

Sample Condominium Association

January 1, 2025 • Madison, USA

FULL RESERVE STUDY



Sample Condominium Association
Madison, USA

Dear Board of Directors of Sample Condominium Association:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Full Reserve Study* of Sample Condominium Association in Chicago, Illinois and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, January 1, 2025.

This *Full Reserve Study* exceeds the Association of Professional Reserve Analysts (APRA) standards fulfilling the requirements of a "Level I Full Reserve Study."

An ongoing review by the Board and an Update of this Reserve Study are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in time. We recommend the Board budget for an Update to this Reserve Study in two- to three-years. We look forward to continuing to help Sample Condominium Association plan for a successful future.

As part of our long-term thinking and everyday commitment to our clients, we are available to answer any questions you may have regarding this study.

Respectfully submitted on January 23, 2025 by

Reserve Advisors, LLC

Visual Inspection and Report by: RESERVE ADVISORS ENGINEER, RS¹
Review by: DIRECTOR OF QUALITY ASSURANCE, RS, PRA²

**Our report and experience backed by our
Personalized Experience Guarantee.**

Our trusted advisors work with you to tailor a reserve study that ensures clarity on the true cost of property ownership, providing you with peace of mind and expert guidance every step of the way.

1 RS (Reserve Specialist) is the reserve provider professional designation of the Community Associations Institute (CAI) representing America's more than 300,000 condominium, cooperative and homeowners associations.

2 PRA (Professional Reserve Analyst) is the professional designation of the Association of Professional Reserve Analysts. Learn more about APRA at <http://www.apra-usa.com>.



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1. RESERVE STUDY EXECUTIVE SUMMARY

Client: Sample Condominium Association (Sample)

Location: Madison, USA

Reference: 123456

Property Basics: Sample Condominium Association is a midrise style development which consists of 336 units in a 10-story building. The building was built in 2005.

Reserve Components Identified: 42 Reserve Components.

Inspection Date: January 1, 2025.

Funding Goal: The Funding Goal of this Reserve Study is to maintain reserves above an adequate, not excessive threshold during one or more years of significant expenditures. Our recommended Funding Plan recognizes this threshold funding year in 2025 due to inspections and capital repairs to the façade and in 2033 and 2053 due to interior renovation of the hallways.

Methodology: We use the Cash Flow Method to compute the Reserve Funding Plan. This method offsets future variable Reserve Expenditures with existing and future stable levels of reserve funding. Our application of this method also considers:

- Current and future local costs of replacement
- 2.7% anticipated annual rate of return on invested reserves
- 3.3% future Inflation Rate for estimating Future Replacement Costs

Sources for Local Costs of Replacement: Our proprietary database, historical costs and published sources, i.e., R.S. Means, Incorporated.

Unaudited Cash Status of Reserve Fund:

- \$550,000 as of January 1, 2025
- 2025 budgeted Reserve Contributions of \$450,000
- A potential deficit in reserves might occur by 2032 based upon continuation of the most recent annual reserve contribution of and the identified Reserve Expenditures.

Project Prioritization: We note anticipated Reserve Expenditures for the next 30 years in the **Reserve Expenditures** tables and include a **Five-Year Outlook** table following the **Reserve Funding Plan** in Section 3. We recommend the Association prioritize the following projects in the next five years based on the conditions identified:

- Capital repairs to the internal roof to prevent damage to the interior of the building
- Systematic patching of concrete to prevent the potential for water infiltration
- Coating application of steel reinforcement to the structural

The executive summary puts your community's financial roadmap and near-term priorities front and center, making it easy for all stakeholders to quickly understand the community's financial and physical needs.

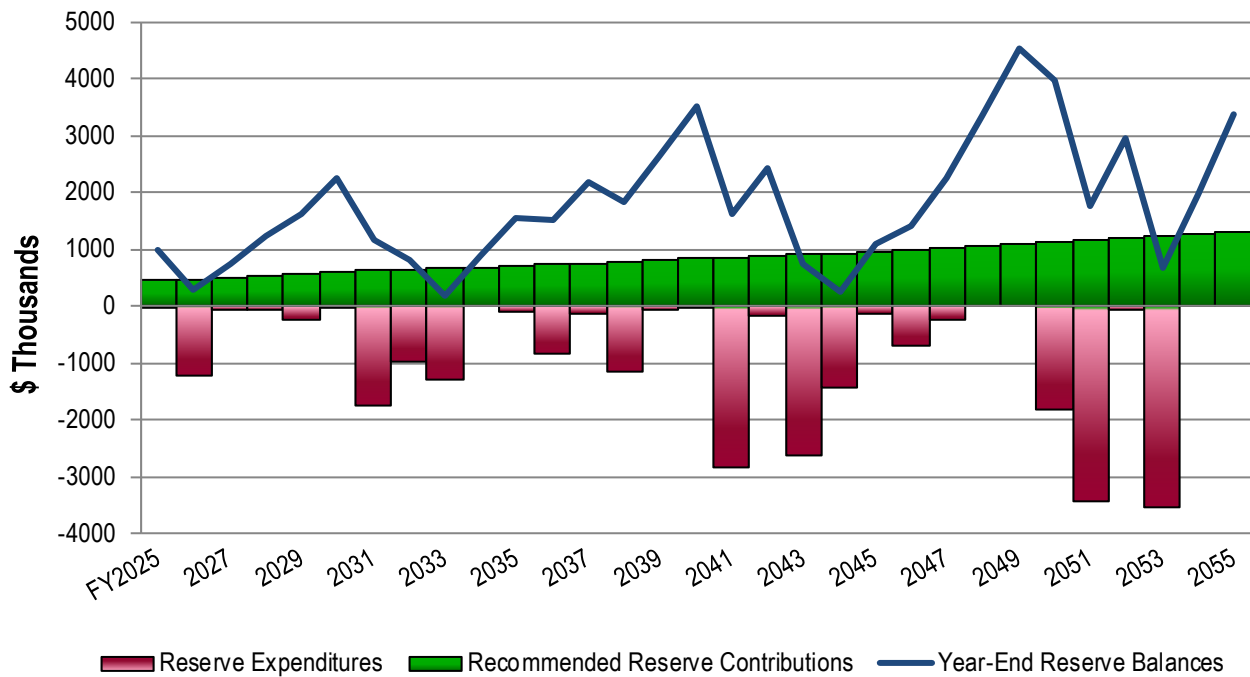
Recommended Reserve Funding: We recommend the following in order to achieve a stable and equitable Cash Flow Methodology Funding Plan:

- Phased increases of \$30,500 each year, from 2026 through 2030
- Inflationary increases from 2031 through 2043
- Stable contributions of \$918,900 in 2044
- Inflationary increases thereafter through 2055, the limit of this study's Cash Flow Analysis

- Initial adjustment in Reserve Contributions of \$30,500 represents an average monthly increase of \$7.56 per owner and about a two percent (1.7%) adjustment in the 2025 Total Budget of \$1,814,400.

Sample
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2026	480,500	283,799	2036	732,000	1,500,579	2046	980,500	1,396,499
2027	511,000	731,049	2037	756,200	2,171,637	2047	1,012,900	2,234,090
2028	541,500	1,250,095	2038	781,200	1,840,168	2048	1,046,300	3,354,835
2029	572,000	1,629,752	2039	807,000	2,643,878	2049	1,080,800	4,540,806
2030	602,500	2,242,068	2040	833,600	3,525,479	2050	1,116,500	3,969,084
2031	622,400	1,148,278	2041	861,100	1,621,236	2051	1,153,300	1,771,299
2032	642,900	826,399	2042	889,500	2,411,791	2052	1,191,400	2,948,682
2033	664,100	198,485	2043	918,900	760,425	2053	1,230,700	680,892
2034	686,000	899,105	2044	918,900	262,501	2054	1,271,300	1,987,739
2035	708,600	1,554,046	2045	949,200	1,082,601	2055	1,313,300	3,372,438



Threshold reserve funding ensures stable and the most equitable contributions over time, while reducing the risk of inadequate reserve funds over the next 30 years.



2. RESERVE STUDY REPORT

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Full Reserve Study* of

Sample Condominium Association

Madison, USA

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, January 1, 2025.

