21	$73,900.00	$66,861.90
Sub Total	**2**	**21**	**$101,525.00**	**$91,855.95**
090 Misc (Grounds)				
Landscape - Irrigation Controllers	0	12	$29,000.00	$29,000.00
Landscape - Renovation, Unfunded	n.a.	n.a.	$0.00	$0.00
Mailboxes	2	21	$37,200.00	$33,657.14
Sub Total	**0-2**	**12-21**	**$66,200.00**	**$62,657.14**
100 Termite Control				
Termite Control	n.a.	n.a.	$0.00	$100,000.00
Sub Total	**n.a.**	**n.a.**	**$0.00**	**$100,000.00**
Contingency	n.a.	n.a.	n.a.	$29,453.27
Total	**0-11**	**2-30**	**$1,001,533.70**	**$1,011,228.83**
Anticipated Reserve Balance				**$865,450.00**
Percent Funded				**85.58%**

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Current Cost
Displays the current cost to replace or otherwise maintain each component. This column is conveniently sub totaled.

Fully Funded Balance
Displays the fully funded balance for each component. This column is conveniently sub totaled.

The total current cost to replace or otherwise maintain all components, total fully funded balance, anticipated reserve balance and percent funded are provided at the bottom of this summary. Also shown is the range of reserve component remaining lives and useful lives.

Preface

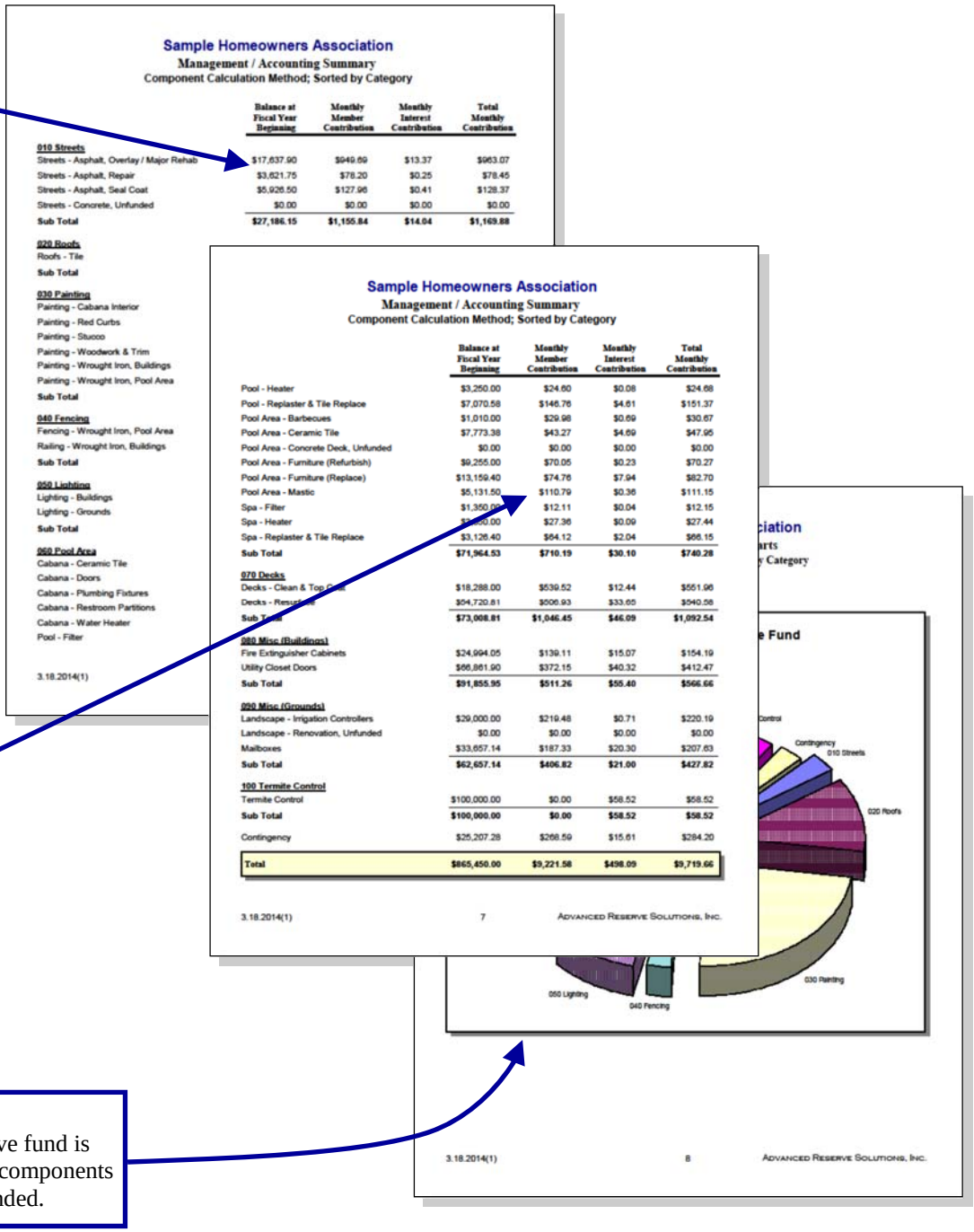
Management / Accounting Summary and Charts

Summary displays all reserve components, shown here in "category" order. Provides the assigned reserve funds at the beginning of the fiscal year for which the reserve analysis was prepared along with the monthly member contribution, interest contribution and total contribution for each component and category. Pie charts show graphically how the total reserve fund is distributed amongst the reserve component categories and how each category is funded on a monthly basis.

Balance at FYB
Shows the amount of reserve funds assigned to each reserve component. And, this column is conveniently sub totaled.

Monthly Funding
Displays the monthly funding for each component from the members and interest. Total monthly funding is also indicated. And, these columns are conveniently sub totaled.

Pie Charts
Show graphically how the reserve fund is distributed amongst the reserve components and how the components are funded.



Sample Homeowners Association
Management / Accounting Summary
Component Calculation Method; Sorted by Category

	Balance at Fiscal Year Beginning	Monthly Member Contribution	Monthly Interest Contribution	Total Monthly Contribution
010 Streets				
Streets - Asphalt, Overlay / Major Rehab	$17,637.90	$949.69	$13.37	$963.07
Streets - Asphalt, Repair	$3,621.75	$78.20	$0.25	$78.45
Streets - Asphalt, Seal Coat	$5,926.50	$127.96	$0.41	$128.37
Streets - Concrete, Unfunded	$0.00	$0.00	$0.00	$0.00
Sub Total	$27,186.15	$1,155.84	$14.04	$1,169.88
020 Roofs				
Roofs - Tile				
Sub Total				
030 Painting				
Painting - Cabana Interior				
Painting - Red Curbs				
Painting - Stucco				
Painting - Woodwork & Trim				
Painting - Wrought Iron, Buildings				
Painting - Wrought Iron, Pool Area				
Sub Total				
040 Fencing				
Fencing - Wrought Iron, Pool Area				
Railing - Wrought Iron, Buildings				
Sub Total				
050 Lighting				
Lighting - Buildings				
Lighting - Grounds				
Sub Total				
060 Pool Area				
Cabana - Ceramic Tile				
Cabana - Doors				
Cabana - Plumbing Fixtures				
Cabana - Restroom Partitions				
Cabana - Water Heater				
Pool - Filter				

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Sample Homeowners Association
Management / Accounting Summary
Component Calculation Method; Sorted by Category

	Balance at Fiscal Year Beginning	Monthly Member Contribution	Monthly Interest Contribution	Total Monthly Contribution
Pool - Heater	$3,250.00	$24.60	$0.08	$24.68
Pool - Replaster & Tile Replace	$7,070.58	$146.76	$4.61	$151.37
Pool Area - Barbecues	$1,010.00	$29.98	$0.69	$30.67
Pool Area - Ceramic Tile	$7,773.38	$43.27	$4.69	$47.95
Pool Area - Concrete Deck, Unfunded	$0.00	$0.00	$0.00	$0.00
Pool Area - Furniture (Refurbish)	$9,255.00	$70.05	$0.23	$70.27
Pool Area - Furniture (Replace)	$13,159.40	$74.76	$7.94	$82.70
Pool Area - Mastic	$5,131.50	$110.79	$0.36	$111.15
Spa - Filter	$1,350.00	$12.11	$0.04	$12.15
Spa - Heater	$3,060.00	$27.36	$0.09	$27.44
Spa - Replaster & Tile Replace	$3,126.40	$64.12	$2.04	$66.15
Sub Total	$71,964.53	$710.19	$30.10	$740.28
070 Decks				
Decks - Clean & Top Coat	$18,288.00	$539.52	$12.44	$551.96
Decks - Resurface	$54,720.81	$506.93	$33.65	$540.58
Sub Total	$73,008.81	$1,046.45	$46.09	$1,092.54
080 Misc (Buildings)				
Fire Extinguisher Cabinets	$24,994.05	$139.11	$15.07	$154.19
Utility Closet Doors	$66,861.90	$372.15	$40.32	$412.47
Sub Total	$91,855.95	$511.26	$55.40	$566.66
090 Misc (Grounds)				
Landscape - Irrigation Controllers	$29,000.00	$219.48	$0.71	$220.19
Landscape - Renovation, Unfunded	$0.00	$0.00	$0.00	$0.00
Mailboxes	$33,657.14	$187.33	$20.30	$207.63
Sub Total	$62,657.14	$406.82	$21.00	$427.82
100 Termite Control				
Termite Control	$100,000.00	$0.00	$58.52	$58.52
Sub Total	$100,000.00	$0.00	$58.52	$58.52
Contingency	$25,207.28	$268.59	$15.61	$284.20
Total	$865,450.00	$9,221.58	$498.09	$9,719.66

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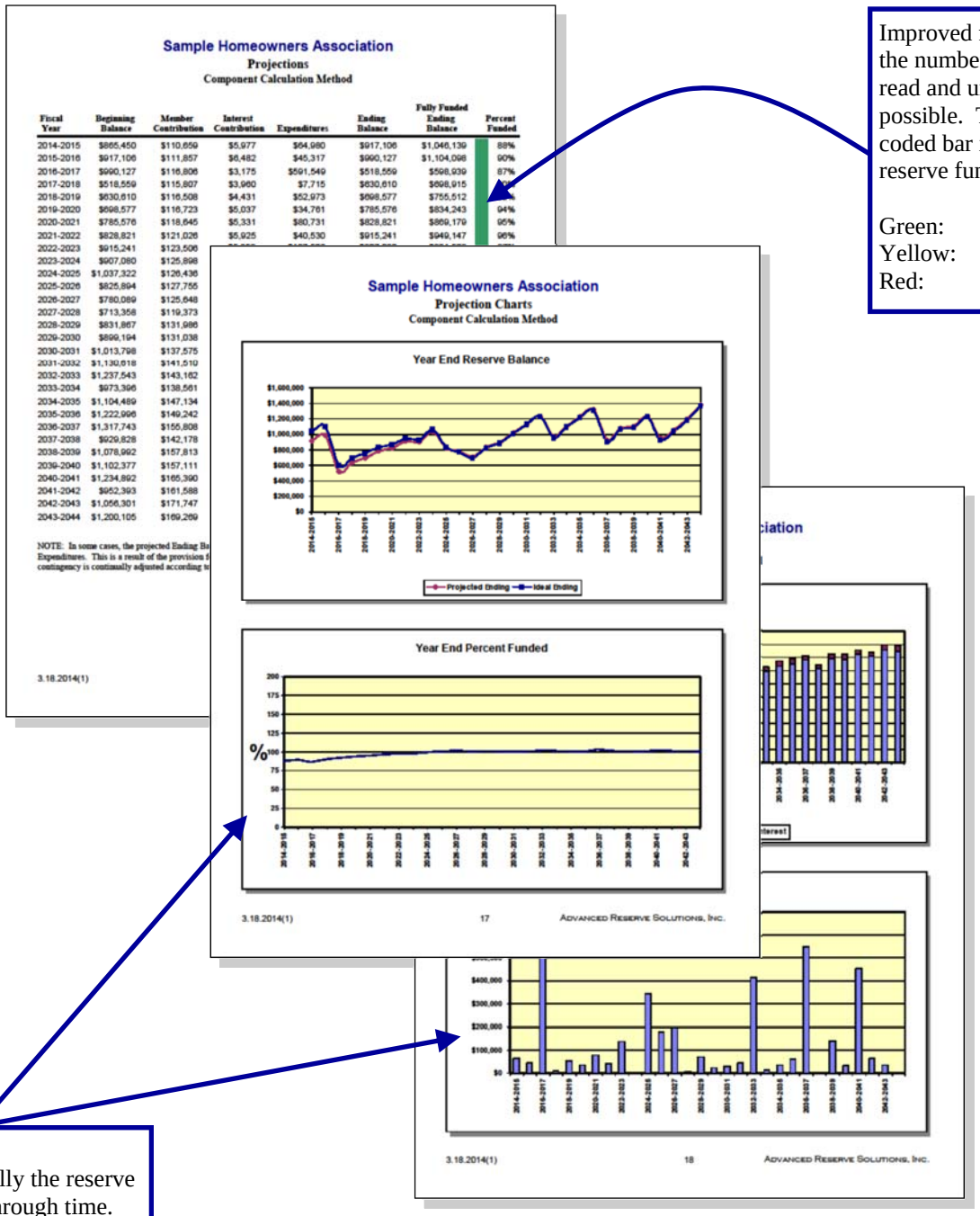
Projections and Charts

Summary displays projections of beginning reserve balance, member contribution, interest contribution, expenditures and ending reserve balance for each year of the projection period (shown here for 30 years). The two columns on the right-hand side provide the fully funded ending balance and the percent funded for each year. Charts show the same information in an easy-to-understand graphic format.



Improved format makes the numbers as easy to read and understand as possible. The color-coded bar indicates the reserve fund status:

Green:	Good
Yellow:	Fair
Red:	Poor

Charts
Show graphically the reserve funding plan through time.

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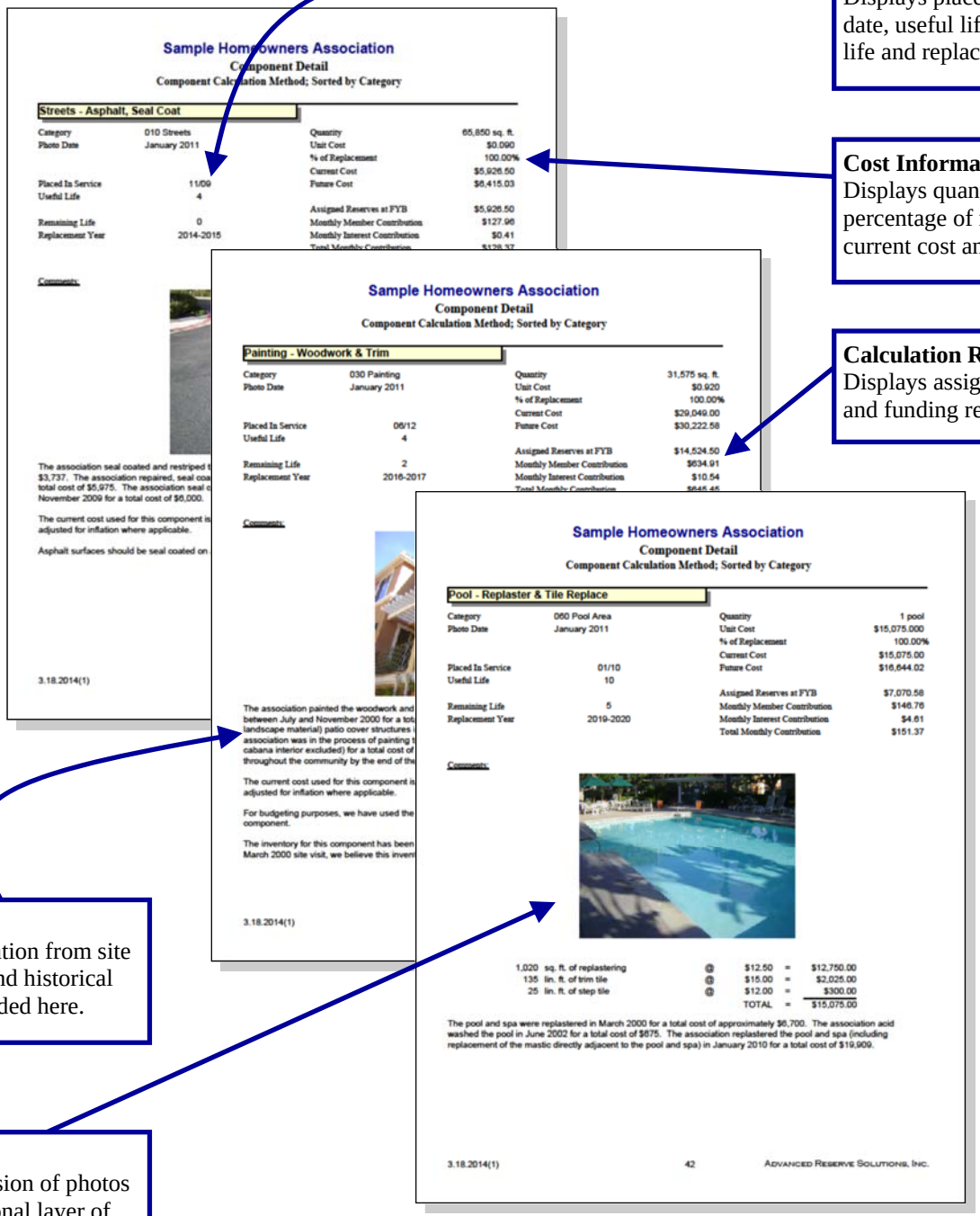
Component Detail

Summary provides detailed information about each reserve component. These pages display all information about each reserve component as well as comments from site observations and historical information regarding replacement or other maintenance.



Lifespan Information
Displays placed-in-service date, useful life, remaining life and replacement year.

Cost Information
Displays quantity, unit cost, percentage of replacement, current cost and future cost.

Calculation Results
Displays assigned reserves and funding requirements.

Comments
Useful information from site observations and historical expenses included here.

Photos
Optional inclusion of photos adds an additional layer of detail to the reserve analysis.

Preface

♦ ♦ ♦ ♦ GLOSSARY OF KEY TERMS ♦ ♦ ♦ ♦

Annual Contribution Increase Parameter
The rate used in the calculation of the funding plan. This rate is used on an annual compounding basis. This rate represents, in theory, the rate the association expects to increase contributions each year.

In most cases, this rate should match the inflation parameter. Matching the annual contribution increase parameter to the inflation parameter indicates, in theory, that member contributions should increase at the same rate as the cost of living (inflation parameter). Due to the "time value of money," this creates the most equitable distribution of member contributions through time.

This parameter is used to develop a funding plan only; it does not mean that the reserve contributions must be raised each year. There are far more significant factors that will contribute to a total reserve contribution increase or decrease from year to year than this parameter. See the description of "reserve funding calculation methods" in this preface for more detail on this parameter.

Anticipated Reserve Balance (or Reserve Funds)
The amount of money, as of a certain point in time, held by the association to be used for the repair or replacement of reserve components. This figure is "anticipated" because it is calculated based on the most current financial information available as of the analysis date, which is almost always prior to the fiscal year beginning date for which the reserve analysis is prepared.

Assigned Funds (and "Fixed" Assigned Funds)
The amount of money, as of the fiscal year beginning date for which the reserve analysis is prepared, that a reserve component has been assigned.

The assigned funds are considered "fixed" when the normal calculation process is bypassed and a specific amount of money is assigned to a reserve component. For example, if the normal calculation process assigns $10,000 to the roofs, but the association would like to show $20,000 assigned to roofs, "fixed" funds of $20,000 can be assigned.

Cash Flow Calculation Method
Reserve funding calculation method developed based on total annual expenditures. A more detailed description of the actual calculation process is included in the "reserve funding calculation methods" section of the preface.

Component Calculation Method
Reserve funding calculation method developed based on each individual component. A more detailed description of the actual calculation process is included in the "reserve funding calculation methods" section of the preface.

Contingency Parameter
The rate used as a built-in buffer in the calculation of the funding plan. This rate will assign a percentage of the reserve funds, as of the fiscal year beginning, as contingency funds and will also determine the level of funding toward the contingency each month.

Current Replacement Cost
The amount of money, as of the fiscal year beginning date for which the reserve analysis is prepared, that a reserve component is expected to cost to replace.

Fiscal Year
Indicates the budget year for the association for which the reserve analysis was prepared. The fiscal year beginning (FYB) is the first day of the budget year; the fiscal year end (FYE) is the last day of the budget year.

Fully Funded Reserve Balance (or Ideal Reserves)
The amount of money that should theoretically have accumulated in the reserve fund as of a certain point in time. Fully funded reserves are calculated for each reserve component based on the current replacement cost, age and useful life:

$$\text{Fully Funded Reserves} = \frac{\text{Age}}{\text{Useful Life}} \times \text{Current Replacement Cost}$$

The fully funded reserve balance is the sum of the fully funded reserves for each reserve component.

An association that has accumulated the fully funded reserve balance does not have all of the funds necessary to replace all of its reserve components immediately; it has the proportionately appropriate reserve funds for the reserve components it maintains, based on each component's current replacement cost, age and useful life.

Future Replacement Cost
The amount of money, as of the fiscal year during which replacement of a reserve component is scheduled, that a reserve component is expected to cost to replace. This cost is calculated using the current replacement cost compounded annually by the inflation parameter.

Global Parameters
The financial parameters used to calculate the reserve analysis. See also "inflation parameter," "annual contribution increase parameter," "investment rate parameter" and "taxes on investments parameter."

Inflation Parameter
The rate used in the calculation of future costs for reserve components. This rate is used on an annual compounding basis. This rate represents the rate the association expects the cost of goods and services relating to their reserve components to increase each year.

Interest Contribution
The amount of money contributed to the reserve fund by the interest earned on the reserve fund and member contributions.

Investment Rate Parameter
The gross rate used in the calculation of interest contribution (interest earned) from the reserve balance and member contributions. This rate (net of the taxes on investments parameter) is used on a monthly compounding basis. This parameter represents the weighted average interest rate the association expects to earn on their reserve fund investments.

Membership Contribution
The amount of money contributed to the reserve fund by the association's membership.

Monthly Contribution (and "Fixed" Monthly Contribution)
The amount of money, for the fiscal year which the reserve analysis is prepared, that a reserve component will be funded.

The monthly contribution is considered "fixed" when the normal calculation process is bypassed and a specific amount of money is funded to a reserve component. For example, if the normal calculation process funds $1,000 to the roofs each month, but the association would like to show $500 funded to roofs each month, a "fixed" contribution of $500 can be assigned.

Number of Units (or other assessment basis)
Indicates the number of units for which the reserve analysis was prepared. In "phased" developments (see phasing), this number represents the number of units, and corresponding common area components, that existed as of a certain point in time.

For some associations, assessments and reserve contributions are based on a unit of measure other than the number of units. Examples include time-interval weeks for timeshare resorts or lot acreage for commercial/industrial developments.

One-Time Replacement
Used for components that will be budgeted for only once.

Percent Funded
A measure, expressed as a percentage, of the association's reserve fund "health" as of a certain point in time. This number is the ratio of the anticipated reserve fund balance to the fully funded reserve balance:

$$\text{Percent Funded} = \frac{\text{Anticipated Reserve Fund Balance}}{\text{Fully Funded Reserve Balance}}$$

An association that is 100% funded does not have all of the reserve funds necessary to replace all of its reserve components immediately; it has the proportionately appropriate reserve funds for the reserve components it maintains, based on each component's current replacement cost, age and useful life.

Percentage of Replacement
The percentage of the reserve component that is expected to be replaced.

For most reserve components, this percentage should be 100%. In some cases, this percentage may be more or less than 100%. For example, fencing which is shared with a neighboring community may be set at 50%.

Phasing
Indicates the number of phases for which the reserve analysis was prepared and the total number of phases expected at build-out (i.e. Phase 4 of 7). In phased developments, the first number represents the number of phases, and corresponding common area components, that existed as of a certain point in time. The second number represents the number of phases that are expected to exist at build-out.

Placed-In-Service Date
The date (month and year) that the reserve component was originally put into service or last replaced.

Remaining Life
The length of time, in years, until a reserve component is scheduled to be replaced.

Remaining Life Adjustment
The length of time, in years, that a reserve component is expected to last in excess (or deficiency) of its useful life for the current cycle of replacement.

If the current cycle of replacement for a reserve component is expected to be greater than or less than the "normal" life expectancy, the reserve component's life should be adjusted using a remaining life adjustment.

For example, if wood trim is painted normally on a 4 year cycle, the useful life should be 4 years. However, when it comes time to paint the wood trim and it is determined that it can be deferred for an additional year, the useful life should remain at 4 years and a remaining life adjustment of +1 year should be used.

Replacement Year
The fiscal year that a reserve component is scheduled to be replaced.

Reserve Components
Line items included in the reserve analysis.

Taxes on Investments Parameter
The rate used to offset the investment rate parameter in the calculation of the interest contribution. This parameter represents the marginal tax rate the association expects to pay on interest earned by the reserve funds and member contributions.

Total Contribution
The sum of the membership contribution and interest contribution.

Useful Life
The length of time, in years, that a reserve component is expected to last each time it is replaced. See also "remaining life adjustment."

♦ ♦ ♦ ♦ LIMITATIONS OF RESERVE ANALYSIS ♦ ♦ ♦ ♦

This reserve analysis is intended as a tool for the association's Board of Directors to be used in evaluating the association's current physical and financial condition with regard to reserve components. The results of this reserve analysis represent the independent opinion of the preparer. There is no implied warranty or guarantee of this work product.

For the purposes of this reserve analysis, it has been assumed that all components have been installed properly, no construction defects exist and all components are operational. Additionally, it has been assumed that all components will be maintained properly in the future.

The representations set forth in this reserve analysis are based on the best information and estimates of the preparer as of the date of this analysis. These estimates are subject to change. This reserve analysis includes estimates of replacement costs and life expectancies as well as assumptions regarding future events. Some estimates are projections of future events based on information currently available and are not necessarily indicative of the actual future outcome. The longer the time period between the estimate and the estimated event, the more likely the possibility of error and/or discrepancy. For example, some assumptions inevitably will not materialize and unanticipated events and circumstances may occur subsequent to the preparation of this reserve analysis. Therefore, the actual replacement costs and remaining lives may vary from this reserve analysis and the variation may be significant. Additionally, inflation and other economic events may impact this reserve analysis, particularly over an extended period of time and those events could have a significant and negative impact on the accuracy of this reserve analysis and, further, the funds available to meet the association's obligation for repair, replacement or other maintenance of major components during their estimated useful life. Furthermore, the occurrence of vandalism, severe weather conditions, earthquakes, floods, acts of nature or other unforeseen events cannot be predicted and/or accounted for and are excluded when assessing life expectancy, repair and/or replacement costs of the components.

Sample Condominium

Executive Summary

Directed Cash Flow Calculation Method

Client Information:

Account Number	20101
Version Number	1
Analysis Date	02/16/2021
Fiscal Year	1/1/2021 to 12/31/2021
Number of Units	44
Phasing	1 of 1

Global Parameters:

Inflation Rate	2.50 %
Annual Contribution Increase	2.50 %
Investment Rate	0.50 %
Taxes on Investments	30.00 %
Contingency	3.00 %

Community Profile:

The Sample Condominium is a 9-story mixed use residential and commercial building located at 99-101 Sample Street in Boston, Massachusetts. 42 residential units are located on floors 2 - 9. Two commercial units are located at street level. Mechanical penthouse is located on the roof.

The steel and concrete building has brick, granite, and galvanized steel cladding. The roof is comprised mostly of low-slope membrane areas. There are smaller areas of galvanized steel standing seam roofing. Six units have individual roof terraces. Roof terrace areas have wood decks. Construction of the building was completed in 2008, per client. A placed-in-service date of 1/2008 will be used for original components.

ARS site visit: January 8, 2021.

Adequacy of Reserves as of January 1, 2021:

Anticipated Reserve Balance	**$57,850.00**
Fully Funded Reserve Balance	**$783,848.46**
Percent Funded	**7.38%**

Recommended Funding for the 2021 Fiscal Year:	Annual	Monthly	Per Unit Per Month
Member Contribution	**$103,000**	**$8,583.33**	**$195.08**
Interest Contribution	**$249**	**$20.75**	**$0.47**
Total Contribution	**$103,249**	**$8,604.08**	**$195.55**

Sample Condominium

Preparer's Disclosure Statement

Paul Huijing, P.E. completed this reserve study. Consultant certifies that:

1) Consultant has no other involvement with association which could result in actual or perceived conflicts of interest.

2) Consultant made site visits to this community on January 8, 2021.

3) Component conditional assessments were developed by actual field observation and representative sampling.

4) Financial assumptions used in this analysis are listed on the Executive Summary and further explained in the Preface of this report.

5) This is a "Level 1" full reserve study with a site visit.

6) Numerous areas takeoffs made from online registry building plans.

7) Study does not consider effects of global warming.

8) There are no other material issues known to consultant at this time which would cause a distortion of the association's situation.

Sample Condominium

Note Pad

Association Comments:

Current reserve contribution for 2020 fiscal year: $30,000 annually
Total anticipated reserve balance of approximately $57,850 as of 1/1/21, per property manager email 11/2/2020.

Specific Comments:
Interior and minor exterior painting is covered from operating budget, per building manager.

Exterior unit windows, skylights, and doors are responsibility of unit owners, per master deed. Unit doors to common hallway are also unit owner responsibility.

One large roof top fan exhausting air from kitchen on first floor is owned by commercial unit and is not responsibility of association.

In addition to components listed individually, the following components are currently unfunded:
- Small granite slab walkway at main entry recessed area
- Artwork hanging in common areas
- Staff restroom
- Carpet in mailroom and main entry vestibule
- Stairs and stair railings
- Lighting in utility spaces
- Small electric water heater in basement storage room
- Small exhaust fans in elevator equipment, electrical, and fire sprinkler rooms

Components for any of these items can be added if desired.

Galvanized steel general exterior component information:
Apply to galvanized roofs, siding, and parapet wall caps.
Per the American Galvanizers Association: "A hot-dip galvanized product may develop a surface defect known as brown staining, which is created when the iron in the zinc-iron alloy layers oxidizes. The oxidizing of the free iron in the intermetallic layers results in the discoloration of the surrounding zinc coating, changing the surface appearance from the well-known grey appearance of galvanized steel to a brown color."

Per American Galvanizers Association Senior Corrosion Engineer Alana Hochstein, it is recommended that brown stain areas be checked for coating thickness:
- A coating thickness (Dry film thickness or DFT) gauge can be used to identify whether you have brown stain in these areas:
- Coating thickness gauge reading of ~0: This is rust and there is no galvanized coating in this area where the measurement was taken.
- Positive thickness gauge reading (or similar thickness to surrounding parts that are not stained): This is likely brown staining. The base steel is not rusting, and the corrosion performance of the galvanized steel is not affected.

Per Ms. Hochstein, thickness of galvanized coating should be monitored over time. Local companies that specialize in paint and coating inspections can measure the galvanized coating thickness. Time to first major maintenance (5% of surface area is corroded) is described on their website. In a temperate marine environment, minimum time should be 80+ years if galvanized steel is properly installed. Maintenance will involve painting galvanized steel regularly after this major maintenance. The galvanized coating will typically allow paint to remain serviceable about 50% longer than paint applied to bare steel.

General unfunded components:
The following components are often repaired and/or replaced on an as-needed basis and not funded for a complete replacement at one time. There is no practical method to determine the remaining life of these components. Periodic allowances can be included if association has experienced past replacements of these components.

Sample Condominium

Note Pad

Concrete: Anticipated to last life of building. Typically, budgeting for concrete repairs as a reserve component is excluded as it is anticipated repairs required will be addressed immediately due to safety concerns. Minor repairs should be addressed using the client's operating and/or reserve contingency funds. Should the client desire, funding for this component can be included. Areas include but are not limited to: foundations, walls (exterior/interior), balconies, parking structure and decks.

Wood & steel structural framing: Anticipated to last life of building. Repairs done on as-needed basis.

Plumbing pipes: Plumbing systems are built to last the legal life of a building/site. Complete replacement of the common area plumbing pipes (including main and lateral service pipes) is expensive and requires removal of walls, ceilings and floors. Repairs to this type of system are typically done on an as-needed basis for safety and/or building preservation. It is rare that a complete plumbing system is replaced. Most repairs and/or replacements are due to unforeseen issues, product defects, construction defects, improper installation, or from improper chemical treatments. Storm water piping system (if any) is also built to last legal life of association. Repairs to this type of system are also done on an as-needed basis.

Electrical services (lines/meters): Electrical service systems are built to last the legal life of a building/site. Complete replacement of the electrical service lines is expensive and requires removal of walls, ceilings and floors. Repairs required will typically be addressed immediately due to safety concerns. It is rare that a complete electrical system is replaced. Most repairs and/or replacements are due to unforeseen issues, product defects, construction defects, or improper installation.

General Emergency Lighting: The emergency lighting should be tested periodically. Any units damaged or not working should be repaired/replaced immediately.

Sample Condominium

Calculation of Percent Funded

Sorted by Category

	Remaining Life	Useful Life	Current Cost	Fully Funded Balance
010 Roof				
Roof - General Life Extension Measures	0	1	$4,000.00	$4,000.00
Roof - Gutters	17	30	$6,000.00	$2,600.00
Roof - Membrane	12	25	$91,400.00	$47,528.00
Roof - Terraces	7	20	$29,400.00	$19,110.00
Sub Total	**0-17**	**1-30**	**$130,800.00**	**$73,238.00**
020 Building Exterior				
Exterior - Awnings, Main Entry	7	10	$3,200.00	$960.00
Exterior - Cladding, Galvanized	4	5	$7,500.00	$1,500.00
Exterior - Cladding, Inspection	0	5	$10,000.00	$10,000.00
Exterior - Door, Glass	4	17	$3,000.00	$2,294.12
Exterior - Doors, Steel	7	5	$1,700.00	$0.00
Exterior - Lighting	12	25	$4,050.00	$2,106.00
Exterior - Masonry, Major Repairs	27	15	$81,600.00	$0.00
Exterior - Masonry, Major Repairs, Initial	12	25	$81,600.00	$42,432.00
Exterior - Masonry, Minor Repairs	3	3	$10,000.00	$0.00
Exterior - Masonry, Minor Repairs, Initial	0	1	$20,000.00	$20,000.00
Exterior - Terrace Decks	12	25	$39,200.00	$20,384.00
Exterior - Terrace Railings	27	40	$85,000.00	$27,625.00
Exterior - Windows	22	35	$8,925.00	$3,315.00
Sub Total	**0-27**	**1-40**	**$355,775.00**	**$130,616.12**
030 Building Interior				
Interior - Door, Vestibule	7	20	$2,500.00	$1,625.00
Interior - Doors, Common	12	5	$3,225.00	$0.00
Interior - Flooring, Carpet, Hallways	5	10	$11,392.50	$5,696.25
Interior - Flooring, Tile, Lobby	12	25	$9,375.00	$4,875.00
Interior - Flooring, Vinyl	7	20	$3,450.00	$2,242.50
Interior - Furnishings	12	25	$17,300.00	$8,996.00
Interior - Lighting, 1st Floor	12	25	$7,125.00	$3,705.00
Interior - Lighting, Basement & Stairwells	12	25	$9,650.00	$5,018.00
Interior - Lighting, Unit Hallways	12	25	$12,400.00	$6,448.00
Interior - Lobby Renovation	12	25	$10,000.00	$5,200.00
Interior - Signage Allowance	17	30	$5,000.00	$2,166.67
Sub Total	**5-17**	**5-30**	**$91,417.50**	**$45,972.42**
090 Equipment				
Equipment - Access Control, Keyfob System	4	5	$5,000.00	$1,000.00