We present our findings and recommendations in the following report sections and spreadsheets:

- **Identification of Property** - Segregates all property into several areas of responsibility for repair or replacement
- **Reserve Expenditures** - Identifies reserve components and related quantities, useful lives, remaining useful lives and future reserve expenditures during the next 30 years
- **Reserve Funding Plan** - Presents the recommended Reserve Contributions and year-end Reserve Balances for the next 30 years
- **Five-Year Outlook** - Identifies reserve components and anticipated reserve expenditures during the first five years
- **Reserve Component Detail** - Describes the reserve components, includes photographic documentation of the condition of various property elements, describes our recommendations for repairs or replacement, and includes detailed solutions and procedures for replacements for the benefit of current and future board members
- **Methodology** - Lists the national standards, methods and procedures used to develop the Reserve Study
- **Definitions** - Contains definitions of terms used in the Reserve Study, consistent with national standards
- **Professional Service Conditions** - Describes Assumptions and Professional Service Conditions
- **Credentials and Resources**

IDENTIFICATION OF PROPERTY

Our investigation includes Reserve Components or property elements as set forth in your Declaration or which were identified as part of your request for proposed services. The Expenditure tables in this study. Our analysis begins by segregating property by responsibility for repair and replacement.

Identification of property and the responsibility matrix on the following page(s) convey ownership and clarify the funding mechanism for each asset within the community.

Our process of identifying property elements and the management team understand whether replacement of certain replacements and assists in preparation of the annual budget. We derive these segregated classes of property from our review of the information provided by the Association and through conversations with Management and the Board. These classes of property include:

- Reserve Components
- Long-Lived Property Elements
- Operating Budget Funded Repairs and Replacements
- Property Maintained by Owners
- Property Maintained by Others

We advise the Board conduct an annual review of these classes of property to confirm its policy concerning the manner of funding, i.e., from reserves or the operating budget. Reserve Components are defined by CAI as property elements with:

- Sample responsibility
- Limited useful life expectancies
- Predictable remaining useful life expectancies
- Replacement cost above a minimum threshold

The following tables depict the items excluded from the Reserve Expenditure plan:

Excluded Components

for
Sample
Condominium Association
Madison, USA

Operating Budget Components (varies by Association)

Repairs normally funded through the Operating Budget and Expenditures less than \$10,000 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)

The operating budget provides money for the repair and replacement of certain Reserve Components. The Association may develop independent criteria for use of operating and reserve funds.

- Doors, Interior
- Fire Extinguishers
- Landscape
- Motors
- Paint Finishes, Touch Up
- Pipes, Common, Interim Repairs and Waste Rodding
- Pressure Washing, Subsequent
- Pumps Less Than Five-HP (horsepower)
- Railings, Metal, Rear Elevation
- Rental Units, Interim Repairs and Partial Renovations
- Retaining Walls, Concrete, Inspections and Repairs¹
- Storage and Service Areas
- Valves²

¹ We assume the Association will fund repairs as needed through the operating budget. Updates of this Reserve Study will consider the need for additional reserve funds.

² We assume replacement as needed in lieu of an aggregate replacement of all valves as a single event.

Long-Lived Components (varies by Association)

These elements may not have predictable Remaining Useful Lives or their replacement may occur beyond the scope of this study. The operating budget should fund infrequent repairs. Funding untimely or unexpected replacements from reserves will necessitate increases to Reserve Contributions. Periodic updates of this Reserve Study will help determine the merits of adjusting the Reserve Funding Plan.

	Useful Life	Estimated Cost
• Electrical System, Main Panels, Partial	to 70+	N/A
• Foundation	Indeterminate	N/A
• Pool Structure and Deck, Total Replacement	to 60	\$390,000
• Structural Frame	Indeterminate	N/A

Excluded Components

for
Sample
Condominium Association
Madison, USA

Owners Responsibility Components (varies by Association)

Certain items have been designated as the responsibility of the Owners to repair or replace at their cost, including items billed back.

- Electrical Systems (Including Circuit Protection Panels)
- Heating, Ventilating and Air Conditioning (HVAC) Units
- Interiors
- Pipes (Within Units)
- Windows and Doors

Others Responsibility Components (varies by Association)

Certain items have been designated as the responsibility of Others to repair or replace.

- Alley¹
- Sidewalks, Along Streets¹

¹ Municipality

3. RESERVE EXPENDITURES and FUNDING PLAN

The tables following this introduction present:

Reserve Expenditures

- Line item numbers
- Total quantities
- Quantities replaced per phase (in a single year)
- Reserve component inventory
- Estimated first year of event (i.e., replacement, application, etc.)
- Life analysis showing
 - useful life
 - remaining useful life
- 2025 local cost of replacement
 - Per unit
 - Per phase
 - Replacement of total quantity
- Percentage of future expenditures anticipated during the next 30 years
- Schedule of estimated future costs for each reserve component including inflation

Reserve Funding Plan

- Reserves at the beginning of each year
- Total recommended reserve contributions
- Estimated interest earned from invested reserves
- Anticipated expenditures by year
- Anticipated reserves at year end
- Predicted reserves based on current funding level

Five-Year Outlook

- Line item numbers
- Reserve component inventory of only the expenditures anticipated to occur within the first five years
- Schedule of estimated future costs for each reserve component anticipated to occur within the first five years

The purpose of a Reserve Study is to provide an opinion of reasonable annual Reserve Contributions. Prediction of exact timing and costs of minor Reserve Expenditures typically will not significantly affect the 30-year cash flow analysis. Adjustments to the times and/or costs of expenditures may not always result in an adjustment in the recommended Reserve Contributions.

Financial statements prepared by your association, by you or others might rely in part on information contained in this section. For your convenience, we have provided an electronic data file containing the tables of ***Reserve Expenditures*** and ***Reserve Funding Plan***.

RESERVE EXPENDITURES

Sample
Condominium Association
Madison, USA

Explanatory Notes:

- 1) 3.3% is the estimated Inflation Rate for estimating Future Replacement Costs.
2) FY2025 is Fiscal Year beginning January 1, 2024 and ending December 31, 2024.
3) 2056+ indicates a component which is considered long-lived