Sample Condominium

Calculation of Percent Funded

Sorted by Category

	Remaining Life	Useful Life	Current Cost	Fully Funded Balance
Equipment - Access Control, Main Entry Intercom	2	15	$5,000.00	$4,333.33
Equipment - Access Control, Rear Entry Intercom	2	15	$2,000.00	$1,733.33
Equipment - Domestic Hot Water Tank, 2017	6	10	$4,000.00	$1,600.00
Equipment - Domestic Hot Water Tank, 2019	8	10	$4,000.00	$800.00
Equipment - Domestic Hot Water, Boiler, 2008	5	18	$17,500.00	$12,638.89
Equipment - Domestic Hot Water, Boiler, 2019	16	18	$17,500.00	$1,944.44
Equipment - Domestic Hot Water, Pump	7	10	$1,500.00	$450.00
Equipment - Elevator Cab Refurbish	7	20	$20,000.00	$13,000.00
Equipment - Elevator Machine Room, Minisplit	17	30	$27,500.00	$11,916.67
Equipment - Elevator Modernization	17	30	$170,000.00	$73,666.67
Equipment - Emergency Communication BDA	7	20	$13,500.00	$8,775.00
Equipment - Fire Alarm	7	20	$30,000.00	$19,500.00
Equipment - Fire Sprinkler, Jockey Pump	3	16	$3,000.00	$2,437.50
Equipment - Fire Sprinkler, Main Pump	17	30	$25,000.00	$10,833.33
Equipment - Fire Sprinkler, Main Pump Rebuild	7	20	$5,000.00	$3,250.00
Equipment - Generator	17	30	$120,000.00	$52,000.00
Equipment - Generator, Fuel Pump	7	20	$8,000.00	$5,200.00
Equipment - Generator, Fuel Storage	22	35	$4,000.00	$1,485.71
Equipment - HVAC Pumps, Boiler Water	2	15	$10,000.00	$8,666.67
Equipment - HVAC Pumps, Condenser Water	7	20	$20,000.00	$13,000.00
Equipment - HVAC, Boilers	7	20	$110,000.00	$71,500.00
Equipment - HVAC, Cooling Tower	1	14	$130,000.00	$120,714.29
Equipment - HVAC, Cooling Tower, Water Treatme	9	15	$3,500.00	$1,400.00
Equipment - HVAC, Heat Pump, Lobby	11	15	$6,000.00	$1,600.00
Equipment - HVAC, RTU	5	18	$43,000.00	$31,055.56
Equipment - HVAC, Smoke Control	27	40	$30,000.00	$9,750.00
Equipment - HVAC, Unit Heater, Large	7	20	$3,000.00	$1,950.00
Equipment - HVAC, Unit Heaters, Small	4	4	$1,100.00	$0.00
Equipment - Mailboxes	17	30	$3,400.00	$1,473.33
Equipment - Office & Concierge	2	5	$2,500.00	$1,500.00
Equipment - Pumps, Domestic Water Booster	17	30	$45,000.00	$19,500.00
Equipment - Pumps, Sump	2	15	$1,750.00	$1,516.67
Equipment - Surveillance System	4	5	$5,000.00	$1,000.00
Sub Total	**1-27**	**4-40**	**$896,750.00**	**$511,191.39**

Sample Condominium

Calculation of Percent Funded

Sorted by Category

	Remaining Life	Useful Life	Current Cost	Fully Funded Balance
Contingency	n.a.	n.a.	n.a.	$22,830.54
Total	**0-27**	**1-40**	**$1,474,742.50**	**$783,848.46**
Anticipated Reserve Balance				**$57,850.00**
Percent Funded				**7.38%**

Sample Condominium

Management / Accounting Summary

Directed Cash Flow Calculation Method; Sorted by Category

	Balance at Fiscal Year Beginning	Monthly Member Contribution	Monthly Interest Contribution	Total Monthly Contribution
010 Roof				
Roof - General Life Extension Measures	$4,000.00	$0.00	$0.00	$0.00
Roof - Gutters	$0.00	$13.72	$0.03	$13.75
Roof - Membrane	$0.00	$281.62	$0.57	$282.19
Roof - Terraces	$0.00	$147.54	$0.30	$147.84
Sub Total	**$4,000.00**	**$442.89**	**$0.90**	**$443.78**
020 Building Exterior				
Exterior - Awnings, Main Entry	$0.00	$16.06	$0.03	$16.09
Exterior - Cladding, Galvanized	$0.00	$63.84	$0.13	$63.97
Exterior - Cladding, Inspection	$10,000.00	$68.82	$0.14	$68.96
Exterior - Door, Glass	$0.00	$25.54	$0.05	$25.59
Exterior - Doors, Steel	$0.00	$8.53	$0.02	$8.55
Exterior - Lighting	$0.00	$12.48	$0.02	$12.50
Exterior - Masonry, Major Repairs	$0.00	$129.57	$0.26	$129.84
Exterior - Masonry, Major Repairs, Initial	$0.00	$251.43	$0.51	$251.93
Exterior - Masonry, Minor Repairs	$0.00	$112.32	$0.23	$112.55
Exterior - Masonry, Minor Repairs, Initial	$20,000.00	$0.00	$0.00	$0.00
Exterior - Terrace Decks	$0.00	$120.78	$0.24	$121.03
Exterior - Terrace Railings	$0.00	$134.97	$0.27	$135.25
Exterior - Windows	$0.00	$16.57	$0.03	$16.61
Sub Total	**$30,000.00**	**$960.92**	**$1.95**	**$962.86**
030 Building Interior				
Interior - Door, Vestibule	$0.00	$12.55	$0.02	$12.57
Interior - Doors, Common	$0.00	$9.94	$0.02	$9.96
Interior - Flooring, Carpet, Hallways	$0.00	$78.40	$0.16	$78.56
Interior - Flooring, Tile, Lobby	$0.00	$28.89	$0.06	$28.94
Interior - Flooring, Vinyl	$0.00	$17.31	$0.03	$17.35
Interior - Furnishings	$0.00	$53.30	$0.11	$53.41
Interior - Lighting, 1st Floor	$0.00	$21.95	$0.04	$22.00
Interior - Lighting, Basement & Stairwells	$0.00	$29.73	$0.06	$29.79
Interior - Lighting, Unit Hallways	$0.00	$38.21	$0.08	$38.28
Interior - Lobby Renovation	$0.00	$30.81	$0.06	$30.88
Interior - Signage Allowance	$0.00	$11.44	$0.02	$11.46
Sub Total	**$0.00**	**$332.53**	**$0.67**	**$333.20**

Sample Condominium

Management / Accounting Summary

Directed Cash Flow Calculation Method; Sorted by Category

	Balance at Fiscal Year Beginning	Monthly Member Contribution	Monthly Interest Contribution	Total Monthly Contribution
090 Equipment				
Equipment - Access Control, Keyfob System	$0.00	$42.56	$0.09	$42.65
Equipment - Access Control, Main Entry Interco	$0.00	$83.36	$0.17	$83.53
Equipment - Access Control, Rear Entry Interco	$0.00	$33.34	$0.07	$33.41
Equipment - Domestic Hot Water Tank, 2017	$0.00	$23.18	$0.05	$23.23
Equipment - Domestic Hot Water Tank, 2019	$0.00	$17.75	$0.03	$17.78
Equipment - Domestic Hot Water, Boiler, 2008	$0.00	$120.43	$0.24	$120.67
Equipment - Domestic Hot Water, Boiler, 2019	$0.00	$42.10	$0.08	$42.19
Equipment - Domestic Hot Water, Pump	$0.00	$7.53	$0.01	$7.54
Equipment - Elevator Cab Refurbish	$0.00	$100.37	$0.20	$100.57
Equipment - Elevator Machine Room, Minisplit	$0.00	$62.90	$0.13	$63.02
Equipment - Elevator Modernization	$0.00	$388.81	$0.78	$389.59
Equipment - Emergency Communication BDA	$0.00	$67.75	$0.14	$67.88
Equipment - Fire Alarm	$0.00	$150.55	$0.30	$150.85
Equipment - Fire Sprinkler, Jockey Pump	$0.00	$33.70	$0.07	$33.76
Equipment - Fire Sprinkler, Main Pump	$0.00	$57.18	$0.12	$57.29
Equipment - Fire Sprinkler, Main Pump Rebuild	$0.00	$25.09	$0.05	$25.14
Equipment - Generator	$0.00	$274.45	$0.56	$275.01
Equipment - Generator, Fuel Pump	$0.00	$40.15	$0.08	$40.23
Equipment - Generator, Fuel Storage	$0.00	$7.43	$0.01	$7.44
Equipment - HVAC Pumps, Boiler Water	$0.00	$166.72	$0.34	$167.06
Equipment - HVAC Pumps, Condenser Water	$0.00	$100.37	$0.20	$100.57
Equipment - HVAC, Boilers	$0.00	$552.02	$1.12	$553.14
Equipment - HVAC, Cooling Tower	$22,165.05	$3,573.29	$10.38	$3,583.67
Equipment - HVAC, Cooling Tower, Water Treat	$0.00	$13.95	$0.03	$13.97
Equipment - HVAC, Heat Pump, Lobby	$0.00	$19.96	$0.04	$20.00
Equipment - HVAC, RTU	$0.00	$295.91	$0.60	$296.50
Equipment - HVAC, Smoke Control	$0.00	$47.64	$0.10	$47.74
Equipment - HVAC, Unit Heater, Large	$0.00	$15.06	$0.03	$15.08
Equipment - HVAC, Unit Heaters, Small	$0.00	$9.36	$0.02	$9.38
Equipment - Mailboxes	$0.00	$7.78	$0.01	$7.79
Equipment - Office & Concierge	$0.00	$41.68	$0.08	$41.76
Equipment - Pumps, Domestic Water Booster	$0.00	$102.92	$0.21	$103.13
Equipment - Pumps, Sump	$0.00	$29.18	$0.06	$29.23
Equipment - Surveillance System	$0.00	$42.56	$0.09	$42.65

Sample Condominium

Management / Accounting Summary

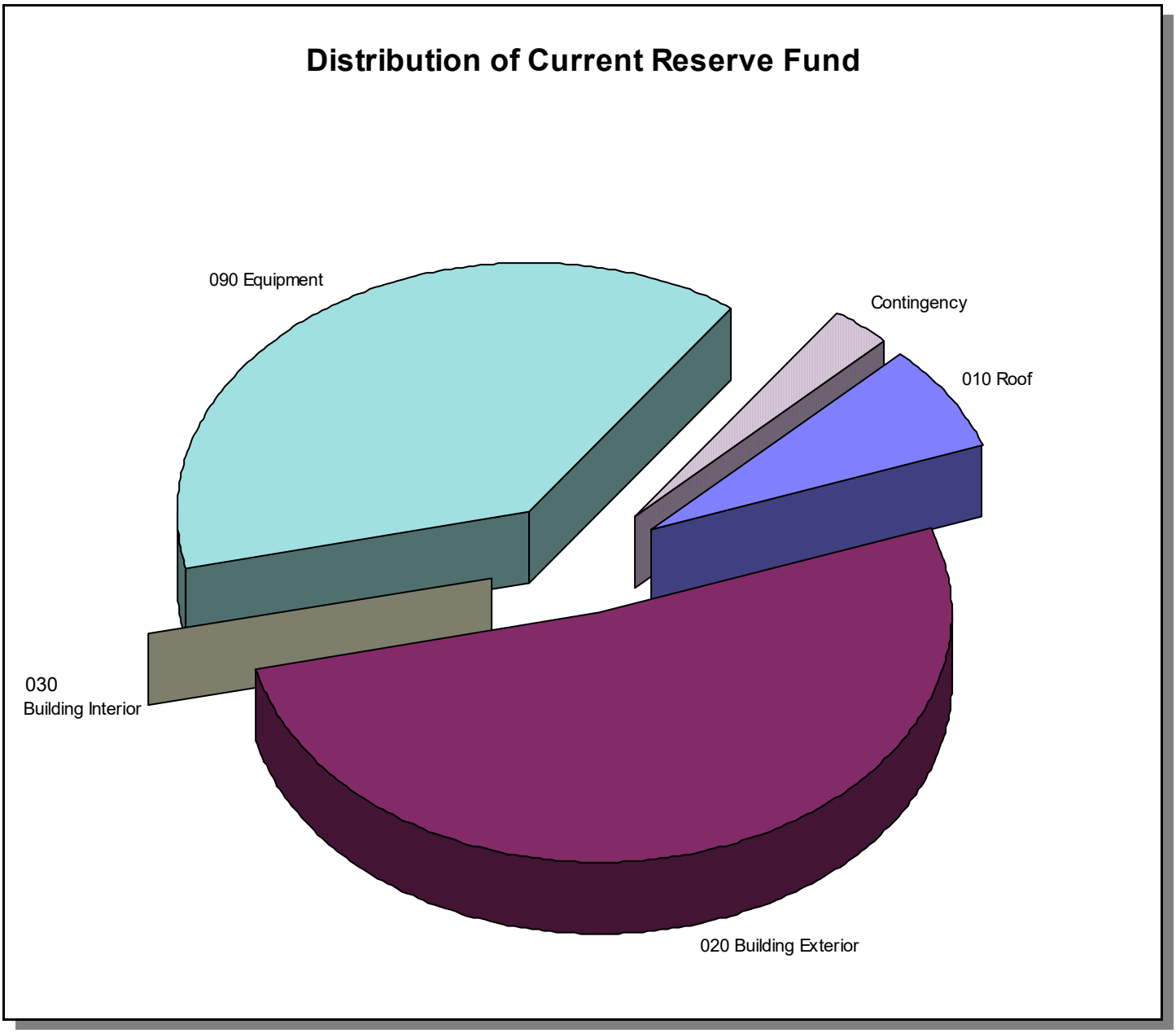
Directed Cash Flow Calculation Method; Sorted by Category

	Balance at Fiscal Year Beginning	Monthly Member Contribution	Monthly Interest Contribution	Total Monthly Contribution
Sub Total	**$22,165.05**	**$6,597.00**	**$16.50**	**$6,613.50**
Contingency	$1,684.95	$250.00	$0.75	$250.75
Total	**$57,850.00**	**$8,583.33**	**$20.75**	**$8,604.08**

Sample Condominium

Management / Accounting Charts

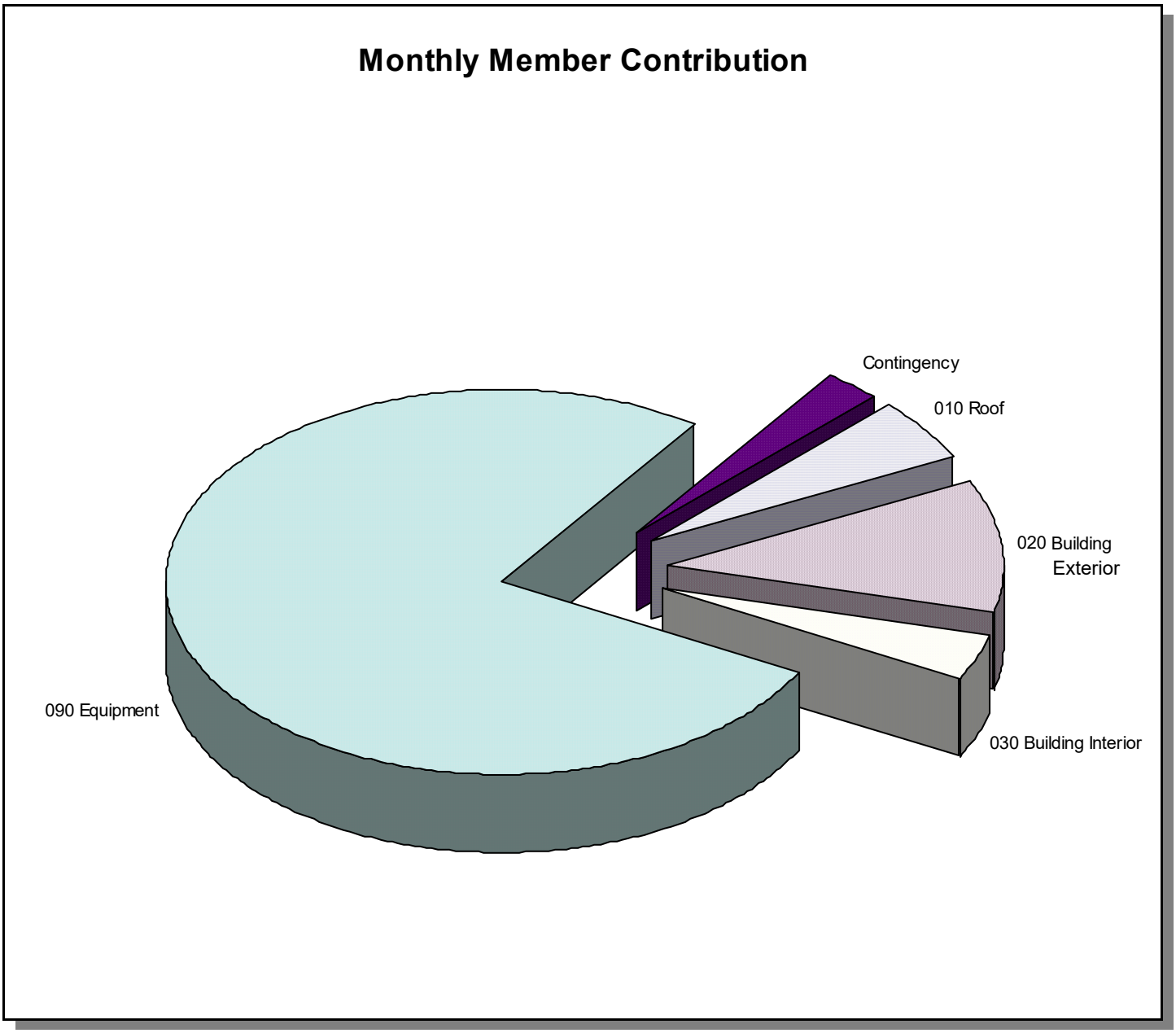
Directed Cash Flow Calculation Method; Sorted by Category



Sample Condominium

Management / Accounting Charts

Directed Cash Flow Calculation Method; Sorted by Category



Sample Condominium

Annual Expenditure Detail

Sorted by Description

2021 Fiscal Year	
Exterior - Cladding, Inspection	$10,000.00
Exterior - Masonry, Minor Repairs, Initial	$20,000.00
Roof - General Life Extension Measures	$4,000.00
Sub Total	**$34,000.00**
2022 Fiscal Year	
Equipment - HVAC, Cooling Tower	$133,250.00
Sub Total	**$133,250.00**
2023 Fiscal Year	
Equipment - Access Control, Main Entry Intercom	$5,253.13
Equipment - Access Control, Rear Entry Intercom	$2,101.25
Equipment - HVAC Pumps, Boiler Water	$10,506.25
Equipment - Office & Concierge	$2,626.56
Equipment - Pumps, Sump	$1,838.59
Sub Total	**$22,325.78**
2024 Fiscal Year	
Equipment - Fire Sprinkler, Jockey Pump	$3,230.67
Exterior - Masonry, Minor Repairs	$10,768.91
Sub Total	**$13,999.58**
2025 Fiscal Year	
Equipment - Access Control, Keyfob System	$5,519.06
Equipment - HVAC, Unit Heaters, Small	$1,214.19
Equipment - Surveillance System	$5,519.06
Exterior - Cladding, Galvanized	$8,278.60
Exterior - Door, Glass	$3,311.44
Sub Total	**$23,842.36**
2026 Fiscal Year	
Equipment - Domestic Hot Water, Boiler, 2008	$19,799.64
Equipment - HVAC, RTU	$48,650.55
Exterior - Cladding, Inspection	$11,314.08
Interior - Flooring, Carpet, Hallways	$12,889.57
Sub Total	**$92,653.85**
2027 Fiscal Year	
Equipment - Domestic Hot Water Tank, 2017	$4,638.77
Exterior - Masonry, Minor Repairs	$11,596.93

Sub Total	**$16,235.71**
2028 Fiscal Year	
Equipment - Domestic Hot Water, Pump	$1,783.03
Equipment - Elevator Cab Refurbish	$23,773.72
Equipment - Emergency Communication BDA	$16,047.26
Equipment - Fire Alarm	$35,660.57
Equipment - Fire Sprinkler, Main Pump Rebuild	$5,943.43
Equipment - Generator, Fuel Pump	$9,509.49
Equipment - HVAC Pumps, Condenser Water	$23,773.72
Equipment - HVAC, Boilers	$130,755.43
Equipment - HVAC, Unit Heater, Large	$3,566.06
Equipment - Office & Concierge	$2,971.71
Exterior - Awnings, Main Entry	$3,803.79
Exterior - Doors, Steel	$2,020.77
Interior - Door, Vestibule	$2,971.71
Interior - Flooring, Vinyl	$4,100.97
Roof - Terraces	$34,947.36
Sub Total	**$301,629.01**
2029 Fiscal Year	
Equipment - Domestic Hot Water Tank, 2019	$4,873.61
Equipment - HVAC, Unit Heaters, Small	$1,340.24
Sub Total	**$6,213.85**
2030 Fiscal Year	
Equipment - Access Control, Keyfob System	$6,244.31
Equipment - HVAC, Cooling Tower, Water Treatment	$4,371.02
Equipment - Surveillance System	$6,244.31
Exterior - Cladding, Galvanized	$9,366.47
Exterior - Masonry, Minor Repairs	$12,488.63
Sub Total	**$38,714.75**
2031 Fiscal Year	
Exterior - Cladding, Inspection	$12,800.85
Sub Total	**$12,800.85**
2032 Fiscal Year	
Equipment - HVAC, Heat Pump, Lobby	$7,872.52
Sub Total	**$7,872.52**

Sample Condominium

Annual Expenditure Detail

Sorted by Description

2033 Fiscal Year	
Equipment - HVAC, Unit Heaters, Small	$1,479.38
Equipment - Office & Concierge	$3,362.22
Exterior - Doors, Steel	$2,286.31
Exterior - Lighting	$5,446.80
Exterior - Masonry, Major Repairs, Initial	$109,742.93
Exterior - Masonry, Minor Repairs	$13,448.89
Exterior - Terrace Decks	$52,719.64
Interior - Doors, Common	$4,337.27
Interior - Flooring, Tile, Lobby	$12,608.33
Interior - Furnishings	$23,266.58
Interior - Lighting, 1st Floor	$9,582.33
Interior - Lighting, Basement & Stairwells	$12,978.18
Interior - Lighting, Unit Hallways	$16,676.62
Interior - Lobby Renovation	$13,448.89
Roof - Membrane	$122,922.84
Sub Total	**$404,307.20**
2034 Fiscal Year	
Equipment - Fire Sprinkler, Jockey Pump	$4,135.53
Sub Total	**$4,135.53**
2035 Fiscal Year	
Equipment - Access Control, Keyfob System	$7,064.87
Equipment - Surveillance System	$7,064.87
Exterior - Cladding, Galvanized	$10,597.30
Sub Total	**$24,727.04**
2036 Fiscal Year	
Exterior - Cladding, Inspection	$14,482.98
Exterior - Masonry, Minor Repairs	$14,482.98
Interior - Flooring, Carpet, Hallways	$16,499.74
Sub Total	**$45,465.70**
2037 Fiscal Year	
Equipment - Domestic Hot Water Tank, 2017	$5,938.02
Equipment - Domestic Hot Water, Boiler, 2019	$25,978.85
Equipment - HVAC, Unit Heaters, Small	$1,632.96
Sub Total	**$33,549.83**

Sample Condominium

Annual Expenditure Detail

Sorted by Description

2038 Fiscal Year	
Equipment - Access Control, Main Entry Intercom	$7,608.09
Equipment - Access Control, Rear Entry Intercom	$3,043.24
Equipment - Domestic Hot Water, Pump	$2,282.43
Equipment - Elevator Machine Room, Minisplit	$41,844.50
Equipment - Elevator Modernization	$258,675.10
Equipment - Fire Sprinkler, Main Pump	$38,040.46
Equipment - Generator	$182,594.19
Equipment - HVAC Pumps, Boiler Water	$15,216.18
Equipment - Mailboxes	$5,173.50
Equipment - Office & Concierge	$3,804.05
Equipment - Pumps, Domestic Water Booster	$68,472.82
Equipment - Pumps, Sump	$2,662.83
Exterior - Awnings, Main Entry	$4,869.18
Exterior - Doors, Steel	$2,586.75
Interior - Doors, Common	$4,907.22
Interior - Signage Allowance	$7,608.09
Roof - Gutters	$9,129.71
Sub Total	**$658,518.34**
2039 Fiscal Year	
Equipment - Domestic Hot Water Tank, 2019	$6,238.63
Exterior - Masonry, Minor Repairs	$15,596.59
Sub Total	**$21,835.22**
2040 Fiscal Year	
Equipment - Access Control, Keyfob System	$7,993.25
Equipment - HVAC, Cooling Tower	$207,824.52
Equipment - Surveillance System	$7,993.25
Exterior - Cladding, Galvanized	$11,989.88
Exterior - Door, Glass	$4,795.95
Sub Total	**$240,596.85**
2041 Fiscal Year	
Equipment - HVAC, Unit Heaters, Small	$1,802.48
Exterior - Cladding, Inspection	$16,386.16
Sub Total	**$18,188.64**
2042 Fiscal Year	
Exterior - Masonry, Minor Repairs	$16,795.82

Sub Total	**$16,795.82**
2043 Fiscal Year	
Equipment - Elevator Cab Refurbish	$34,431.43
Equipment - Generator, Fuel Storage	$6,886.29
Equipment - Office & Concierge	$4,303.93
Exterior - Doors, Steel	$2,926.67
Exterior - Windows	$15,365.02
Interior - Doors, Common	$5,552.07
Sub Total	**$69,465.41**
2044 Fiscal Year	
Equipment - Domestic Hot Water, Boiler, 2008	$30,880.69
Equipment - Fire Sprinkler, Jockey Pump	$5,293.83
Sub Total	**$36,174.52**
2045 Fiscal Year	
Equipment - Access Control, Keyfob System	$9,043.63
Equipment - HVAC, Cooling Tower, Water Treatment	$6,330.54
Equipment - HVAC, Unit Heaters, Small	$1,989.60
Equipment - Surveillance System	$9,043.63
Exterior - Cladding, Galvanized	$13,565.44
Exterior - Masonry, Minor Repairs	$18,087.26
Sub Total	**$58,060.10**
2046 Fiscal Year	
Equipment - HVAC, RTU	$79,719.60
Exterior - Cladding, Inspection	$18,539.44
Interior - Flooring, Carpet, Hallways	$21,121.06
Sub Total	**$119,380.10**
2047 Fiscal Year	
Equipment - Domestic Hot Water Tank, 2017	$7,601.17
Equipment - HVAC, Heat Pump, Lobby	$11,401.76
Sub Total	**$19,002.93**
2048 Fiscal Year	
Equipment - Domestic Hot Water, Pump	$2,921.70
Equipment - Emergency Communication BDA	$26,295.30
Equipment - Fire Alarm	$58,434.00
Equipment - Fire Sprinkler, Main Pump Rebuild	$9,739.00

Sample Condominium

Annual Expenditure Detail

Sorted by Description

Equipment - Generator, Fuel Pump	$15,582.40
Equipment - HVAC Pumps, Condenser Water	$38,956.00
Equipment - HVAC, Boilers	$214,258.00
Equipment - HVAC, Smoke Control	$58,434.00
Equipment - HVAC, Unit Heater, Large	$5,843.40
Equipment - Office & Concierge	$4,869.50
Exterior - Awnings, Main Entry	$6,232.96
Exterior - Doors, Steel	$3,311.26
Exterior - Masonry, Major Repairs	$158,940.48
Exterior - Masonry, Minor Repairs	$19,478.00
Exterior - Terrace Railings	$165,563.00
Interior - Door, Vestibule	$4,869.50
Interior - Doors, Common	$6,281.66
Interior - Flooring, Vinyl	$6,719.91
Roof - Terraces	$57,265.32
Sub Total	**$863,995.39**
2049 Fiscal Year	
Equipment - Domestic Hot Water Tank, 2019	$7,985.98
Equipment - HVAC, Unit Heaters, Small	$2,196.14
Sub Total	**$10,182.12**
2050 Fiscal Year	
Equipment - Access Control, Keyfob System	$10,232.04
Equipment - Surveillance System	$10,232.04
Exterior - Cladding, Galvanized	$15,348.06
Sub Total	**$35,812.13**

Sample Condominium

Projections

Directed Cash Flow Calculation Method

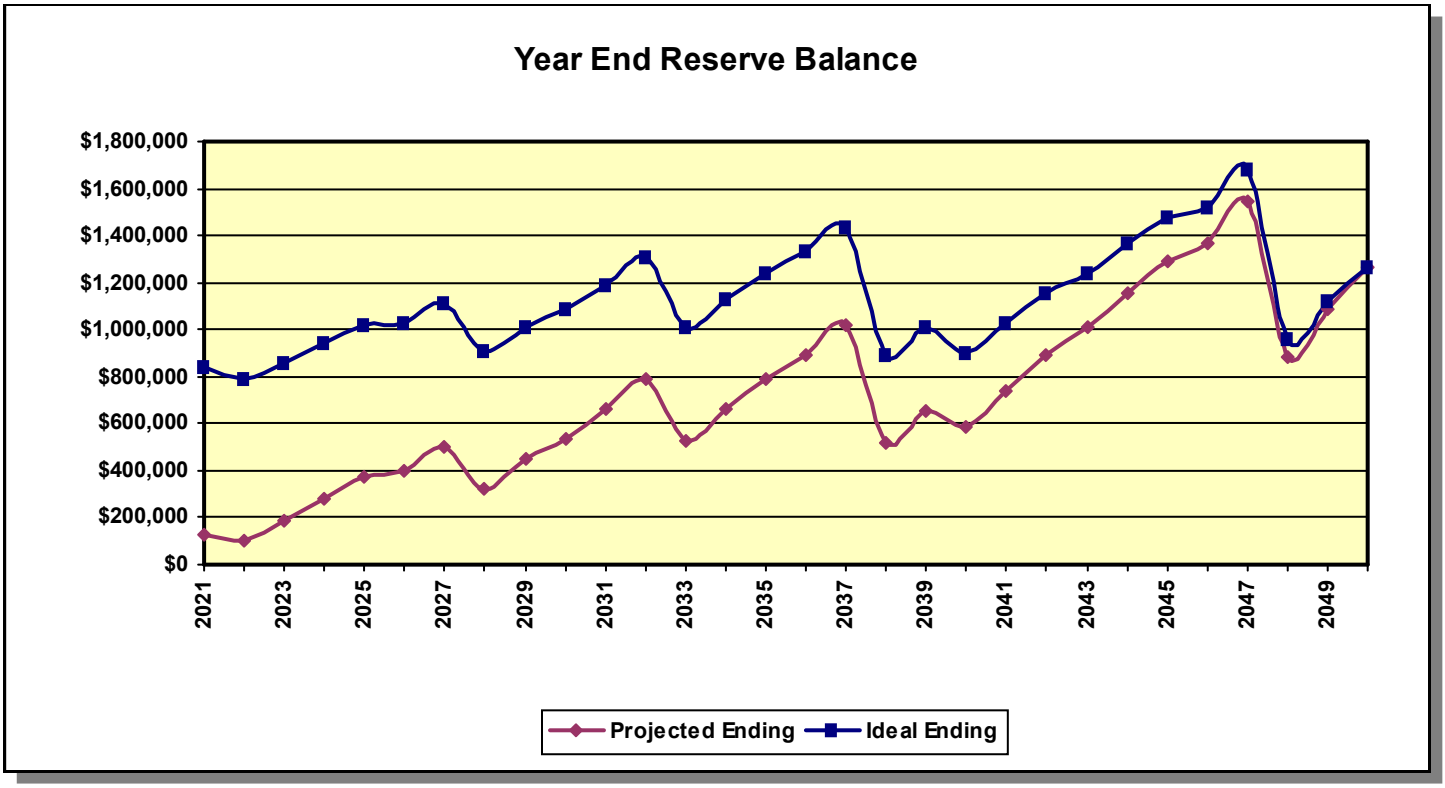
Fiscal Year	Beginning Balance	Member Contribution	Interest Contribution	Expenditures	Ending Balance	Fully Funded Ending Balance	Percent Funded
2021	$57,850	$103,000	$249	$34,000	$127,099	$839,394	15%
2022	$127,099	$105,575	$148	$133,250	$99,572	$791,109	13%
2023	$99,572	$108,214	$445	$22,326	$185,905	$860,887	22%
2024	$185,905	$110,920	$781	$14,000	$283,606	$943,167	30%
2025	$283,606	$113,693	$1,093	$23,842	$374,550	$1,019,028	37%
2026	$374,550	$116,535	$1,175	$92,654	$399,606	$1,025,790	39%
2027	$399,606	$119,448	$1,536	$16,236	$504,355	$1,115,376	45%
2028	$504,355	$122,435	$907	$301,629	$326,067	$909,153	36%
2029	$326,067	$125,495	$1,323	$6,214	$446,672	$1,011,767	44%
2030	$446,672	$128,633	$1,637	$38,715	$538,227	$1,084,795	50%
2031	$538,227	$131,849	$2,054	$12,801	$659,328	$1,189,222	55%
2032	$659,328	$135,145	$2,501	$7,873	$789,101	$1,303,734	61%
2033	$789,101	$138,524	$1,571	$404,307	$524,889	$1,009,287	52%
2034	$524,889	$141,987	$2,054	$4,136	$664,794	$1,132,455	59%
2035	$664,794	$145,536	$2,478	$24,727	$788,081	$1,239,521	64%
2036	$788,081	$149,175	$2,843	$45,466	$894,632	$1,329,990	67%
2037	$894,632	$152,904	$3,264	$33,550	$1,017,251	$1,437,988	71%
2038	$1,017,251	$156,727	$1,509	$658,518	$516,968	$892,366	58%
2039	$516,968	$160,645	$1,994	$21,835	$657,772	$1,008,123	65%
2040	$657,772	$164,661	$1,727	$240,597	$583,563	$898,729	65%
2041	$583,563	$168,777	$2,253	$18,189	$736,405	$1,024,393	72%
2042	$736,405	$172,997	$2,800	$16,796	$895,406	$1,157,729	77%
2043	$895,406	$177,322	$3,180	$69,465	$1,006,443	$1,241,928	81%
2044	$1,006,443	$181,755	$3,693	$36,175	$1,155,716	$1,366,595	85%
2045	$1,155,716	$186,299	$4,147	$58,060	$1,288,102	$1,474,568	87%
2046	$1,288,102	$190,956	$4,404	$119,380	$1,364,082	$1,523,879	90%
2047	$1,364,082	$195,730	$5,030	$19,003	$1,545,839	$1,683,858	92%
2048	$1,545,839	$200,623	$2,712	$863,995	$885,179	$959,284	92%
2049	$885,179	$205,639	$3,398	$10,182	$1,084,034	$1,121,647	97%
2050	$1,084,034	$210,780	$4,013	$35,812	$1,263,015	$1,264,738	100%

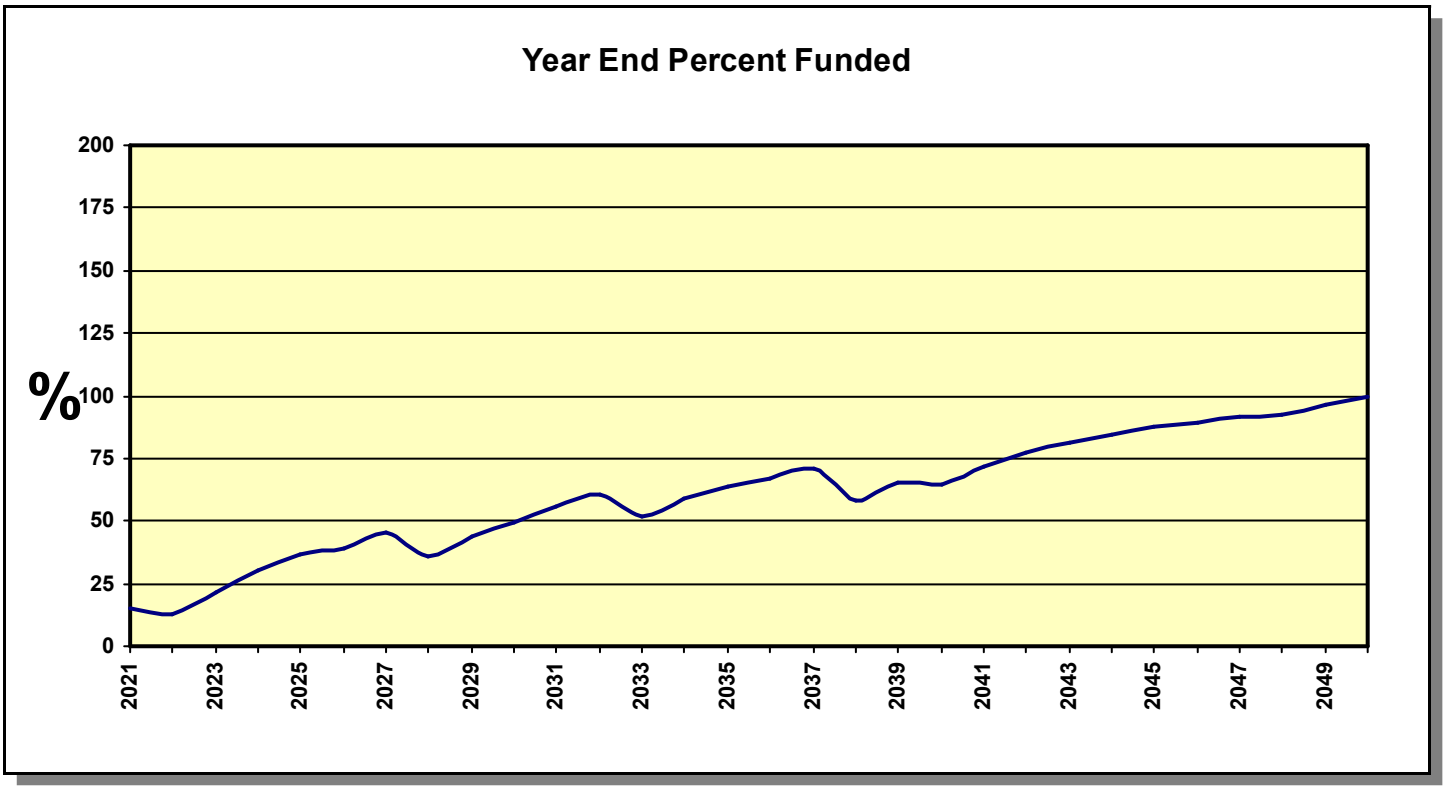
NOTE: In some cases, the projected Ending Balance may exceed the Fully Funded Ending Balance in years following high Expenditures. This is a result of the provision for contingency in this analysis, which in these projections is never expended. The contingency is continually adjusted according to need and any excess is redistributed among all components included.