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$		Percentage of Future Expenditures	RUL = 0 FY2025	1 2026	2 2027	3 2028	4 2029	5 2030	6 2031	7 2032	8 2033	9 2034	10 2035	11 2036	12 2037	13 2038	14 2039	15 2040	
Exterior Building Elements																											
1.060	4,800	4,800	Square Feet	Balconies, Concrete, Repairs and Waterproof Coating Applications	2029	8 to 12	4	13.00	62,400	62,400	2.2%				71,054						86,335						
1.180	32	32	Each	Doors, Garage and Walkway	2042	to 20	17	800.00	25,600	25,600	0.2%																
1.105	4,600	4,600	Linear Feet	Railings, Aluminum, Replacement	2053	to 50	28	58.00	266,800	266,800	2.7%																
1.460	400	400	Squares	Roofs, Metal (Includes Parapet Walls)	2041	to 30	16	2,300.00	920,000	920,000	6.2%																
1.500	44,000	44,000	Square Feet	Roof, Modified Bitumen	2031	15 to 20	6	15.00	660,000	660,000	9.4%						801,947										
1.590	700	700	Each	Vent Covers	2036	15 to 20	11	27.00	18,900	18,900	0.1%											27,013					
1.655	9,600	9,600	Square Feet	Walkways, Capital Repairs and Waterproof Coating Applications	2029	8 to 12	4	8.00	76,800	76,800	2.2%				87,451								113,387				
1.860	230,000	230,000	Square Feet	Walls, Stucco, Paint Finishes and Capital Repairs	2026	5 to 7	1	2.70	621,000	621,000	19.7%	641,493						779,460						947,100			
Interior Building Elements																											
2.100	3	3	Each	Elevator Cab Finishes	2033	to 15	8	20,000.00	60,000	60,000	0.9%	Age, condition, history of repairs and maintenance, and local conditions form the foundation for timing of each capital project.							77,795								
2.200	6,200	6,200	Square Yards	Floor Coverings, Carpet	2033	8 to 12	8	60.00	372,000	372,000	8.3%									482,331							
2.560	660	660	Each	Light Fixtures	2033	to 30	8	150.00	99,000	99,000	2.2%									128,362							
2.800	170,000	170,000	Square Feet	Paint Finishes, Hallways	2033	6 to 10	8	2.80	476,000	476,000	10.6%									617,177							
Building Services Elements																											
3.020	4	4	Each	Air Handling and Condensing Units (2015)	2032	12 to 18	7	7,000.00	28,000	28,000	0.4%							35,145									
3.030	2	2	Each	Air Handling and Condensing Units (2020)	2037	12 to 18	12	7,000.00	14,000	14,000	0.2%												20,670				
3.040	19	6	Each	Air Handling and Condensing Units (Remaining), Phased	2027	to 20	2 to 4	7,000.00	44,310	133,000	1.5%		47,283	48,843	50,455												
3.360	3	3	Each	Elevators, Traction, Controls and Equipment	2043	to 35	18	155,000.00	465,000	465,000	3.3%																
3.440	1	1	Each	Generator, Emergency, 345-kW (Includes Transfer Switch)	2036	25 to 35	11	128,500.00	128,500	128,500	0.7%										183,657						
3.560	1	1	Allowance	Life Safety System, Control Panel and Emergency Devices	2040	to 25	15	21,000.00	21,000	21,000	0.1%														34,176		
3.700	2	2	Each	Pumps, Domestic Cold Water, 10-HP	2030	to 20	5	13,500.00	27,000	27,000	0.4%					31,759											
3.701	1	1	Each	Pump, Domestic Cold Water, 7.5-HP	2030	to 20	5	8,500.00	8,500	8,500	0.1%					9,998											
3.810	14	14	Each	Security System, Door Entry	2031	15 to 20	6	3,150.00	44,100	44,100	0.9%						53,585										
3.820	2	1	Allowance	Security System, Surveillance, Phased	2026	to 15	1 to 7	53,500.00	53,500	107,000	1.7%	55,266						67,152					81,594				
Clubhouse and Office Elements																											
5.155	3	3	Each	Exercise Equipment, Cardiovascular, Treadmills	2026	15 to 20	1	3,700.00	11,100	11,100	0.4%	11,466						13,932					16,929				
5.160	1	1	Allowance	Exercise Equipment, Cardiovascular, Remaining	2026	4 to 6	1	42,000.00	42,000	42,000	1.3%	43,386						52,717					64,055				
5.165	1	1	Allowance	Exercise Equipment, Strength Training	2026	to 15	1	34,000.00	34,000	34,000	0.4%	35,122															
5.200	300	300	Square Yards	Floor Coverings, Carpet	2032	12 to 18	7	60.00	18,000	18,000	0.4%							22,593									
5.240	115	115	Square Yards	Floor Coverings, Tile	2041	to 20	16	150.00	17,250	17,250	0.1%																
5.420	300	300	Square Yards	Floor Coverings, Wood	2041	to 10	16	145.00	43,500	43,500	0.3%																
5.450	1	1	Allowance	Furnishings and Equipment	2031	varies	6	105,000.00	105,000	105,000	2.2%						127,583										

RESERVE EXPENDITURES

Sample Condominium Association Madison, USA				Estimated 1st Year of Event	Life Analysis, Years		Costs, \$			Percentage of Future Expenditures	16 2041	17 2042	18 2043	19 2044	20 2045	21 2046	22 2047	23 2048	24 2049	25 2050	26 2051	27 2052	28 2053	29 2054	30 2055		
Line Item	Total Quantity	Per Phase Quantity	Units		Reserve Component Inventory	Useful	Remaining	Unit (2025)	Per Phase (2025)																	Total (2025)	
Exterior Building Elements																											
1.060	4,800	4,800	Square Feet	Balconies, Concrete, Repairs and Waterproof Coating Applications	2029	8 to 12	4	13.00	62,400	62,400	2.2%	104,903					127,465							154,879			
1.180	32	32	Each	Doors, Garage and Walkway	2042	to 20	17	800.00	25,600	25,600	0.2%		44,458														
1.105	4,600	4,600	Linear Feet	Railings, Aluminum, Replacement	2053	to 50	28	58.00	266,800	266,800	2.7%													662,209			
1.460	400	400	Squares	Roofs, Metal (Includes Parapet Walls)	2041	to 30	16	2,300.00	920,000	920,000	6.2%	1,546,653															
1.500	44,000	44,000	Square Feet	Roof, Modified Bitumen	2031	15 to 20	6	15.00	660,000	660,000	9.4%									1,535,155							
1.590	700	700	Each	Vent Covers	2036	15 to 20	11	27.00	18,900	18,900	0.1%																
1.655	9,600	9,600	Square Feet	Walkways, Capital Repairs and Waterproof Coating Applications	2029	8 to 12	4	8.00	76,800	76,800	2.2%				147,017									190,621			
1.860	230,000	230,000	Square Feet	Walls, Stucco, Paint Finishes and Capital Repairs	2026	5 to 7	1	2.70	621,000	621,000	19.7%				1,150,794					1,398,298							
Interior Building Elements																											
2.100	3	3	Each	Elevator Cab Finishes	2033	to 15	8	20,000.00	60,000	60,000	0.9%						You receive the expenditure and funding plan tables in Excel. Management and the Board can easily adjust project costs, timelines, and annual funding and see the results in real-time.							148,922			
2.200	6,200	6,200	Square Yards	Floor Coverings, Carpet	2033	8 to 12	8	60.00	372,000	372,000	8.3%				667,342									923,319			
2.560	660	660	Each	Light Fixtures	2033	to 30	8	150.00	99,000	99,000	2.2%				177,599									245,722			
2.800	170,000	170,000	Square Feet	Paint Finishes, Hallways	2033	6 to 10	8	2.80	476,000	476,000	10.6%				853,911									1,181,452			
Building Services Elements																											
3.020	4	4	Each	Air Handling and Condensing Units (2015)	2032	12 to 18	7	7,000.00	28,000	28,000	0.4%						57,196										
3.030	2	2	Each	Air Handling and Condensing Units (2020)	2037	12 to 18	12	7,000.00	14,000	14,000	0.2%												33,639				
3.040	19	6	Each	Air Handling and Condensing Units (Remaining), Phased	2027	to 20	2 to 4	7,000.00	44,310	133,000	1.5%		76,950	79,489	82,112												
3.360	3	3	Each	Elevators, Traction, Controls and Equipment	2043	to 35	18	155,000.00	465,000	465,000	3.3%				834,178												
3.440	1	1	Each	Generator, Emergency, 345-kW (Includes Transfer Switch)	2036	25 to 35	11	128,500.00	128,500	128,500	0.7%																
3.560	1	1	Allowance	Life Safety System, Control Panel and Emergency Devices	2040	to 25	15	21,000.00	21,000	21,000	0.1%																
3.700	2	2	Each	Pumps, Domestic Cold Water, 10-HP	2030	to 20	5	13,500.00	27,000	27,000	0.4%									60,796							
3.701	1	1	Each	Pump, Domestic Cold Water, 7.5-HP	2030	to 20	5	8,500.00	8,500	8,500	0.1%									19,139							
3.810	14	14	Each	Security System, Door Entry	2031	15 to 20	6	3,150.00	44,100	44,100	0.9%	74,138									102,576						
3.820	2	1	Allowance	Security System, Surveillance, Phased	2026	to 15	1 to 7	53,500.00	53,500	107,000	1.7%				99,143					120,465							
Clubhouse and Office Elements																											
5.155	3	3	Each	Exercise Equipment, Cardiovascular, Treadmills	2026	15 to 20	1	3,700.00	11,100	11,100	0.4%				20,570					24,994							
5.160	1	1	Allowance	Exercise Equipment, Cardiovascular, Remaining	2026	4 to 6	1	42,000.00	42,000	42,000	1.3%				77,832					94,571							
5.165	1	1	Allowance	Exercise Equipment, Strength Training	2026	to 15	1	34,000.00	34,000	34,000	0.4%	57,159															
5.200	300	300	Square Yards	Floor Coverings, Carpet	2032	12 to 18	7	60.00	18,000	18,000	0.4%		31,259										43,250				
5.240	115	115	Square Yards	Floor Coverings, Tile	2041	to 20	16	150.00	17,250	17,250	0.1%	29,000															
5.420	300	300	Square Yards	Floor Coverings, Wood	2041	to 10	16	145.00	43,500	43,500	0.3%	73,130															
5.450	1	1	Allowance	Furnishings and Equipment	2031	varies	6	105,000.00	105,000	105,000	2.2%	176,520									244,229						

The sample unit costs shown
herein are not applicable to
estimate an actual reserve study.

You receive the expenditure and
funding plan tables in Excel.
Management and the Board can easily
adjust project costs, timelines, and
annual funding and see the results in
real-time.

RESERVE EXPENDITURES

Sample
Condominium Association
Madison, USA

Explanatory Notes:

- 1) 3.3% is the estimated Inflation Rate for estimating Future Replacement Costs.
2) FY2025 is Fiscal Year beginning January 1, 2024 and ending December 31, 2024.
3) 2056+ indicates a component which is considered long-lived

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$			Percentage of Future Expenditures	RUL = 0 FY2025	1 2026	2 2027	3 2028	4 2029	5 2030	6 2031	7 2032	8 2033	9 2034	10 2035	11 2036	12 2037	13 2038	14 2039	15 2040
						Useful	Remaining	Unit (2025)	Per Phase (2025)	Total (2025)																	
5.800	28,000	28,000	Square Feet	Paint Finishes	2031	to 35	6	2.80	78,400	78,400	1.6%							95,262									
Pool Elements																											
6.200	10,000	10,000	Square Feet	Deck, Pavers (Includes Fountain and Sitting Area)	2036	to 25	11	8.50	85,000	85,000	0.5%											121,485					
6.500	1	1	Allowance	Furniture	2026	to 12	1	37,000.00	37,000	37,000	0.7%	38,221												56,429			
6.600	2	1	Allowance	Mechanical Equipment, Phased	2025	to 15	0 to 7	16,000.00	16,000	32,000	0.5%	16,000						20,083							25,207		
6.800	1,500	1,500	Square Feet	Pool Finish, Plaster	2027	to 15	2	16.00	24,000	24,000	0.5%		25,610												37,811		
6.900	1,500	1,500	Square Feet	Structure, Total Replacement	2065	to 60	40	260.00	390,000	390,000	0.0%																
Garage Elements																											
7.300	200,000	200,000	Square Feet	Concrete, Coatings, Corrosion Inhibitor, Floors One Through Seven	2026	4 to 6	1	1.10	220,000	220,000	8.5%	227,260						267,316					314,432				
7.340	30,000	30,000	Square Feet	Concrete, Coatings, Traffic Deck, Floor Eight	2026	to 90	1	3.60	108,000	108,000	4.2%	111,564						131,228					154,357				
7.360	230,000	230,000	Square Feet	Concrete, Inspections and Capital Repairs	2031	15 to 20	6	0.80	184,000	184,000	2.6%							223,573									
7.400	2	2	Each	Gates and Operators	2026	8 to 15	1	26,522.50	53,045	53,045	0.6%	54,795															
7.950	1	1	Allowance	Security Hut, Partial	2029	to 90	4 to 30+	19,096.00	19,096	19,096	0.2%				21,744												
Marina Elements																											
8.100	315	315	Linear Feet	Bulkhead, Inspections and Capital Repairs	2031	to 15	6	159.00	50,085	50,085	0.7%							60,857									
8.800	14	14	Each	Light Fixtures, Concrete Bollards	2046	to 35	21	700.00	9,800	9,800	0.1%																
8.950	2,520	2,520	Square Feet	Pavers, Masonry	2036	10 to 15	11	7.00	17,640	17,640	0.1%												25,212				
	1	1	Allowance	Reserve Study Update with Site Visit, Partial	2027	2	2 to 30+	4,100.00	4,100	4,100	0.0%			4,375													
Anticipated Expenditures, By Year (\$24,953,782 over 30 years)												16,000	1,218,573	77,268	48,843	230,703	41,757	1,761,350	991,082	1,305,666	0	86,335	826,155	134,057	1,166,107	63,018	34,176

RESERVE EXPENDITURES

Sample Condominium Association Madison, USA				Estimated 1st Year of Event	Life Analysis, Years		Costs, \$			Percentage of Future Expenditures	16 2041	17 2042	18 2043	19 2044	20 2045	21 2046	22 2047	23 2048	24 2049	25 2050	26 2051	27 2052	28 2053	29 2054	30 2055
Line Item	Total Quantity	Per Phase Quantity	Units		Useful	Remaining	Unit (2025)	Per Phase (2025)	Total (2025)																
Reserve Component Inventory																									
5.800	28,000	28,000	Square Feet	Paint Finishes	2031	to 35	6	2.80	78,400	78,400	1.6%	131,802													
Pool Elements																									
6.200	10,000	10,000	Square Feet	Deck, Pavers (Includes Fountain and Sitting Area)	2036	to 25	11	8.50	85,000	85,000	0.5%														
6.500	1	1	Allowance	Furniture	2026	to 12	1	37,000.00	37,000	37,000	0.7%									83,312					
6.600	2	1	Allowance	Mechanical Equipment, Phased	2025	to 15	0 to 7	16,000.00	16,000	32,000	0.5%					31,639							39,713		
6.800	1,500	1,500	Square Feet	Pool Finish, Plaster	2027	to 15	2	16.00	24,000	24,000	0.5%												55,824		
6.900	1,500	1,500	Square Feet	Structure, Total Replacement	2065	to 60	40	260.00	390,000	390,000	0.0%														
Garage Elements																									
7.300	200,000	200,000	Square Feet	Concrete, Coatings, Corrosion Inhibitor, Floors One Through Seven	2026	4 to 6	1	1.10	220,000	220,000	8.5%	369,852				435,040							511,718		
7.340	30,000	30,000	Square Feet	Concrete, Coatings, Traffic Deck, Floor Eight	2026	to 90	1	3.60	108,000	108,000	4.2%	181,564				213,565							251,207		
7.360	230,000	230,000	Square Feet	Concrete, Inspections and Capital Repairs	2031	15 to 20	6	0.80	184,000	184,000	2.6%												427,983		
7.400	2	2	Each	Gates and Operators	2026	8 to 15	1	26,522.50	53,045	53,045	0.6%	89,176													
7.950	1	1	Allowance	Security Hut, Partial	2029	to 90	4 to 30+	19,096.00	19,096	19,096	0.2%						39,008								
Marina Elements																									
8.100	315	315	Linear Feet	Bulkhead, Inspections and Capital Repairs	2031	to 15	6	159.00	50,085	50,085	0.7%												116,497		
8.800	14	14	Each	Light Fixtures, Concrete Bollards	2046	to 35	21	700.00	9,800	9,800	0.1%					19,379									
8.950	2,520	2,520	Square Feet	Pavers, Masonry	2036	10 to 15	11	7.00	17,640	17,640	0.1%														
	1	1	Allowance	Reserve Study Update with Site Visit, Partial	2027	2	2 to 30+	4,100.00	4,100	4,100	0.0%														
Anticipated Expenditures, By Year (\$24,953,782 over 30 years)											2,833,898	152,667	2,612,520	1,430,450	147,017	699,624	223,669	0	0	1,801,575	3,427,548	76,888	3,546,837	0	0

RESERVE FUNDING PLAN

Our reports evaluate current reserve funds and return on investments in order to create the most stable recommended annual reserve contributions.