Sample Condominium

Projection Charts

Directed Cash Flow Calculation Method

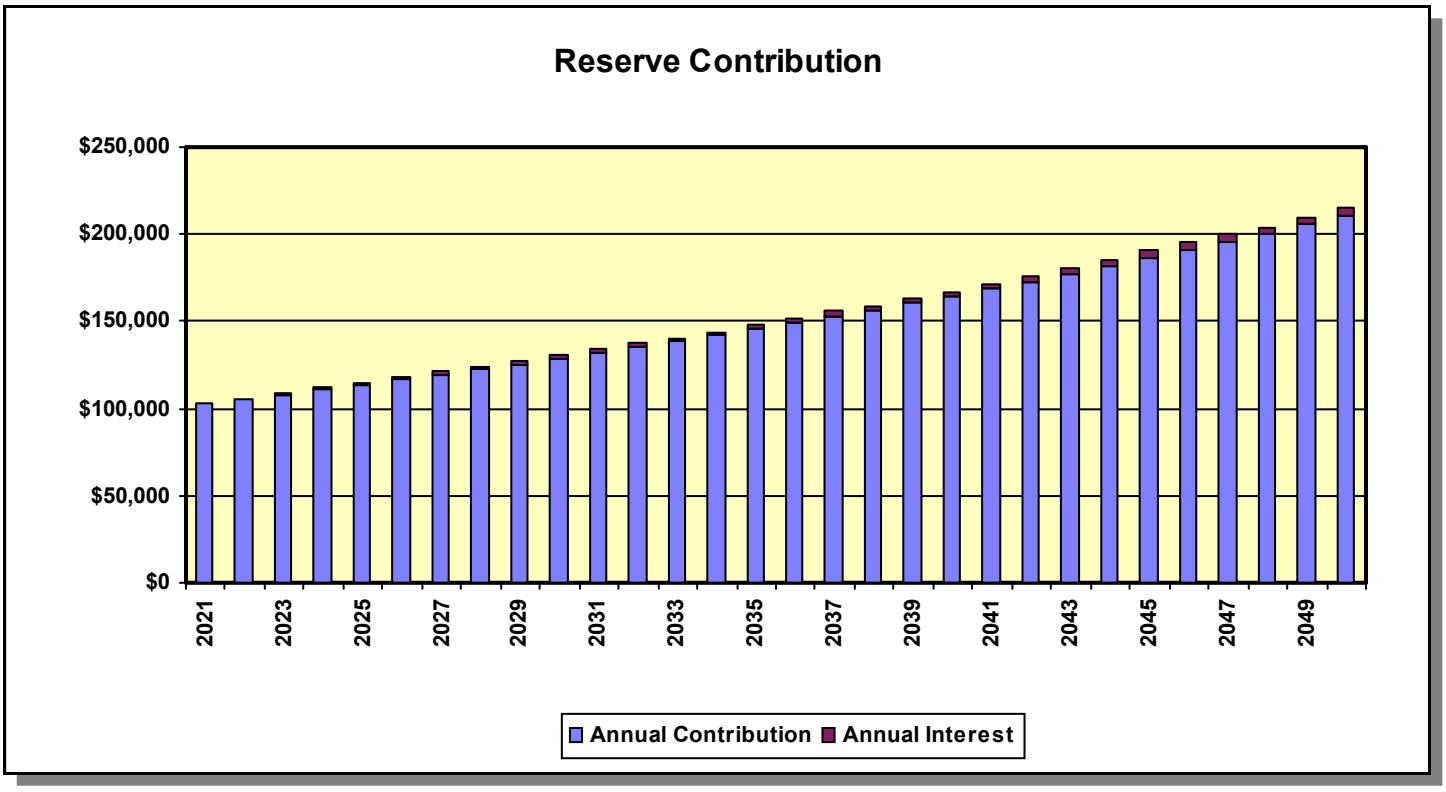


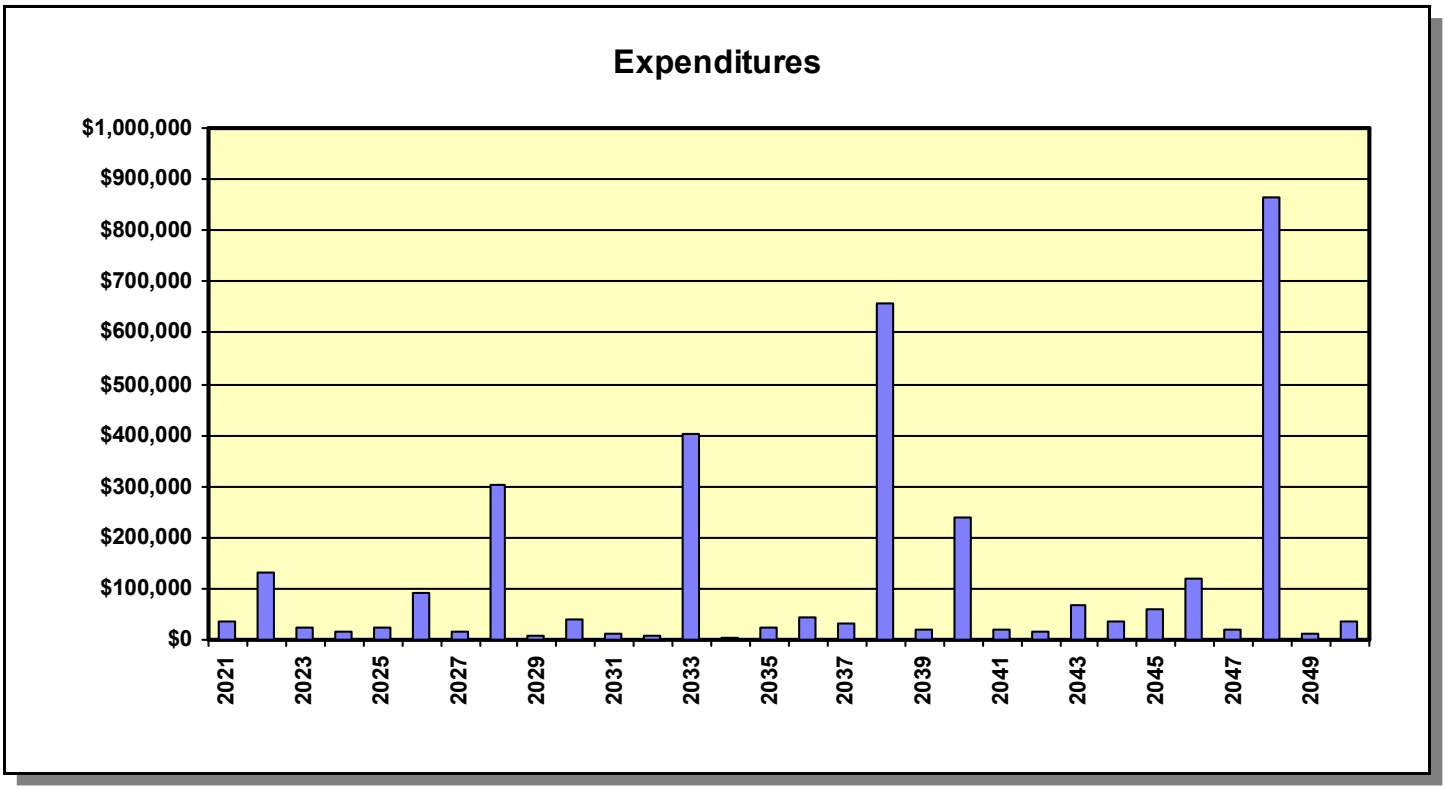


Sample Condominium

Projection Charts

Directed Cash Flow Calculation Method





Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Roof - General Life Extension Measures

		One Time Replacement	
Category	010 Roof	Quantity	1 extension
Photo Date	January 2021	Unit Cost	$4,000.000
		% of Replacement	100.00%
		Current Cost	$4,000.00
Placed In Service	01/20	Future Cost	$0.00
Useful Life	1		
		Assigned Reserves at FYB	$4,000.00
Remaining Life	0	Monthly Member Contribution	$0.00
Replacement Year	2021	Monthly Interest Contribution	$0.00
		Total Monthly Contribution	$0.00

Comments:

Component budget covers allowance for one-time life extension measures for original EPDM (ethylene propylene diene terpolymer) membrane roof. Original roof is in generally good condition. Patches noted on some roof areas. Some recent repairs at parapet wall caps have been needed, per service contractor. Additional areas are in need of seam reinforcement and localized replacement. Additional roof extension measure components can be added in future reserve study updates as roof gets closer to the end of useful life.

Reinforcement of all membrane seams/flashings and regular preventative maintenance can extend the roof life up to 15 years with consistent followup inspections.

If the roof is not leaking, a roof life extension can also be obtained by applying a full restoration and coating system with a 10-20 year warranty. Coatings are only effective if current roof is not leaking. Cost for this option would be about $7.00 per sq. ft. on buildings with good access. Cost on high rise buildings will be higher.

Roofing contractor: PBI Construction, Brighton, MA
Rick Philbrick 617-590-6355
Per Mr. Philbrick, roof needs some repairs this year including removing a section at rear parapet wall where insulation is degraded by leaking. Budget for 2021 repairs is about $3000 for what is known to date. Regular annual preventative maintenance should allow roof to last beyond its 20 year typical life.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Roof - Gutters

Category	010 Roof	Quantity	1 total
Photo Date	January 2021	Unit Cost	$6,000.000
		% of Replacement	100.00%
		Current Cost	$6,000.00
Placed In Service	01/08	Future Cost	$9,129.71
Useful Life	30		
		Assigned Reserves at FYB	$0.00
Remaining Life	17	Monthly Member Contribution	$13.72
Replacement Year	2038	Monthly Interest Contribution	$0.03
		Total Monthly Contribution	$13.75

Comments:

Component budget covers gutters and downspouts installed along front cornice and roof mechanical penthouses. Gutters and leaders are galvanized steel. Gutters and downspouts were in good condition during site visit.

115	ln. ft. 6" gutter	@	$25.00	=	$2,875.00
125	ln. ft. downspouts	@	$25.00	=	$3,125.00
			TOTAL	=	$6,000.00

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Roof - Membrane

Category	010 Roof	Quantity	4,570 sq. ft.
Photo Date	January 2021	Unit Cost	$20.000
		% of Replacement	100.00%
		Current Cost	$91,400.00
Placed In Service	01/08	Future Cost	$122,922.84
Useful Life	20		
Adjustment	+5	Assigned Reserves at FYB	$0.00
Remaining Life	12	Monthly Member Contribution	$281.62
Replacement Year	2033	Monthly Interest Contribution	$0.57
		Total Monthly Contribution	$282.19

Comments:

Component budget covers EPDM membrane roofs on building. EPDM is an extremely durable synthetic rubber roofing membrane (ethylene propylene diene terpolymer) widely used in low-slope ("flat" roof) buildings.

Roof is original to construction. Some recent repairs at parapet walls have been needed, per service contractor Rick Philbrick of PBI Construction. Roof membrane generally appeared to be in good condition at site visit. Several patches noted. Remaining life extended based on separate roof life extension component being implemented in 2021.

The roof should be monitored/visually inspected twice a year (before and after winter). Any noted issues/damage should be addressed immediately to avoid further damage to the roofing system and/or interior of the building. With careful maintenance, the life of EPDM roofs can typically be extended beyond 20 years. If the roofing system becomes damaged or leaking issues occur, the remaining life of the roof should be adjusted accordingly.

There are several options for roof replacement. If insulation under membrane is dry, then an overlay coverboard and new membrane could be installed for $6 - $8 per sq. ft. A full restoration coating could also be installed at lower cost. An entire re-roof with removal of existing materials, structural deck inspection and new insulation/membrane would be be about $13 - $15 per sq. ft. Pricing will vary with roof geometry and site access complexity. Higher cost used for this relatively small roof with challenging access. Pricing for complete replacement option in future is currently listed.

In order to ensure a high quality installation, the client may wish to obtain the services of an independent roofing consultant to work with the client and the roofing contractor providing installation. Consultants are available for the preparation of installation specifications and, if desired, to work with the contractor during the installation process. Fees for these services vary based on the size of the project and detail required by the client, and have not been included in the cost used for this component. Should the client desire, a provision for a consultant can be incorporated into this analysis.

Roof - Terraces

Category	010 Roof	Quantity	980 sq. ft.
Photo Date	January 2021	Unit Cost	$30.000
		% of Replacement	100.00%
		Current Cost	$29,400.00
Placed In Service	01/08	Future Cost	$34,947.36
Useful Life	20		
		Assigned Reserves at FYB	$0.00
Remaining Life	7	Monthly Member Contribution	$147.54
Replacement Year	2028	Monthly Interest Contribution	$0.30
		Total Monthly Contribution	$147.84

Comments:

Component budget covers replacement of EPDM (ethylene propylene diene terpolymer) membrane roofs under roof terraces on 7th, 8th, and 9th floors. No access to roofs or construction details were available at site visit. No issues reported.

Construction materials in terrace areas appear to be: composite or wood decking, wood sleepers to support decking, membrane, insulation boards, and roof deck.

Useful life based on industry averages. Cost includes estimate for removal and reinstallaton of deck. Practicality of removing decking screws and reinstalling deck boards should be verified. Screws are typically difficult to remove, depending on type. If not practical, roof deck will need to be replaced at higher cost.

See additional general roofing comments under "Roof - Membrane".

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Awnings, Main Entry

Category	020 Building Exterior	Quantity	4 awnings
Photo Date	January 2021	Unit Cost	$800.000
		% of Replacement	100.00%
		Current Cost	$3,200.00
Placed In Service	01/18	Future Cost	$3,803.79
Useful Life	10		
		Assigned Reserves at FYB	$0.00
Remaining Life	7	Monthly Member Contribution	$16.06
Replacement Year	2028	Monthly Interest Contribution	$0.03
		Total Monthly Contribution	$16.09

Comments:

Component budget covers replacement of awnings over main entry door and adjacent windows. Awnings were in good condition at site visit. The actual date this component was placed into service is not available. For budgeting purposes, this date has been estimated based on its condition at our most recent site visit.

Exterior - Cladding, Galvanized

Category	020 Building Exterior	Quantity	1 inspection & repair
Photo Date	January 2021	Unit Cost	$7,500.000
		% of Replacement	100.00%
		Current Cost	$7,500.00
Placed In Service	01/20	Future Cost	$8,278.60
Useful Life	5		
		Assigned Reserves at FYB	$0.00
Remaining Life	4	Monthly Member Contribution	$63.84
Replacement Year	2025	Monthly Interest Contribution	$0.13
		Total Monthly Contribution	$63.97

Comments:

Component budget covers galvanized steel standing seam roofs, parapet caps, and wall panels. Unpainted galvanized steel appeared to be in good condition at site visit. No leaking issues reported.

Galvanized steel areas should be checked periodically for brown staining as described in Note Pad section. White spatter pattern should be checked also. Useful life of 40+ years assumes that any brown staining will not reduce service life. Full replacement of standing seam roofs, siding, and parapet wall caps is currently unfunded.

Component covers detailed inspection and minor repairs on a five year basis. Repair details can be found on the American Galvanizers Association website. As infrastructure ages, allowance should be adjusted in future reserve study updates.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Cladding, Inspection

Category	020 Building Exterior	Quantity	1 total
Photo Date	January 2021	Unit Cost	$10,000.000
		% of Replacement	100.00%
		Current Cost	$10,000.00
Placed In Service	01/15	Future Cost	$11,314.08
Useful Life	5		
		Assigned Reserves at FYB	$10,000.00
Remaining Life	0	Monthly Member Contribution	$68.82
Replacement Year	2021	Monthly Interest Contribution	$0.14
		Total Monthly Contribution	$68.96

Comments:

This component budget covers inspections of entire building exterior to comply with City of Boston Façade Ordinance 9-9.12. Inspections are required every 5 years for buildings more than 70 feet tall. Building is about 115 feet tall. More costly inspections are required for buildings greater than 125 feet tall. Cost per similar building in Boston. Date of last inspection is currently unknown.

Repairs are covered by separate component.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Door, Glass

Category	020 Building Exterior	Quantity	1 door
Photo Date	January 2021	Unit Cost	$3,000.000
		% of Replacement	100.00%
		Current Cost	$3,000.00
Placed In Service	01/08	Future Cost	$3,311.44
Useful Life	15		
Adjustment	+2	Assigned Reserves at FYB	$0.00
Remaining Life	4	Monthly Member Contribution	$25.54
Replacement Year	2025	Monthly Interest Contribution	$0.05
		Total Monthly Contribution	$25.59

Comments:

Component budget covers exterior aluminum frame full view commercial main entry door. Door was in good condition during site visit with no issues reported by client. Door is protected by awning and recessed into building. The remaining life of this component has been extended due to its condition at our most recent site visit.