CASH FLOW ANALYSIS		Individual Reserve Budgets & Cash Flows for the Next 30 Years															
Sample Condominium Association		FY2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Madison, USA																	
Reserves at Beginning of Year	(Note 1)	550,000	1,004,709	283,799	731,049	1,250,095	1,629,752	2,242,068	1,148,278	826,399	198,485	899,105	1,554,046	1,500,579	2,171,637	1,840,168	2,643,878
Total Recommended Reserve Contributions	(Note 2)	450,000	480,500	511,000	541,500	572,000	602,500	622,400	642,900	664,100	686,000	708,600	732,000	756,200	781,200	807,000	833,600
Anticipated Interest Rate		2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%
Estimated Interest Earned, During Year	(Note 3)	20,709	17,163	13,518	26,389	38,360	51,573	45,160	26,303	13,652	14,620	32,676	40,688	48,915	53,438	59,728	82,177
Anticipated Expenditures, By Year		(16,000)	(1,218,573)	(77,268)	(48,843)	(230,703)	(41,757)	(1,761,350)	(991,082)	(1,305,666)	0	(86,335)	(826,155)	(134,057)	(1,166,107)	(63,018)	(34,176)
Anticipated Reserves at Year End		<u>\$1,004,709</u>	<u>\$283,799</u>	<u>\$731,049</u>	<u>\$1,250,095</u>	<u>\$1,629,752</u>	<u>\$2,242,068</u>	<u>\$1,148,278</u>	<u>\$826,399</u>	<u>\$198,485</u>	<u>\$899,105</u>	<u>\$1,554,046</u>	<u>\$1,500,579</u>	<u>\$2,171,637</u>	<u>\$1,840,168</u>	<u>\$2,643,878</u>	<u>\$3,525,479</u>
			(NOTE 5)							(NOTE 5)							
Predicted Reserves based on 2025 funding level of:	\$450,000	1,004,709	252,887	637,479	1,061,264	1,312,176	1,761,359	479,862	(55,568)	(924,286)							

(continued)	Individual Reserve Budgets & Cash Flows for the Next 30 Years, Continued														
	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055
Reserves at Beginning of Year	3,525,479	1,621,236	2,411,791	760,425	262,501	1,082,601	1,396,499	2,234,090	3,354,835	4,540,806	3,969,084	1,771,299	2,948,682	680,892	1,987,739
Total Recommended Reserve Contributions	861,100	889,500	918,900	918,900	949,200	980,500	1,012,900	1,046,300	1,080,800	1,116,500	1,153,300	1,191,400	1,230,700	1,271,300	1,313,300
Anticipated Interest Rate	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%
Estimated Interest Earned, During Year	68,555	53,721	42,254	13,626	17,917	33,022	48,360	74,445	105,171	113,353	76,463	62,871	48,347	35,547	71,399
Anticipated Expenditures, By Year	(2,833,898)	(152,667)	(2,612,520)	(1,430,450)	(147,017)	(699,624)	(223,669)	0	0	(1,801,575)	(3,427,548)	(76,888)	(3,546,837)	0	0
Anticipated Reserves at Year End	<u>\$1,621,236</u>	<u>\$2,411,791</u>	<u>\$760,425</u>	<u>\$262,501</u>	<u>\$1,082,601</u>	<u>\$1,396,499</u>	<u>\$2,234,090</u>	<u>\$3,354,835</u>	<u>\$4,540,806</u>	<u>\$3,969,084</u>	<u>\$1,771,299</u>	<u>\$2,948,682</u>	<u>\$680,892</u>	<u>\$1,987,739</u>	<u>\$3,372,438</u>
				(NOTE 5)									(NOTE 5)		(NOTE 4)

Interested in modeling alternate funding recommendations? The Excel spreadsheets included in your report let you change annual reserve contributions, interest rates, and inflation when creating alternate funding scenarios.

Explanatory Notes:

- 1) Year 2025 starting reserves are as of January 1, 2025; FY2025 starts January 1, 2024 and ends December 31, 2024.
- 2) Reserve Contributions for 2025 are budgeted; 2026 is the first year of recommended contributions.
- 3) 2.7% is the estimated annual rate of return on invested reserves.
- 4) Accumulated year 2055 ending reserves consider the need to fund for subsequent replacement of the thermosplastic roof shortly after 2055, and the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Years (reserve balance at critical point).

FIVE-YEAR OUTLOOK**Sample
Condominium Association**
Madison, USA**Easily focus on near-term
major projects and priorities
with the 5-Year Outlook table.**

Line Item	Reserve Component Inventory	RUL = 0 FY2025	1 2026	2 2027	3 2028	4 2029	5 2030
<u>Exterior Building Elements</u>							
1.060	Balconies, Concrete, Repairs and Waterproof Coating Applications					71,054	
1.655	Walkways, Capital Repairs and Waterproof Coating Applications					87,451	
1.860	Walls, Stucco, Paint Finishes and Capital Repairs		641,493				
<u>Building Services Elements</u>							
3.040	Air Handling and Condensing Units (Remaining), Phased			47,283	48,843	50,455	
3.700	Pumps, Domestic Cold Water, 10-HP						31,759
3.701	Pump, Domestic Cold Water, 7.5-HP						9,998
3.820	Security System, Surveillance, Phased		55,266				
<u>Clubhouse and Office Elements</u>							
5.155	Exercise Equipment, Cardiovascular, Treadmills		11,466				
5.160	Exercise Equipment, Cardiovascular, Remaining		43,386				
5.165	Exercise Equipment, Strength Training		35,122				
<u>Pool Elements</u>							
6.500	Furniture		38,221				
6.600	Mechanical Equipment, Phased	16,000					
6.800	Pool Finish, Plaster			25,610			
<u>Garage Elements</u>							
7.300	Concrete, Coatings, Corrosion Inhibitor, Floors One Through Seven		227,260				
7.340	Concrete, Coatings, Traffic Deck, Floor Eight		111,564				
7.400	Gates and Operators		54,795				
7.950	Security Hut, Partial					21,744	
	Reserve Study Update with Site Visit, Partial			4,375			
Anticipated Expenditures, By Year (\$1,633,144 over 5 years)		16,000	1,218,573	77,268	48,843	230,703	41,757

4. RESERVE COMPONENT DETAIL

The Reserve Component Detail of this *Full Reserve Study* includes enhanced solutions and procedures for select significant components. This section describes the Reserve Components, documents specific problems and condition assessments, and may include detailed solutions and procedures for necessary capital repairs and replacements for the benefit of current and future board members. We advise the Board use this information to help define the scope and procedures for repair or replacement when soliciting bids or proposals from contractors. *However, the Report in whole or part is not and should not be used as a design specification or design engineering service.*

Exterior Building Elements

Balconies, Concrete

Line Item: 1.060

Quantity: 300 concrete Juliet balconies comprising approximately 4,800 square feet of horizontal surface area.

History: Original

Condition: Good overall. Management informs us the Association recently conducted minor repairs at the balconies.



Juliet balcony



Balcony discoloration

Get more from your reserve study. Detailed condition assessments provide valuable insights for management and your board, helping you evaluate project bids, understand property conditions with photo-based documentation, reduce total cost of ownership through timely maintenance, and more.

Narrative throughout report reduced for brevity



Juliet balcony

Useful Life: Capital repairs including a close-up visual inspection, patching of delaminated concrete, routing and filling of cracked concrete, and waterproof coating applications every five- to seven-years.

Component Detail Notes: A waterproof coating application minimizes storm water penetration into the concrete and therefore minimizes future concrete deterioration. *Failure to maintain a waterproof coating on the balconies will result in increased concrete repairs and replacements as the balconies age.* Capital repairs may also include replacement of the caulked joint between the balcony and the building, and repair or replacement of the metal railings and railing fastener attachments as needed.

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost includes the following activities per event:

- Partial depth replacement of up to one percent (1%) of the concrete topsides, edges and undersides
- Crack repairs as necessary
- Repairs to the railings as necessary
- Replacement of perimeter sealants as needed
- Application of a waterproof coating (Urethane based elastomeric)

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Roofs, Metal

Line Item: 1.460

Quantity: 400 squares¹

History: Original

Condition: Good overall. Management does not report a history of leaks.



Metal roof



Metal roof

Useful Life: Up to 30 years

Preventative Maintenance Notes: We recommend the Association maintain a service and inspection contract with a qualified professional and record all documentation of repairs conducted. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
 - Record any areas of water infiltration, flashing deterioration, damage or loose fasteners
 - Implement repairs as needed if issues are reoccurring
 - Ensure proper ventilation and verify vents are clear of debris and not blocked from attic insulation
 - Clear valleys of debris
 - Periodic cleaning at areas with organic growth

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

¹ We quantify the roof area in squares where one square is equal to 100 square feet of surface area.