Door will need replacement of wear items (hinges, handles, etc.) to achieve useful life.

Sample Condominium

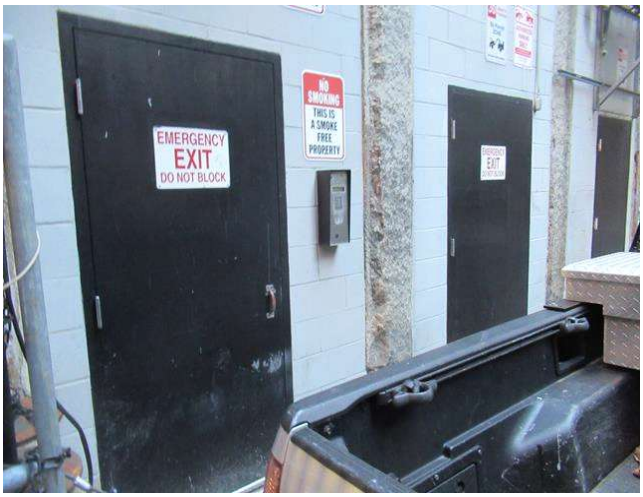
Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Doors, Steel

Category	020 Building Exterior	Quantity	5 doors
Photo Date	January 2021	Unit Cost	$1,700.000
		% of Replacement	20.00%
		Current Cost	$1,700.00
Placed In Service	01/23	Future Cost	$2,020.77
Useful Life	5		
		Assigned Reserves at FYB	$0.00
Remaining Life	7	Monthly Member Contribution	$8.53
Replacement Year	2028	Monthly Interest Contribution	$0.02
		Total Monthly Contribution	$8.55

Comments:



Component budget covers periodic replacement of exterior flush steel doors for building rear egress and roof access starting in 2028. Doors were in good condition during site visit. As infrastructure ages, allowance should be adjusted in future reserve study updates.

Doors will need periodic painting and replacement of wear items (hinges, handles, etc.) to achieve useful life. Consistent painting is critical to prevent corrosion. Several of these doors receive low use.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Lighting

Category	020 Building Exterior	Quantity	1 total
Photo Date	January 2021	Unit Cost	$4,050.000
		% of Replacement	100.00%
		Current Cost	$4,050.00
Placed In Service	01/08	Future Cost	$5,446.80
Useful Life	25		
		Assigned Reserves at FYB	$0.00
Remaining Life	12	Monthly Member Contribution	$12.48
Replacement Year	2033	Monthly Interest Contribution	$0.02
		Total Monthly Contribution	$12.50

Comments:

Component budget covers wall and ceiling mounted exterior lighting. Lighting was in good condition at site visit. Roof terraces were not accessible at site visit. Quantities are estimated for these areas based on photos taken.

5	LED wall lights	@	$250.00	=	$1,250.00
4	recessed lights	@	$200.00	=	$800.00
6	terrace wall lights	@	$200.00	=	$1,200.00
4	terrace recessed lights	@	$200.00	=	$800.00
			TOTAL	=	$4,050.00

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Masonry, Major Repairs

Category	020 Building Exterior	Quantity	27,200 sq. ft.
Photo Date	January 2021	Unit Cost	$30.000
		% of Replacement	10.00%
		Current Cost	$81,600.00
Placed In Service	01/33	Future Cost	$158,940.48
Useful Life	15		
		Assigned Reserves at FYB	$0.00
Remaining Life	27	Monthly Member Contribution	$129.57
Replacement Year	2048	Monthly Interest Contribution	$0.26
		Total Monthly Contribution	$129.84

Comments:

Component budget covers the recommended inspection and major masonry repairs starting in 2048 after initial 25 year inspection and repair in 2033. Annual inspections should guide the frequency and extent of major and minor repairs. A percentage of masonry is expected to be repaired every 15 years. Component includes any repairs required for cast stone cornices.

See additional notes under "Exterior - Masonry Major Repairs, Initial".

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Masonry, Major Repairs, Initial

Category	020 Building Exterior
Photo Date	January 2021
Placed In Service	01/08
Useful Life	25
Remaining Life	12
Replacement Year	2033

One Time Replacement

Quantity	27,200 sq. ft.
Unit Cost	$30.000
% of Replacement	10.00%
Current Cost	$81,600.00
Future Cost	$109,742.93
Assigned Reserves at FYB	$0.00
Monthly Member Contribution	$251.43
Monthly Interest Contribution	$0.51
Total Monthly Contribution	$251.93

Comments:

Component budget covers the initial recommended major masonry repairs after approximately 25 years. A percentage of granite and brick areas are expected to be repaired at that time. Component includes any repairs required for cast stone cornices.

Repointing entire building would be approximately $30 per sq. ft., including staging. Total cost to repoint building at $30/sq. ft. is about $800,000. It is anticipated that a percentage of masonry will need to be addressed at 25 years. As infrastructure ages, percentage allowance should be adjusted in future reserve study updates.

Masons typically recommend annual maintenance component and major inspection/repair every 15-25 years. Minor repairs are covered by separate component.

Over time, some repointing will be required, but not likely the entire building unless mortar fails due to poor initial installation or incorrect mortar type. Brick repointing represents a significant potential liability to a client. As the extent and nature of this liability are largely indeterminable, full budgeting for this component has been excluded at this time.

In the past, our firm has coordinated the evaluation of exteriors by licensed professionals. Typically, these firms can provide inspections, testing, calculations and documentation of brick. The client may wish to pursue this type of evaluation.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Masonry, Minor Repairs

Category	020 Building Exterior	Quantity	1 total
Photo Date	January 2021	Unit Cost	$10,000.000
		% of Replacement	100.00%
		Current Cost	$10,000.00
Placed In Service	01/21	Future Cost	$10,768.91
Useful Life	3		
		Assigned Reserves at FYB	$0.00
Remaining Life	3	Monthly Member Contribution	$112.32
Replacement Year	2024	Monthly Interest Contribution	$0.23
		Total Monthly Contribution	$112.55

Comments:

Component budget covers minor masonry repairs starting in 2024. Repairs typically include repointing damaged areas and replacing sealants to maintain water resistance. Cleaning and sealing brick surface in targeted areas may also be required. Major repairs are covered by separate component.

As infrastructure ages, allowance should be adjusted in future reserve study updates.

Exterior contractor: PBI Construction, Brighton, MA
Rick Philbrick 617-590-6355

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Masonry, Minor Repairs, Initial

		One Time Replacement	
Category	020 Building Exterior	Quantity	1 allowance
Photo Date	January 2021	Unit Cost	$20,000.000
		% of Replacement	100.00%
		Current Cost	$20,000.00
Placed In Service	01/20	Future Cost	$0.00
Useful Life	1		
		Assigned Reserves at FYB	$20,000.00
Remaining Life	0	Monthly Member Contribution	$0.00
Replacement Year	2021	Monthly Interest Contribution	$0.00
		Total Monthly Contribution	$0.00

Comments:

Component budget covers initial sealant and minor masonry repairs. Repairs typically include repointing damaged areas and sealing penetrations. Cleaning and sealing brick surface may also be required. Ongoing minor repairs are covered by separate component.

Exterior contractor: PBI Construction, Brighton, MA
Rick Philbrick 617-590-6355
Per Mr. Philbrick, recent examination of leak in 8th floor unit revealed the need to caulk penetrations, windows, control joints, etc. on the building. Mr. Philbrick is preparing a proposal to address these sealant issues. Budget for initial minor repairs can be adjusted once the proposal is received.

Exterior - Terrace Decks

Category	020 Building Exterior	Quantity	980 sq. ft.
Photo Date	January 2021	Unit Cost	$40.000
		% of Replacement	100.00%
		Current Cost	$39,200.00
Placed In Service	01/08	Future Cost	$52,719.64
Useful Life	25		
		Assigned Reserves at FYB	$0.00
Remaining Life	12	Monthly Member Contribution	$120.78
Replacement Year	2033	Monthly Interest Contribution	$0.24
		Total Monthly Contribution	$121.03

Comments:

Component budget covers exterior terrace decks with composite or wood deck boards. Monolithic decks are non-structural and installed on sleepers over membrane roof. Terrace decks were not accessible during site visit. Decks have various types of decking installed.

It appears that 7th floor terrace deck boards are installed without required spacing between them. This will impede drying of membrane and could accelerate failure. 9th floor terrace deck boards appear to be properly spaced. 8th floor decks could not be observed from the roof above. Decks appear to be framed monolithically and tight to the edge of the membrane perimeter. It is recommended that monolithic decks be replaced with smaller deck sections that can be lifted up to inspect membrane and clean debris under deck boards. Proper spacing between edge of decks and vulnerable membranes should be maintained.

Unit owners should be discouraged from placing carpets on terrace decks. Carpets impede drying of membrane.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Terrace Railings

Category	020 Building Exterior	Quantity	170 lin. ft.
Photo Date	January 2021	Unit Cost	$500.000
		% of Replacement	100.00%
		Current Cost	$85,000.00
Placed In Service	01/08	Future Cost	$165,563.00
Useful Life	40		
		Assigned Reserves at FYB	$0.00
Remaining Life	27	Monthly Member Contribution	$134.97
Replacement Year	2048	Monthly Interest Contribution	$0.27
		Total Monthly Contribution	$135.25

Comments:

Component budget covers glass railings located at unit roof terraces. Railings could not be directly accessed, but appeared to be in good condition as observed from ground and roof at site visit.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Windows

Category	020 Building Exterior	Quantity	255 sq. ft.
Photo Date	January 2021	Unit Cost	$35.000
		% of Replacement	100.00%
		Current Cost	$8,925.00
Placed In Service	01/08	Future Cost	$15,365.02
Useful Life	35		
		Assigned Reserves at FYB	$0.00
Remaining Life	22	Monthly Member Contribution	$16.57
Replacement Year	2043	Monthly Interest Contribution	$0.03
		Total Monthly Contribution	$16.61

Comments:

Component budget covers exterior commercial aluminum-framed common store front windows adjoining main entrance. Windows were in good condition during site visit and no problems were reported by client.

Interior - Door, Vestibule

Category	030 Building Interior	Quantity	1 door
Photo Date	January 2021	Unit Cost	$2,500.000
		% of Replacement	100.00%
		Current Cost	$2,500.00
Placed In Service	01/08	Future Cost	$2,971.71
Useful Life	20		
		Assigned Reserves at FYB	$0.00
Remaining Life	7	Monthly Member Contribution	$12.55
Replacement Year	2028	Monthly Interest Contribution	$0.02
		Total Monthly Contribution	$12.57

Comments:

Component budget covers interior vestibule full glass aluminum door into main lobby. Door was in good condition at site visit.

With proper maintenance/repairs to hinges, handles, etc. doors may exceed expected useful life.

Sample Condominium

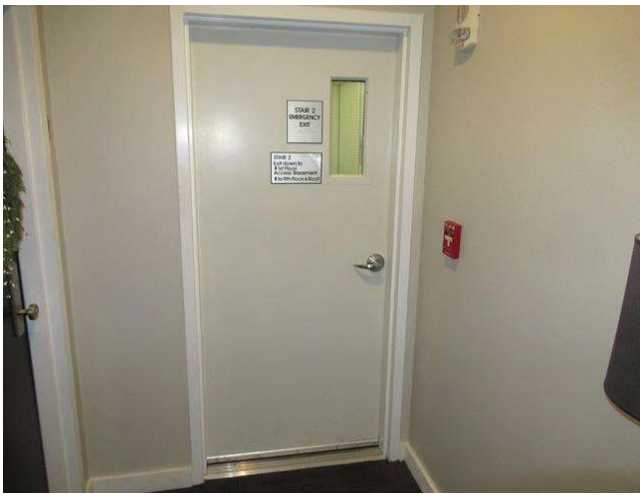
Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Doors, Common

Category	030 Building Interior	Quantity	43 doors
Photo Date	January 2021	Unit Cost	$1,500.000
		% of Replacement	5.00%
		Current Cost	$3,225.00
Placed In Service	01/28	Future Cost	$4,337.27
Useful Life	5		
		Assigned Reserves at FYB	$0.00
Remaining Life	12	Monthly Member Contribution	$9.94
Replacement Year	2033	Monthly Interest Contribution	$0.02
		Total Monthly Contribution	$9.96

Comments:



Component budget covers interior common steel doors in stairwells, hallways, closets, and mechanical rooms. Doors were in good condition at site visit. Door life will vary with usage. It is unlikely that all interior doors will be replaced at one time. There are approximately 48 doors in the building.

Allowance and interval for repairs and replacements should be adjusted over time to reflect aging of building. Current allowance is set at 5% every 5 years starting in 2033 (25 years after construction). With proper maintenance/repairs to hinges, handles, etc., doors may exceed expected useful life.

Interior - Flooring, Carpet, Hallways

Category	030 Building Interior	Quantity	2,170 sq. ft.
Photo Date	January 2021	Unit Cost	$5.250
		% of Replacement	100.00%
		Current Cost	$11,392.50
Placed In Service	01/16	Future Cost	$12,889.57
Useful Life	10		
		Assigned Reserves at FYB	$0.00
Remaining Life	5	Monthly Member Contribution	$78.40
Replacement Year	2026	Monthly Interest Contribution	$0.16
		Total Monthly Contribution	$78.56

Comments:

Component budget covers carpet tile flooring in unit hallways. Carpet tiles were installed in September 2016 at a cost of $10,000, per client, and were in good condition at site visit. Quantity includes 15% waste factor. Useful life of carpet tiles increased because soiled tiles can be replaced easily. Cost updated for inflation.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Flooring, Tile, Lobby

Category	030 Building Interior	Quantity	375 sq. ft.
Photo Date	January 2021	Unit Cost	$25.000
		% of Replacement	100.00%
		Current Cost	$9,375.00
Placed In Service	01/08	Future Cost	$12,608.33
Useful Life	25		
		Assigned Reserves at FYB	$0.00
Remaining Life	12	Monthly Member Contribution	$28.89
Replacement Year	2033	Monthly Interest Contribution	$0.06
		Total Monthly Contribution	$28.94

Comments:

Component budget covers stone tile in main lobby areas. Tile was in good condition. No loose or cracked tiles were observed. Cost for removal of existing tile is difficult to estimate. Cost of materials chosen to replace the current tile can also vary widely.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Flooring, Vinyl

Category	030 Building Interior	Quantity	300 sq. ft.
Photo Date	January 2021	Unit Cost	$11.500
		% of Replacement	100.00%
		Current Cost	$3,450.00
Placed In Service	01/08	Future Cost	$4,100.97
Useful Life	20		
		Assigned Reserves at FYB	$0.00
Remaining Life	7	Monthly Member Contribution	$17.31
Replacement Year	2028	Monthly Interest Contribution	$0.03
		Total Monthly Contribution	$17.35

Comments:

Component budget covers sheet vinyl flooring in stairwell vestbules and fire command center closet behind concierge desk. Vinyl was in good condition. Quantities include 15% waste factor.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Furnishings

Category	030 Building Interior	Quantity	1 allowance
Photo Date	January 2021	Unit Cost	$17,300.000
		% of Replacement	100.00%
		Current Cost	$17,300.00
Placed In Service	01/08	Future Cost	$23,266.58
Useful Life	25		
		Assigned Reserves at FYB	$0.00
Remaining Life	12	Monthly Member Contribution	$53.30
Replacement Year	2033	Monthly Interest Contribution	$0.11
		Total Monthly Contribution	$53.41

Comments:

Component budget covers allowance for replacement of furnishings in main lobby and mirrors in unit hallways. Furnishings were in good condition at site visit. Replacement furnishings may vary widely in price, based on selections. Wall artwork is currently unfunded.

8	mirror, elev. lobbies, floors 2-9	@	$350.00	=	$2,800.00
1	main lobby chest & table lamp	@	$2,000.00	=	$2,000.00
1	concierge desk	@	$7,500.00	=	$7,500.00
1	design consulting	@	$5,000.00	=	$5,000.00
			TOTAL	=	$17,300.00

Sample Condominium

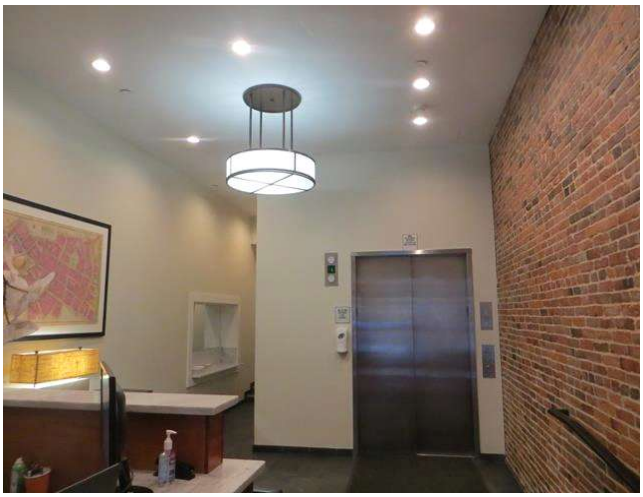
Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Lighting, 1st Floor

Category	030 Building Interior	Quantity	1 total
Photo Date	January 2021	Unit Cost	$7,125.000
		% of Replacement	100.00%
		Current Cost	$7,125.00
Placed In Service	01/08	Future Cost	$9,582.33
Useful Life	25		
		Assigned Reserves at FYB	$0.00
Remaining Life	12	Monthly Member Contribution	$21.95
Replacement Year	2033	Monthly Interest Contribution	$0.04
		Total Monthly Contribution	$22.00

Comments:



Component budget covers interior 1st floor lighting in main lobby area and mail room. Lighting was in good condition at site visit.

3	large ceiling lights	@	$1,000.00	=	$3,000.00
16	recessed lights	@	$200.00	=	$3,200.00
2	4' flourescent lights	@	$150.00	=	$300.00
5	exit lights	@	$125.00	=	$625.00
			TOTAL	=	$7,125.00

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Lighting, Basement & Stairwells

Category	030 Building Interior	Quantity	1 total
Photo Date	January 2021	Unit Cost	$9,650.000
		% of Replacement	100.00%
		Current Cost	$9,650.00
Placed In Service	01/08	Future Cost	$12,978.18
Useful Life	25		
		Assigned Reserves at FYB	$0.00
Remaining Life	12	Monthly Member Contribution	$29.73
Replacement Year	2033	Monthly Interest Contribution	$0.06
		Total Monthly Contribution	$29.79

Comments:

Component budget covers basement, stairwell, and stairwell vestibule lighting in building. Lighting was in good condition at site visit.