Narrative throughout report reduced for brevity

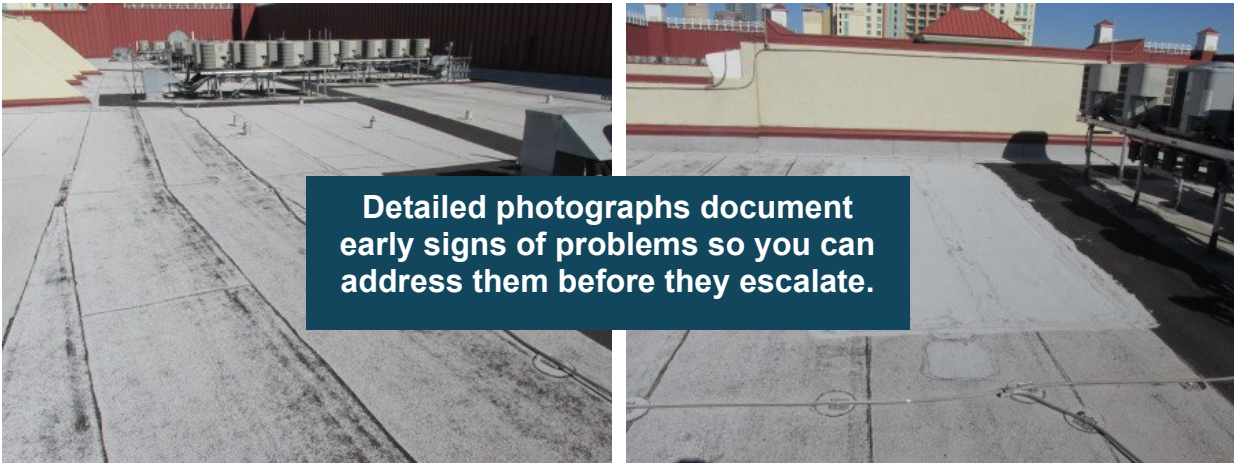
Roof, Modified Bitumen

Line Item: 1.500

Quantity: 44,000 square feet

History: Original

Condition: Fair overall. Management informs us the Association previously conducted repairs; however, there are no present leaks.



Modified bitumen roof

Modified bitumen roof – previous repair



Modified bitumen roof – ponding at drain

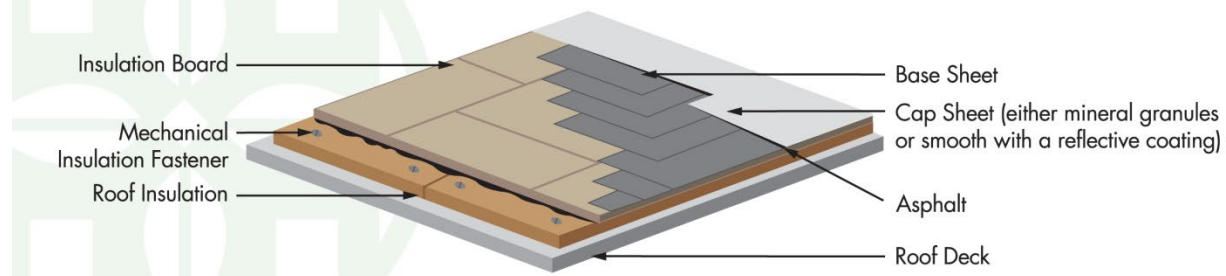
Useful Life: 15- to 20-years

Component Detail Notes: Modified bitumen roofing systems are composed of factory manufactured sheets of polymer-modified bitumen with polyester and/or fiberglass reinforcements. The bitumen adds a waterproof characteristic to the system and the reinforcements add strength and puncture resistance. These factory assembled roofing

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systems offer the advantages of a built-up roofing system through a less labor intensive installation. The following detail depicts a typical modified bitumen roof:

MODIFIED BITUMEN ROOF DETAIL



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Contractors can install a new modified bitumen roof in one of two ways: *tear-off* or an *overlay*. An overlay is the application of a new roof membrane over an existing roof. This method, although initially more economical, often covers up problems with the deck, flashing and saturated insulation. The tear-off method of replacement includes removal of the existing roofing, flashings and insulation, and installation of a new roofing system.

The contractor should follow the manufacturer's directions and specifications upon installation of the roof. The contractor should remove the original insulation if saturated or compacted and apply a new layer of insulation per the manufacturer's instructions. The insulation should fit loosely with gaps no greater than ¼ inch. Gaps will cause failure of the membrane later. Mechanical fastening of the insulation is the best manner of installation. The contractor applies the base sheet of roofing over the insulation board. This sheet is normally 30-pound material. The contractor should start the installation of a roof membrane from the lowest points of the roof. Mechanical fastening and embedding the base sheet in a flood coat of hot asphalt is the best manner of installation. The membrane and plies are either torch applied (thermoset) or hot asphalt applied. We recommend the contractor use the torch method to install a modified bitumen membrane roof system.

Preventative Maintenance Notes: We recommend the Association maintain a service and inspection contract with a qualified professional and record all documentation of repairs conducted. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

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- Semi-annually:
 - Note drainage issues with water ponding after 48 hours of rainfall event. Verify scuppers and drains are free of debris. Replace damaged or missing drain covers.
 - Inspect perimeter flashing for loose fasteners, deflections, and sealant damage
 - Verify membrane surface is free of ruptures or damage, and areas of extensive blistering or bubbling
 - Remove oil spills or contaminants from mechanical equipment
 - In areas of possible foot traffic, remove any sharp debris or trash and note areas of crushed insulation
 - If frequency of leaks increase or location of water infiltration is unknown, we recommend the consideration of a thermal image inspection

Priority/Criticality: Defective or damaged components should be repaired by a professional or engineer

Expenditure Detail Note: Expenditures are listed in the **Reserve Expenditures** table in Section 4.6. Expenditures are not predicted in the **Reserve**

Preventative maintenance recommendations help you effectively maintain your assets, maximize their useful life, and reduce the total cost of ownership.

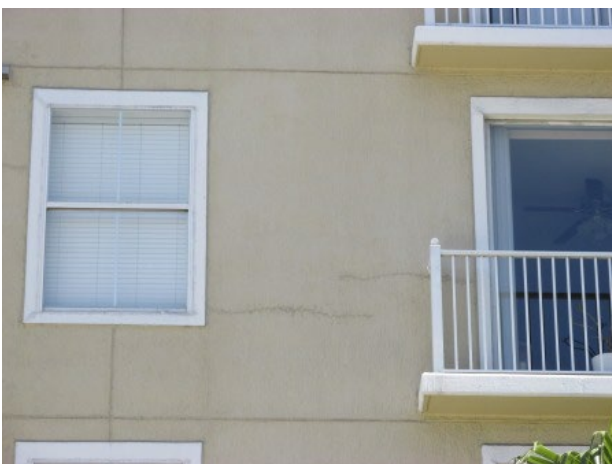
Walls, Stucco

Line Item: 1.860

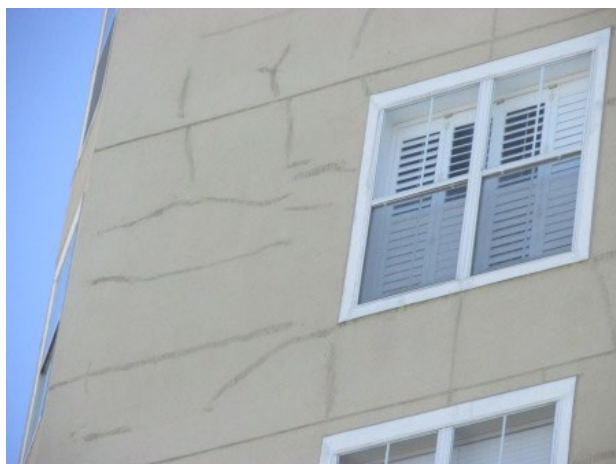
Quantity: Approximately 230,000 square feet of the building exteriors

History: Stucco paint finish is six years of age.

Condition: Fair to poor condition. Management informs us the Association recently conducted significant stucco crack repairs and plans to apply a paint finish in 20XX.