52	4' flourescent lights	@	$125.00	=	$6,500.00
24	2' flourescent lights	@	$100.00	=	$2,400.00
6	exit lights	@	$125.00	=	$750.00
			TOTAL	=	$9,650.00

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Lighting, Unit Hallways

Category	030 Building Interior	Quantity	1 total
Photo Date	January 2021	Unit Cost	$12,400.000
		% of Replacement	100.00%
		Current Cost	$12,400.00
Placed In Service	01/08	Future Cost	$16,676.62
Useful Life	25		
		Assigned Reserves at FYB	$0.00
Remaining Life	12	Monthly Member Contribution	$38.21
Replacement Year	2033	Monthly Interest Contribution	$0.08
		Total Monthly Contribution	$38.28

Comments:

Component budget covers unit hallway lighting on all floors. Lighting was in good condition at site visit.

52	recessed lights w/glass	@	$200.00	=	$10,400.00
16	exit lights	@	$125.00	=	$2,000.00
			TOTAL	=	$12,400.00

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Lobby Renovation

Category	030 Building Interior	Quantity	1 renovation
Photo Date	January 2021	Unit Cost	$10,000.000
		% of Replacement	100.00%
		Current Cost	$10,000.00
Placed In Service	01/08	Future Cost	$13,448.89
Useful Life	25		
		Assigned Reserves at FYB	$0.00
Remaining Life	12	Monthly Member Contribution	$30.81
Replacement Year	2033	Monthly Interest Contribution	$0.06
		Total Monthly Contribution	$30.88

Comments:

Component budget covers renovation of main lobby. Space was in good condition at site visit. Flooring, furnishings, and lighting are covered by separate components.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Signage Allowance

Category	030 Building Interior	Quantity	1 total
Photo Date	January 2021	Unit Cost	$5,000.000
		% of Replacement	100.00%
		Current Cost	$5,000.00
Placed In Service	01/08	Future Cost	$7,608.09
Useful Life	30		
		Assigned Reserves at FYB	$0.00
Remaining Life	17	Monthly Member Contribution	$11.44
Replacement Year	2038	Monthly Interest Contribution	$0.02
		Total Monthly Contribution	$11.46

Comments:

Component budget covers allowance for general signage throughout association.

Sample Condominium

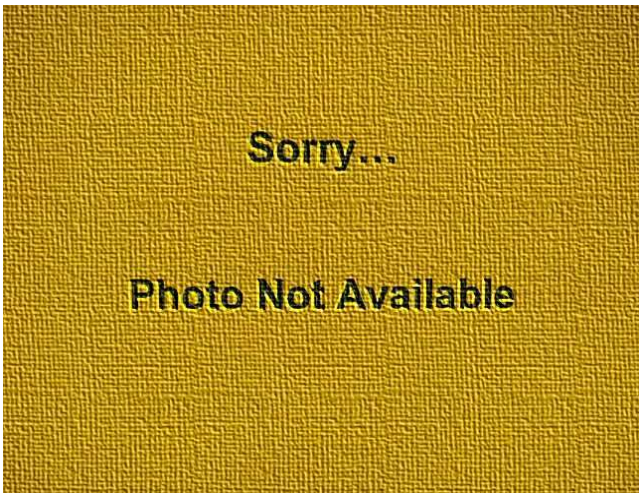
Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Access Control, Keyfob System

Category	090 Equipment	Quantity	1 system upgrade
Photo Date	January 2021	Unit Cost	$5,000.000
		% of Replacement	100.00%
		Current Cost	$5,000.00
Placed In Service	01/20	Future Cost	$5,519.06
Useful Life	5		
		Assigned Reserves at FYB	$0.00
Remaining Life	4	Monthly Member Contribution	$42.56
Replacement Year	2025	Monthly Interest Contribution	$0.09
		Total Monthly Contribution	$42.65

Comments:



Component budget covers periodic upgrade of keyfob lock system. Specific information not available. Allowance should be adjusted, based on association experience and needs, in future reserve study updates. No issues reported.

Equipment - Access Control, Main Entry Intercom

Category	090 Equipment	Quantity	1 access control
Photo Date	January 2021	Unit Cost	$5,000.000
		% of Replacement	100.00%
		Current Cost	$5,000.00
Placed In Service	01/08	Future Cost	$5,253.13
Useful Life	15		
		Assigned Reserves at FYB	$0.00
Remaining Life	2	Monthly Member Contribution	$83.36
Replacement Year	2023	Monthly Interest Contribution	$0.17
		Total Monthly Contribution	$83.53

Comments:

Component budget covers replacement of access control system at front entry door. No issues reported. Pricing assumes that wiring within buildings can be reused.

Equipment - Access Control, Rear Entry Intercom

Category	090 Equipment	Quantity	1 access control
Photo Date	January 2021	Unit Cost	$2,000.000
		% of Replacement	100.00%
		Current Cost	$2,000.00
Placed In Service	01/08	Future Cost	$2,101.25
Useful Life	15		
		Assigned Reserves at FYB	$0.00
Remaining Life	2	Monthly Member Contribution	$33.34
Replacement Year	2023	Monthly Interest Contribution	$0.07
		Total Monthly Contribution	$33.41

Comments:

Component budget covers replacement of access control system at rear entry door. No issues reported. Pricing assumes that wiring within buildings can be reused.

Equipment - Domestic Hot Water Tank, 2017

Category	090 Equipment	Quantity	1 tank
Photo Date	January 2021	Unit Cost	$4,000.000
		% of Replacement	100.00%
		Current Cost	$4,000.00
Placed In Service	01/17	Future Cost	$4,638.77
Useful Life	10		
		Assigned Reserves at FYB	$0.00
Remaining Life	6	Monthly Member Contribution	$23.18
Replacement Year	2027	Monthly Interest Contribution	$0.05
		Total Monthly Contribution	$23.23

Comments:

Component budget covers 119 gallon indirect domestic water heater tank installed in 2017. Useful life typically 10-15 years, depending on city water quality. Based on original tanks failing in 9 and 11 years, useful life set at 10 years.

Domestic hot water boilers heat water which circulates through heat exchanger pipes inside indirect water heater tanks. Pipes facilitate transfer of heat from boiler water to domestic hot water inside tank.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Domestic Hot Water Tank, 2019

Category	090 Equipment	Quantity	1 tank
Photo Date	January 2021	Unit Cost	$4,000.000
		% of Replacement	100.00%
		Current Cost	$4,000.00
Placed In Service	01/19	Future Cost	$4,873.61
Useful Life	10		
		Assigned Reserves at FYB	$0.00
Remaining Life	8	Monthly Member Contribution	$17.75
Replacement Year	2029	Monthly Interest Contribution	$0.03
		Total Monthly Contribution	$17.78

Comments:

Component budget covers 119 gallon indirect domestic water heater tank installed in 2019. Useful life typically 10-15 years, depending on city water quality. Based on original tanks failing in 9 and 11 years, useful life set at 10 years.

Domestic hot water boilers heat water which circulates through heat exchanger pipes inside indirect water heater tanks. Pipes facilitate transfer of heat from boiler water to domestic hot water inside tank.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Domestic Hot Water, Boiler, 2008

Category	090 Equipment	Quantity	1 boiler
Photo Date	January 2021	Unit Cost	$17,500.000
		% of Replacement	100.00%
		Current Cost	$17,500.00
Placed In Service	01/08	Future Cost	$19,799.64
Useful Life	18		
		Assigned Reserves at FYB	$0.00
Remaining Life	5	Monthly Member Contribution	$120.43
Replacement Year	2026	Monthly Interest Contribution	$0.24
		Total Monthly Contribution	$120.67

Comments:

Component budget covers Lochinvar CWN270PM standard-efficiency boiler installed at initial construction providing domestic hot water for building through indirect water heater tanks listed separately.

Service and preventative maintenance contractor:
Northeastern Mechanical, Inc., Canton, MA 617-799-1440, Brian Murphy, Account Executive.
Systems are under service contract. No current issues.

Equipment - Domestic Hot Water, Boiler, 2019

Category	090 Equipment	Quantity	1 boiler
Photo Date	January 2021	Unit Cost	$17,500.000
		% of Replacement	100.00%
		Current Cost	$17,500.00
Placed In Service	01/19	Future Cost	$25,978.85
Useful Life	18		
		Assigned Reserves at FYB	$0.00
Remaining Life	16	Monthly Member Contribution	$42.10
Replacement Year	2037	Monthly Interest Contribution	$0.08
		Total Monthly Contribution	$42.19

Comments:

Component budget covers Lochinvar CWN270PM standard-efficiency boiler replaced in 2019. Boiler provides domestic hot water for building through indirect water heater tanks listed separately.

Service and preventative maintenance contractor:
Northeastern Mechanical, Inc., Canton, MA 617-799-1440, Brian Murphy, Account Executive.
Systems are under service contract. No current issues.

Cost to replace is $15,000-$20,000.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Domestic Hot Water, Pump

Category	090 Equipment	Quantity	1 pump
Photo Date	January 2021	Unit Cost	$1,500.000
		% of Replacement	100.00%
		Current Cost	$1,500.00
Placed In Service	01/18	Future Cost	$1,783.03
Useful Life	10		
		Assigned Reserves at FYB	$0.00
Remaining Life	7	Monthly Member Contribution	$7.53
Replacement Year	2028	Monthly Interest Contribution	$0.01
		Total Monthly Contribution	$7.54

Comments:

Component budget covers 1/2 HP pump circulating hot water through the building. Pump was replaced in 2018, per service contractor.

Small in-line domestic hot water pump between boilers and storage tanks is unfunded.

Service and preventative maintenance contractor:
Northeastern Mechanical, Inc., Canton, MA 617-799-1440, Brian Murphy, Account Executive.
Systems are under service contract.

Sample Condominium

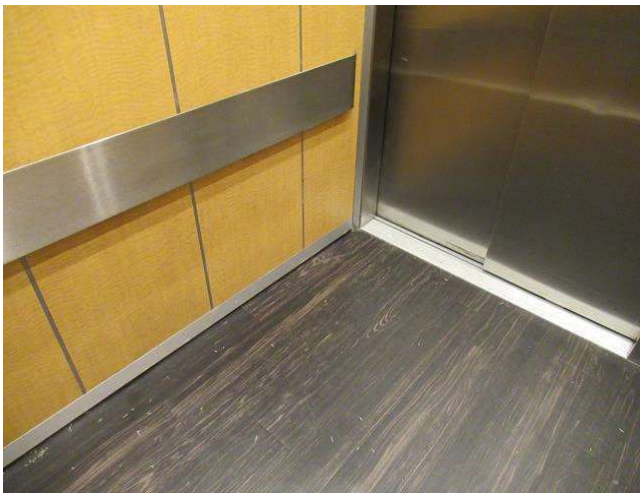
Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Elevator Cab Refurbish

Category	090 Equipment	Quantity	1 elevator cab
Photo Date	January 2021	Unit Cost	$20,000.000
		% of Replacement	100.00%
		Current Cost	$20,000.00
Placed In Service	01/08	Future Cost	$23,773.72
Useful Life	15		
Adjustment	+5	Assigned Reserves at FYB	$0.00
Remaining Life	7	Monthly Member Contribution	$100.37
Replacement Year	2028	Monthly Interest Contribution	$0.20
		Total Monthly Contribution	$100.57

Comments:



Component budget covers refurbishment of elevator cab. Cab was in good condition at site visit. Frequency of cab refurbishment is mainly an aesthetic decision. The remaining life of this component has been extended due to its condition at our most recent site visit.

Sample Condominium

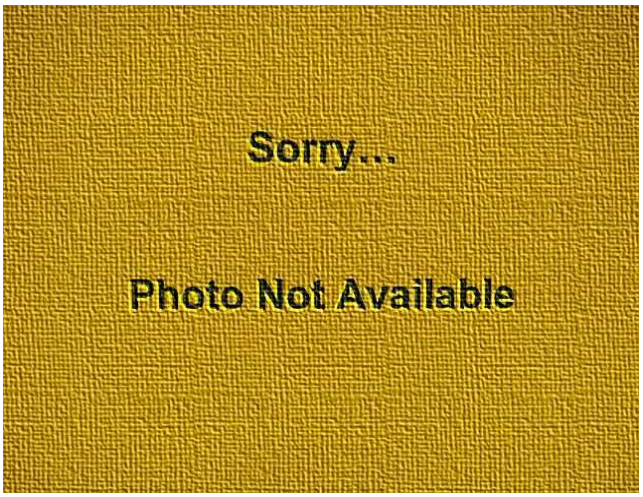
Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Elevator Machine Room, Minisplit

Category	090 Equipment	Quantity	1 minisplit
Photo Date	January 2021	Unit Cost	$27,500.000
		% of Replacement	100.00%
		Current Cost	$27,500.00
Placed In Service	01/08	Future Cost	$41,844.50
Useful Life	20		
Adjustment	+10	Assigned Reserves at FYB	$0.00
Remaining Life	17	Monthly Member Contribution	$62.90
Replacement Year	2038	Monthly Interest Contribution	$0.13
		Total Monthly Contribution	$63.02

Comments:



Currently there is no cooling of elevator machine room. Cooling is required by code and anticipated to be installed when elevator is modernized. Component budget covers ductless minisplit system that cools elevator machine room. Installation of minisplit before a modernization of the elevator may prolong current elevator machinery life. Cost of installation is high due to routing of refrigerant lines to roof from 8th floor. Cost per Northeast Mechanical proposal in 2016 ($25,000) with inflation added.

Equipment - Elevator Modernization

Category	090 Equipment	Quantity	1 elevator
Photo Date	January 2021	Unit Cost	$170,000.000
		% of Replacement	100.00%
		Current Cost	$170,000.00
Placed In Service	01/08	Future Cost	$258,675.10
Useful Life	30		
		Assigned Reserves at FYB	$0.00
Remaining Life	17	Monthly Member Contribution	$388.81
Replacement Year	2038	Monthly Interest Contribution	$0.78
		Total Monthly Contribution	$389.59

Comments:

Component budget covers modernization of machine room-less traction elevator. Elevator was functioning normally at site visit. Since there is no machine room, elevator mechanical machine is located at top of hoistway and was not accessible during site visit.

For residential elevators that typically receive average use, a 30 year useful life for modernization is the standard ARS uses. Some manufacturers are recommending shorter intervals. The reduced time to modernization is due to the lack of availability of parts from vendors that supply electronic/computer components such as circuit boards. Per manufacturers, these parts become obsolete and no longer available faster than mechanical parts. Association should decide what funding schedule it is comfortable with.

The first modernization typically consists of controls, control wiring, motor replacement, and new bearings for traction elevator machine. The machine itself will likely last 50 years.

Operational experience: no issues reported.

Equipment - Emergency Communication BDA

Category	090 Equipment	Quantity	1 system
Photo Date	January 2021	Unit Cost	$13,500.000
		% of Replacement	100.00%
		Current Cost	$13,500.00
Placed In Service	01/08	Future Cost	$16,047.26
Useful Life	20		
		Assigned Reserves at FYB	$0.00
Remaining Life	7	Monthly Member Contribution	$67.75
Replacement Year	2028	Monthly Interest Contribution	$0.14
		Total Monthly Contribution	$67.88

Comments:

Component budget covers bidirectional antenna (BDA) system for emergency responder communication. No issues reported. Antenna is original, per client. Price per similar association.

Battery replacement every 3-4 years will cost approximately $1000 and should be funded from operations.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Fire Alarm

Category	090 Equipment	Quantity	1 fire alarm
Photo Date	January 2021	Unit Cost	$30,000.000
		% of Replacement	100.00%
		Current Cost	$30,000.00
Placed In Service	01/08	Future Cost	$35,660.57
Useful Life	20		
		Assigned Reserves at FYB	$0.00
Remaining Life	7	Monthly Member Contribution	$150.55
Replacement Year	2028	Monthly Interest Contribution	$0.30
		Total Monthly Contribution	$150.85

Comments:

Component budget covers main parts of fire alarm system. The fire alarm system is composed of main fire alarm panel, smoke control panel and fire annunciator. Component does not include re-wiring, pull stations, fire emergency lights, heat detectors, or horns. Replacement of peripheral devices is currently done on an as-needed basis. Funding for these devices can be added if desired.

Operational experience: No issues reported by client.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Fire Sprinkler, Jockey Pump

Category	090 Equipment	Quantity	1 pump
Photo Date	January 2021	Unit Cost	$3,000.000
		% of Replacement	100.00%
		Current Cost	$3,000.00
Placed In Service	01/08	Future Cost	$3,230.67
Useful Life	10		
Adjustment	+6	Assigned Reserves at FYB	$0.00
Remaining Life	3	Monthly Member Contribution	$33.70
Replacement Year	2024	Monthly Interest Contribution	$0.07
		Total Monthly Contribution	$33.76

Comments:

Component budget covers fire sprinkler jockey pump. Pump maintains wet sprinkler pipes at approximate target pressure to aid in sensing if a sprinkler head discharges. Jockey pump eliminates need for main fire pump to run to maintain system pressure. If sprinkler system has low leak/loss rate, pump may only run once a week.

Remaining life extended to reflect current satisfactory operation. Pump operates in a damp environment and replacement in near future should be expected.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Fire Sprinkler, Main Pump

Category	090 Equipment	Quantity	1 pump
Photo Date	January 2021	Unit Cost	$25,000.000
		% of Replacement	100.00%
		Current Cost	$25,000.00
Placed In Service	01/08	Future Cost	$38,040.46
Useful Life	30		
		Assigned Reserves at FYB	$0.00
Remaining Life	17	Monthly Member Contribution	$57.18
Replacement Year	2038	Monthly Interest Contribution	$0.12
		Total Monthly Contribution	$57.29

Comments:

Component budget covers replacement of 50-HP fire pump & controller. No issues reported. Useful life extended to reflect pump rebuild component listed separately.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Fire Sprinkler, Main Pump Rebuild

Category	090 Equipment	Quantity	1 pump rebuild
Photo Date	January 2021	Unit Cost	$5,000.000
		% of Replacement	100.00%
		Current Cost	$5,000.00
Placed In Service	01/08	Future Cost	$5,943.43
Useful Life	20		
		Assigned Reserves at FYB	$0.00
Remaining Life	7	Monthly Member Contribution	$25.09
Replacement Year	2028	Monthly Interest Contribution	$0.05
		Total Monthly Contribution	$25.14

Comments:

Component budget covers rebuild of 50-HP fire pump. No issues reported. Pump replacement component listed separately.