Stucco crack repair



Stucco crack repair

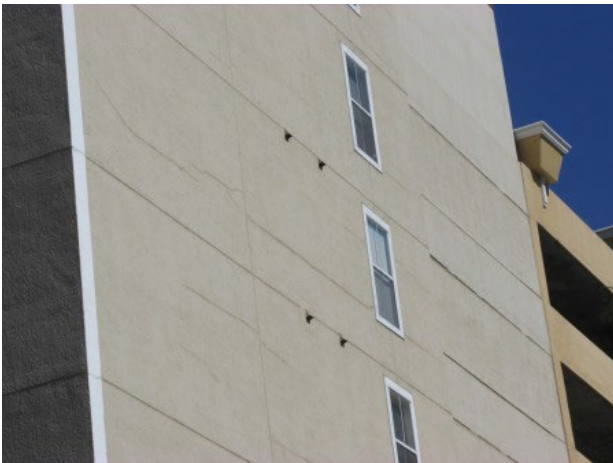
Narrative throughout report reduced for brevity



Biological growth



Walkway stucco paint finish



Stucco crack repairs



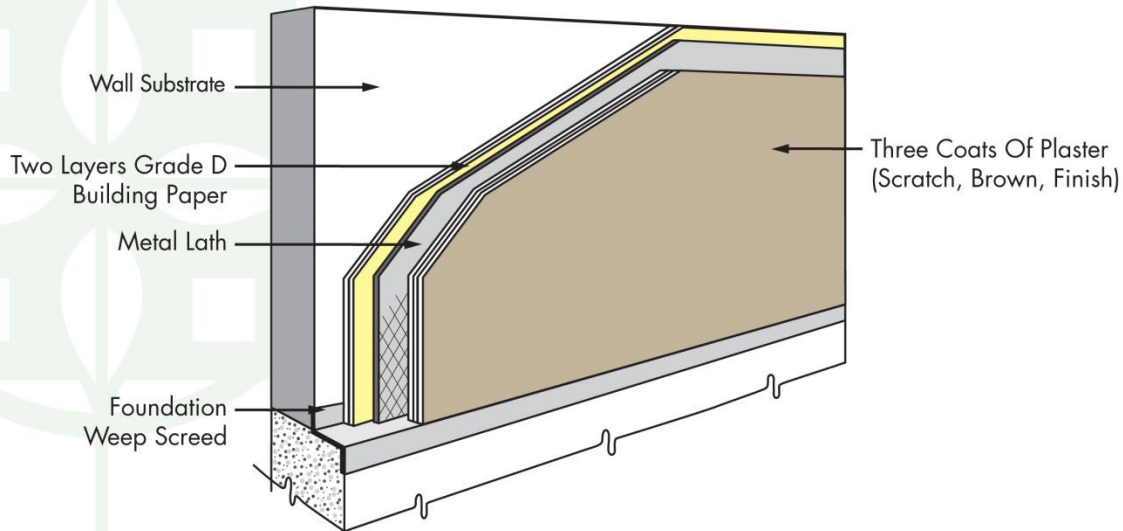
Stucco crack repairs

Useful Life: We recommend inspections, repairs and paint finish applications every five-to seven-years.

Component Detail Notes: The following graphic details the typical components of a stucco wall system on frame construction:

Narrative throughout report reduced for brevity

STUCCO DETAIL



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Correct and complete preparation of the surface before application of the paint finish maximizes the useful life of the paint finish and surface. The contractor should remove all loose, peeled or blistered paint before application of the new paint finish. The contractor should then power wash the surface to remove all dirt and biological growth. Water-soluble cleaners that will not attack Portland cement are acceptable for removing stains.

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We assume the following activities in conjunction with each paint event:

- Crack repairs as needed (Each paint product has the limited ability to cover and seal cracks but we recommend repair of all cracks which exceed the ability of the paint product to bridge.)
- Replacement of up to one percent (1%), of the stucco walls (The exact amount of area in need of replacement will be discretionary based on the actual future conditions and the desired appearance.)
- Replacement of up to thirty-three percent (33%) of the sealants in coordination with each paint finish application.

Narrative throughout report reduced for brevity

Interior Building Elements

Floor Coverings, Carpet

Line Item: 2.200

Quantity: 6,200 square yards at the common area hallway floor coverings (Contractor measurements will vary from the actual floor area due to standard roll lengths, patterns and installation waste.)

History: Replaced in 2019

Conditions: Good overall



Hallway overview



Hallway carpet – minor repair

Useful Life: 8- to 12-years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We base our estimate of cost on information provided by Management.

Building Services Elements

Air Handling and Condensing Units

Line Items: 3.020, 3.030 and 3.040

Quantity: 25 split systems

History: Management informs us the Association replaced four systems in 2013, two systems in 2018 and the remaining 19 systems are original.

Narrative throughout report reduced for brevity

Condition: Reported satisfactory



Typical interior air handling unit

Useful Life: 12- to 18-years

Component Detail Notes: A split system air conditioner consists of an outside condensing unit, an interior evaporator coil, refrigerant lines and an interior electric air handling unit. The exact capacities of the split systems are unknown.

Preventative Maintenance Notes: We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the Association maintain a maintenance contract with a qualified professional. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Semi-annually:
 - Lubricate motors and bearings
 - Change or clean air filters as needed
 - Inspect condenser base and piping insulation
 - Inspect base pan, coil, cabinet and clear obstructions as necessary
- Annually:
 - Clean coils and drain pans, clean fan assembly, check refrigerant charge, inspect fan drive system and controls
 - Inspect and clean accessible ductwork as needed
 - Clean debris from inside cabinet, inspect condenser compressor and associated tubing for damage

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. The condensing unit may require replacement prior to replacement of the related interior forced air unit. For purposes of this Reserve Study, we assume coordination of replacement of the interior forced air unit, evaporator coil, refrigerant lines and exterior condensing unit.

Narrative throughout report reduced for brevity

Elevators, Traction

Line Item: 3.360

Quantity: Three Kone traction elevators

History: The majority of the elevator system components are original.

Condition: Reported satisfactory



Machine roomless elevator controls

Useful Life: Up to 35 years however, the scarcity of parts, and the potential frequency and duration of service interruption makes controls replacement more desirable as the components age.

Preventative Maintenance Notes: We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the Association maintain a maintenance contract with a qualified professional. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Ongoing:
 - Maintain a maintenance contract with a qualified professional for the elevator(s) and follow the manufacturer's specific recommended maintenance plan adhering to local, state, and/or federal inspection guidelines
- As-needed:
 - Keep an accurate log of all repairs and inspection dates
 - Inspect and adjust misaligned door operators
 - Clear and remove any items located in the elevator machine room(s) not associated with the elevator components (These rooms should never be used for storage)
 - Inspect electrical components for signs of overheating or failure
 - Inspect controls

Narrative throughout report reduced for brevity

- Lubricate the hoist cables
- Inspect hoist cables and motors for signs of wear or deterioration
- Ensure air temperature and humidity of machine/pump housing room meets the designated specified range for proper operation
- Ensure all call buttons are in working condition

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We anticipate replacement of the following traction elevator system components:

- Cab control panels
- Door operators
- Hallway panels/buttons
- Hoists and motors
- Microprocessor based controllers

Life Safety System

Line Items: 3.560

Quantity: The life safety system at Parkside includes the following components:

- Audio/visual fixtures
- control panel
- Detectors
- Emergency and exit lights
- Pull stations
- Wiring

History: Management informs us the control panel was replaced in 2018; however, the devices are original.

Conditions: Reported satisfactory



Life safety system control panel



Life safety system devices

Narrative throughout report reduced for brevity



Useful Life: Up to 25 years

Preventative Maintenance Notes: We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. In accordance with *NFPA 72* (National Fire Alarm and Signaling Code) we also recommend the Association maintain a maintenance contract with a qualified professional. The required preventative maintenance may vary in frequency and scope based on the age of the components, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Semi-annually:
 - Inspect and test all components and devices, including, but not limited to, control panels, annunciators, detectors, audio/visual fixtures, signal transmitters and magnetic door holders
 - Test backup batteries
- As-needed:
 - Ensure clear line of access to components such as pull stations
 - Ensure detectors are properly positioned and clean of debris

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Changes in technology or building codes may make a replacement desirable prior to the end of the functional life. Our estimate of future cost considers only that amount necessary to duplicate the same functionality. Local codes or ordinances at the actual time of replacement may require a betterment as compared to the existing system. A betterment could result in a higher, but at this time unknown, cost of replacement. We recommend the Association fund interim control panel replacement through the operating budget.