Equipment - Generator

Category	090 Equipment	Quantity	1 total
Photo Date	January 2021	Unit Cost	$120,000.000
		% of Replacement	100.00%
		Current Cost	$120,000.00
Placed In Service	01/08	Future Cost	$182,594.19
Useful Life	30		
		Assigned Reserves at FYB	$0.00
Remaining Life	17	Monthly Member Contribution	$274.45
Replacement Year	2038	Monthly Interest Contribution	$0.56
		Total Monthly Contribution	$275.01

Comments:

Component covers Cummins generator and peripheral equipment. Diesel-powered generator is rated at 200 kW. Generator was in good condition at site visit.

Service contractor: Power Products, Wakefield, MA, 781-779-5094
Operational experience: no major issues reported, per Ed Doherty, Customer Development-Generator Support Services. Generator has run for only 75 hours since installation. Per Cummins schedule, rebuild or major service occurs after 20,000 or more hours.

The useful life of this component assumes infrequent use. If long power outages occur, remaining life should be decreased and/or a rebuild component should be added in future reserve study updates.

Equipment - Generator, Fuel Pump

Category	090 Equipment	Quantity	1 pump
Photo Date	January 2021	Unit Cost	$8,000.000
		% of Replacement	100.00%
		Current Cost	$8,000.00
Placed In Service	01/08	Future Cost	$9,509.49
Useful Life	20		
		Assigned Reserves at FYB	$0.00
Remaining Life	7	Monthly Member Contribution	$40.15
Replacement Year	2028	Monthly Interest Contribution	$0.08
		Total Monthly Contribution	$40.23

Comments:

Component budget covers automatic fuel oil transfer pump and control panel. No reported operating issues. Area around pump and tank should be kept clear and not used for storage.

Equipment - Generator, Fuel Storage

Category	090 Equipment	Quantity	1 tank
Photo Date	January 2021	Unit Cost	$4,000.000
		% of Replacement	100.00%
		Current Cost	$4,000.00
Placed In Service	01/08	Future Cost	$6,886.29
Useful Life	35		
		Assigned Reserves at FYB	$0.00
Remaining Life	22	Monthly Member Contribution	$7.43
Replacement Year	2043	Monthly Interest Contribution	$0.01
		Total Monthly Contribution	$7.44

Comments:

Component covers 275 gallon diesel fuel storage tanks located in basement storage room. Steel tank holds fuel for backup generator. No major issues reported. Tank may be without cathodic protection, but fuel usage is low so introduction of water in tank with fuel deliveries should be low also. Cathodic protection should be considered. Useful life increased from 30 to 35 years to reflect low refill frequency.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - HVAC Pumps, Boiler Water

Category	090 Equipment	Quantity	2 pumps
Photo Date	January 2021	Unit Cost	$5,000.000
		% of Replacement	100.00%
		Current Cost	$10,000.00
Placed In Service	01/08	Future Cost	$10,506.25
Useful Life	15		
		Assigned Reserves at FYB	$0.00
Remaining Life	2	Monthly Member Contribution	$166.72
Replacement Year	2023	Monthly Interest Contribution	$0.34
		Total Monthly Contribution	$167.06

Comments:

Component budget covers (2) circulation pumps for boiler water. In winter, boiler water is fed into condenser water loop with valves that control the temperature of the condenser water to 68F. Condenser water circulates to unit heat pumps.

No issues reported by management. Motors and pumps appear original to construction. Remaining life extended to reflect current satisfactory operation near end of typical service life.

Service and preventative maintenance contractor:
Northeastern Mechanical, Inc., Canton, MA 617-799-1440, Brian Murphy, Account Executive.
Systems are under service contract.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - HVAC Pumps, Condenser Water

Category	090 Equipment	Quantity	2 pumps
Photo Date	January 2021	Unit Cost	$10,000.000
		% of Replacement	100.00%
		Current Cost	$20,000.00
Placed In Service	01/08	Future Cost	$23,773.72
Useful Life	20		
		Assigned Reserves at FYB	$0.00
Remaining Life	7	Monthly Member Contribution	$100.37
Replacement Year	2028	Monthly Interest Contribution	$0.20
		Total Monthly Contribution	$100.57

Comments:

Component budget covers (2) circulation pumps for condensor water loop supplying hot and cold water to unit and common heat pumps. No issues reported by management. Pumps and motors appear original to construction. Variable frequency drives (VFDs) are used for soft start of motors to extend pump & motor life. There is no controller so pumps operate at a constant speed/flow. Useful life for pumps extended to to account for VFDs.

Service and preventative maintenance contractor:
Northeastern Mechanical, Inc., Canton, MA 617-799-1440, Brian Murphy, Account Executive.
Systems are under service contract.

Equipment - HVAC, Boilers

Category	090 Equipment	Quantity	1 boiler replacement
Photo Date	January 2021	Unit Cost	$110,000.000
		% of Replacement	100.00%
		Current Cost	$110,000.00
Placed In Service	01/08	Future Cost	$130,755.43
Useful Life	20		
		Assigned Reserves at FYB	$0.00
Remaining Life	7	Monthly Member Contribution	$552.02
Replacement Year	2028	Monthly Interest Contribution	$1.12
		Total Monthly Contribution	$553.14

Comments:

Component budget covers (5), HydroTherm MultiTemp, standard-efficiency (80%) boilers installed at original construction. Boilers provide hot water for building space heating.

Service and preventative maintenance contractor:
Northeastern Mechanical, Inc., Canton, MA 617-799-1440, Brian Murphy, Account Executive.
Systems are under service contract.

Per Mr. Murphy, one of the boiler sections is defective. Unfortunately, boiler is obsolete and replacement castings are not available. Building has been operating on (4) boilers since 2015 with no problems. Remaining life is likely about 5-10 years. If another boiler fails, replacement will likely need to be accelerated.

Replacement of heat boilers with high (95%) efficiency units will likely cost about $100,000-$125,000. Cost can likely be reduced with rebates.

Replacement of both the domestic hot water boilers and heat boilers with a single high efficiency system should be considered.

Equipment - HVAC, Cooling Tower

Category	090 Equipment	Quantity	1 tower
Photo Date	January 2021	Unit Cost	$130,000.000
		% of Replacement	100.00%
		Current Cost	$130,000.00
Placed In Service	01/08	Future Cost	$133,250.00
Useful Life	18		
Adjustment	-4	Assigned Reserves at FYB	$22,165.05
Remaining Life	1	Monthly Member Contribution	$3,573.29
Replacement Year	2022	Monthly Interest Contribution	$10.38
		Total Monthly Contribution	$3,583.67

Comments:

Component budget covers replacement of cooling tower which provides chilled water for building cooling. Condenser water circulation pumps are a separate component.

Service and preventative maintenance contractor:
Northeastern Mechanical, Inc., Canton, MA 617-799-1440, Brian Murphy, Account Executive.
Systems are under service contract.

Operational experience: Tower was likely never cleaned or serviced until Northeastern Mechanical was brought on by Barkan Management in 2015. The top dampers on the tower are frozen in open position. There was no chemical water treatment prior to 2015. Chem-Aqua system was installed and is owned by association. Spray pump was replaced several years ago. Complete cooling tower replacement is recommended for this smaller size tower. Cooling capacity of tower is about 200 tons.

Ballpark cost to replace current tower is $105,000-115,000. For Boston, close to the salt water, it is recommended to add stainless steel cold water sumps and coated galvanized panels, blower wheels, hot water section for an additional $15,000-20,000.

Galvanized towers have typical life of 12 years. The current tower is 12 years old. With protective urethane coatings, life can be extended by about 5-7 years by minimizing corrosion. Useful life for assumed coated galvanized replacement

tower with stainless steel cold water sump used.

Equipment - HVAC, Cooling Tower, Water Treatmen

Category	090 Equipment	Quantity	1 system
Photo Date	January 2021	Unit Cost	$3,500.000
		% of Replacement	100.00%
		Current Cost	$3,500.00
Placed In Service	01/15	Future Cost	$4,371.02
Useful Life	15		
		Assigned Reserves at FYB	$0.00
Remaining Life	9	Monthly Member Contribution	$13.95
Replacement Year	2030	Monthly Interest Contribution	$0.03
		Total Monthly Contribution	$13.97

Comments:

Component budget covers replacement of cooling tower water treatment system. No issues reported.

Service and preventative maintenance contractor:
Northeastern Mechanical, Inc., Canton, MA 617-799-1440, Brian Murphy, Account Executive.
Systems are under service contract.

Operational experience: Tower was likely never cleaned or serviced until Northeastern Mechanical was brought on by Barkan Management in 2015. Chem-Aqua system was installed and is owned by association.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - HVAC, Heat Pump, Lobby

Category	090 Equipment	Quantity	1 heat pump
Photo Date	January 2021	Unit Cost	$6,000.000
		% of Replacement	100.00%
		Current Cost	$6,000.00
Placed In Service	01/17	Future Cost	$7,872.52
Useful Life	15		
		Assigned Reserves at FYB	$0.00
Remaining Life	11	Monthly Member Contribution	$19.96
Replacement Year	2032	Monthly Interest Contribution	$0.04
		Total Monthly Contribution	$20.00

Comments:

Component budget covers replacement of heat pump in wall behind concierge desk in main lobby. Heat pump was replaced by service contractor in 2017 at a cost of $5315. No current issues reported. Inflation added to current cost.

Service and preventative maintenance contractor:
Northeastern Mechanical, Inc., Canton, MA 617-799-1440, Brian Murphy, Account Executive.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - HVAC, RTU

Category	090 Equipment	Quantity	1 RTU
Photo Date	January 2021	Unit Cost	$43,000.000
		% of Replacement	100.00%
		Current Cost	$43,000.00
Placed In Service	01/08	Future Cost	$48,650.55
Useful Life	20		
Adjustment	-2	Assigned Reserves at FYB	$0.00
Remaining Life	5	Monthly Member Contribution	$295.91
Replacement Year	2026	Monthly Interest Contribution	$0.60
		Total Monthly Contribution	$296.50

Comments:

Component budget covers rooftop unit (RTU) providing heating and cooling for hallways. Unit also provides 100% ventilation/fresh air to building.

Service and preventative maintenance contractor:
Northeastern Mechanical, Inc., Canton, MA 617-799-1440, Brian Murphy, Account Executive.
Systems are under service contract. Ballpark replacement cost of RTU is $30,000 plus crane $12,000-15,000.

When NMI took over the building, they found the RTU for the building was down with broken belts and filters that had not been changed in a long time. They had to replace the gas heat exchanger as a result. Entire RTU is obsolete. NMI had to retrofit a new heat exchanger to the existing unit. Replacement as soon as budgeting allows, within no more than 5 years, is recommended.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - HVAC, Smoke Control

Category	090 Equipment	Quantity	6 fans
Photo Date	January 2021	Unit Cost	$5,000.000
		% of Replacement	100.00%
		Current Cost	$30,000.00
Placed In Service	01/08	Future Cost	$58,434.00
Useful Life	40		
		Assigned Reserves at FYB	$0.00
Remaining Life	27	Monthly Member Contribution	$47.64
Replacement Year	2048	Monthly Interest Contribution	$0.10
		Total Monthly Contribution	$47.74

Comments:

Component budget covers stairwell pressurization and exhaust fans for fire deparment smoke control. Quantity from smoke control panel in lobby office closet. Useful life reflects light use with intermittent operation.

Equipment - HVAC, Unit Heater, Large

Category	090 Equipment	Quantity	1 heater
Photo Date	January 2021	Unit Cost	$3,000.000
		% of Replacement	100.00%
		Current Cost	$3,000.00
Placed In Service	01/08	Future Cost	$3,566.06
Useful Life	20		
		Assigned Reserves at FYB	$0.00
Remaining Life	7	Monthly Member Contribution	$15.06
Replacement Year	2028	Monthly Interest Contribution	$0.03
		Total Monthly Contribution	$15.08

Comments:

Component budget covers replacement of unit heater located at bottom of stairwell adjacent to rear stairwell exit. No current issues reported.

Service and preventative maintenance contractor:
Northeastern Mechanical, Inc., Canton, MA 617-799-1440, Brian Murphy, Account Executive.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - HVAC, Unit Heaters, Small

Category	090 Equipment	Quantity	11 heaters
Photo Date	January 2021	Unit Cost	$1,000.000
		% of Replacement	10.00%
		Current Cost	$1,100.00
Placed In Service	01/21	Future Cost	$1,214.19
Useful Life	4		
		Assigned Reserves at FYB	$0.00
Remaining Life	4	Monthly Member Contribution	$9.36
Replacement Year	2025	Monthly Interest Contribution	$0.02
		Total Monthly Contribution	$9.38

Comments:

Component budget covers periodic replacement of electric unit heaters located in storeroom and stairwells. Several heater thermostats and one heater have been replaced by service contractor. No current issues reported. Quantity per service contractor.

Service and preventative maintenance contractor:
Northeastern Mechanical, Inc., Canton, MA 617-799-1440, Brian Murphy, Account Executive.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Mailboxes

Category	090 Equipment	Quantity	1 total
Photo Date	January 2021	Unit Cost	$3,400.000
		% of Replacement	100.00%
		Current Cost	$3,400.00
Placed In Service	01/08	Future Cost	$5,173.50
Useful Life	30		
		Assigned Reserves at FYB	$0.00
Remaining Life	17	Monthly Member Contribution	$7.78
Replacement Year	2038	Monthly Interest Contribution	$0.01
		Total Monthly Contribution	$7.79

Comments:

Component budget covers 25-door USPS-STD-4B+ horizontal recessed mailboxes in building rear hall. Mailboxes were in good condition at site visit.

2	25-door mailboxes	@	$1,500.00	=	$3,000.00
1	installation allowance	@	$400.00	=	$400.00
			TOTAL	=	$3,400.00

Sample Condominium

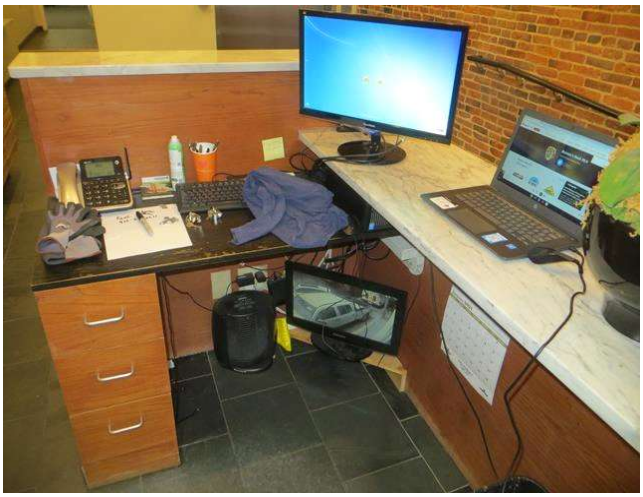
Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Office & Concierge

Category	090 Equipment	Quantity	1 allowance
Photo Date	January 2021	Unit Cost	$2,500.000
		% of Replacement	100.00%
		Current Cost	$2,500.00
Placed In Service	01/18	Future Cost	$2,626.56
Useful Life	5		
		Assigned Reserves at FYB	$0.00
Remaining Life	2	Monthly Member Contribution	$41.68
Replacement Year	2023	Monthly Interest Contribution	$0.08
		Total Monthly Contribution	$41.76

Comments:



Component budget covers periodic replacement allowance for office equipment used by concierge and building manager. No issues reported. Allowance should be revised, based on association experience, in future reserve study updates.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Pumps, Domestic Water Booster

Category	090 Equipment	Quantity	1 duplex system
Photo Date	January 2021	Unit Cost	$45,000.000
		% of Replacement	100.00%
		Current Cost	$45,000.00
Placed In Service	01/08	Future Cost	$68,472.82
Useful Life	30		
		Assigned Reserves at FYB	$0.00
Remaining Life	17	Monthly Member Contribution	$102.92
Replacement Year	2038	Monthly Interest Contribution	$0.21
		Total Monthly Contribution	$103.13

Comments:

Component budget covers Thrush domestic water duplex booster pumps. Pumps are powered by 7.5 hp motors. Cost from similar association includes vertical removable-bladder hydropneumatic pressure tank.

Control panels may also have individual components that need periodic replacement (electrical contactors are an example).

Service and preventative maintenance contractor:
Northeastern Mechanical, Inc., Canton, MA 617-799-1440, Brian Murphy, Account Executive.
Systems are under service contract. No current issues. System was repaired after water main break in street introduced debris into system. 30 year useful life expected from original installation.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Pumps, Sump

Category	090 Equipment	Quantity	1 pump system
Photo Date	January 2021	Unit Cost	$1,750.000
		% of Replacement	100.00%
		Current Cost	$1,750.00
Placed In Service	01/08	Future Cost	$1,838.59
Useful Life	15		
		Assigned Reserves at FYB	$0.00
Remaining Life	2	Monthly Member Contribution	$29.18
Replacement Year	2023	Monthly Interest Contribution	$0.06
		Total Monthly Contribution	$29.23

Comments:

Component budget covers pump in basement. No issues reported by management.

Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Surveillance System

Category	090 Equipment	Quantity	1 system upgrade
Photo Date	January 2021	Unit Cost	$5,000.000
		% of Replacement	100.00%
		Current Cost	$5,000.00
Placed In Service	01/20	Future Cost	$5,519.06
Useful Life	5		
		Assigned Reserves at FYB	$0.00
Remaining Life	4	Monthly Member Contribution	$42.56
Replacement Year	2025	Monthly Interest Contribution	$0.09
		Total Monthly Contribution	$42.65

Comments:

Component budget covers periodic upgrade of surveillance systems. Specific system information not available. Allowance should be adjusted, based on association experience and needs, in future reserve study updates.

Replacement is about $1200 per camera, including installation, for higher quality IP cameras. Useful life of cameras is about 5-7 years for outdoor and 10+ for indoor for new IP cameras that use CAT5 wiring with fewer connections. Most surveillance systems are replaced to improve picture quality and other performance measures rather than failure of the system.

Sample Condominium

Detail Report Index

Sample Condominium

Detail Report Index

Number of components included in this reserve analysis is 62.