Pool Elements

Deck, Pavers

Line Item: 6.200

Quantity: 10,000 square feet which includes the patio area

History: Original

Condition: Good condition with isolated settlement evident

Narrative throughout report reduced for brevity



Pool overview



Deck pavers



Deck pavers

Useful Life: Up to 25 years

Component Detail Notes: Soil movement and water infiltration underneath the pool decks can cause significant settlement of the surrounding pavers. The pool deck should also be free of trip hazards for the safety of residents and their guests.

Preventative Maintenance Notes: We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
 - Inspect and repair settlement, trip hazards and significant paver spall
 - Reset and/or reseal damaged pavers as necessary
 - Periodically clean and remove overgrown vegetation as needed

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Narrative throughout report reduced for brevity

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We suggest the Association conduct interim resetting and replacement of minor areas of pavers as normal maintenance, funded from the operating budget.

Furniture

Line Item: 6.500

Quantity:

- Chairs
- Lounges
- Tables
- Ladders and life safety equipment

History: Varied

Condition: Good to fair overall



Pool area furniture



Pool furniture

Useful Life: Up to 12 years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend interim re-strapping, refinishing, cushion replacements, reupholstering and other repairs to the furniture as normal maintenance to maximize its useful life.

Narrative throughout report reduced for brevity

Garage Elements

Concrete, Coatings

Line Items: 7.300 and 7.340

Quantity: The parking garage includes eight floors of garage parking adjacent to the building. The upper floor is exposed to the elements and comprises approximately 30,000 square feet and the remaining floors comprise approximately 200,000 square feet.

History: Management informs us the Association applied a corrosion inhibitor to the first through seventh floors in 2018. Management also informs us the Association applied a deck coating system on the eighth floor.

Condition: Good overall. We note coating deterioration at the eighth floor.



Parking garage



Parking garage

Useful Life: Four- to six-years for the corrosion inhibitor and deck coating

Component Detail Notes: In our experience, active periodic maintenance and protection with a traffic coating on elevated concrete structures results in a longer useful life, safer operation and a lower overall life cycle cost. Failure to maintain a traffic coating on elevated floors will result in accelerated concrete deterioration at concrete ceilings below the elevated floors and a higher overall capital investment in the parking structure over time.

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Expenditures assume:

- Preparation of the concrete surface
- Application of a corrosion inhibitor to the first through seventh floors

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- Application of a urethane base coat, intermediate aggregate coating and top coat to the eighth floor
- Parking and directional line striping as needed

Our estimates of costs for the corrosion inhibitor and deck coating system are based on historical information provided by Management.

Concrete, Inspections and Capital Repairs

Line Item: 7.360

Quantity: The parking garage includes eight floors that comprise 230,000 square feet of concrete. The eighth floor is exposed to the elements and comprises 30,000 square feet and the first through seventh floors comprise 200,000 square feet of concrete.

Condition: Good overall

Useful Life: Up to 90 years

Preventative Maintenance Notes: We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Semi-annually:
 - Clean floors and remove vehicular oil stains
- Annually:
 - Inspect for large cracks, concrete spalls and vehicular damage at walls and columns
 - Verify drains are working properly and check for areas of extensive water ponding
 - Check for any signs of exposed rebar

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Expenditures assume:

- Complete inspection of all concrete surfaces
- Partial depth replacement of less than one percent (0.5%) of the surface area of the elevated concrete floors
- Partial depth replacement of less than one percent (0.5%) of the surface area of the elevated structural concrete ceiling
- Partial concrete replacement of up to ten percent (10%) of the surface area of the on-grade concrete floor.
- Crack repairs on all surfaces as needed
- Partial replacement of the joint sealants as needed

Narrative throughout report reduced for brevity

Marina Elements

Pavers, Masonry

Line Item: 8.950

Quantity: 2,520 square feet

History: Original

Condition: Good to fair overall with displacement and settlement evident.



Paver walkway



Displaced and settled pavers

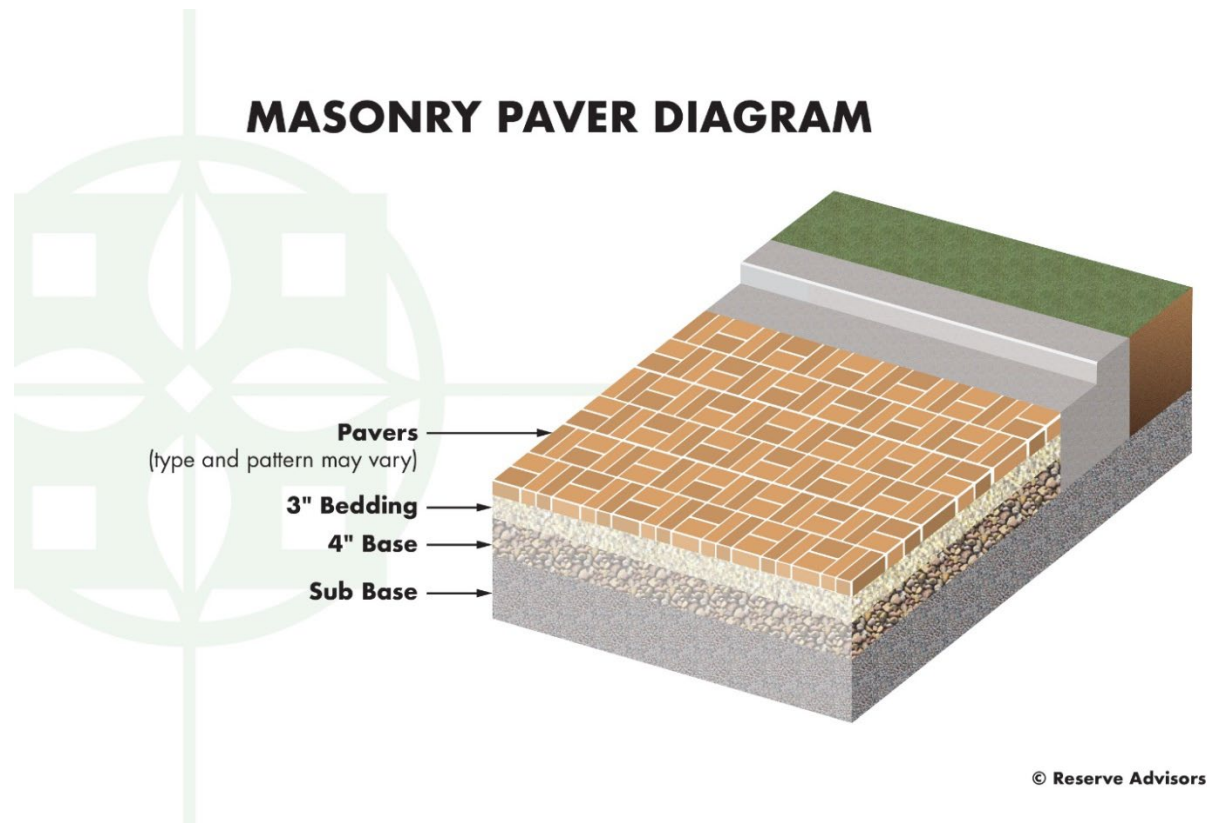


Displaced and settled pavers

Useful Life: Up to 25 years

Narrative throughout report reduced for brevity

Component Detail Notes: The following diagram depicts the components of a masonry paver system:



Preventative Maintenance Notes: We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
 - Inspect and repair settlement, trip hazards and paver spalls at heavy traffic areas
 - Re-set and/or reseal damaged pavers as necessary
 - Periodically clean and remove overgrown vegetation as needed

Priority/Criticality: Not recommended to defer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We suggest the Association conduct interim resetting and replacement of minor areas of pavers as normal maintenance, funded from the operating budget.

Narrative throughout report reduced for brevity

Reserve Study Update

An ongoing review by the Board and an Update of this Reserve Study are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in time. Many variables change after the study is conducted that may result in significant overfunding or underfunding the reserve account. Variables that may affect the Reserve Funding Plan include, but are not limited to:

- Deferred or accelerated capital projects based on Board discretion
- Changes in the interest rates on reserve investments
- Changes in the *local* construction inflation rate
- Additions and deletions to the Reserve Component Inventory
- The presence or absence of maintenance programs
- Unusually mild or extreme weather conditions
- Technological advancements

Periodic updates incorporate these variable changes since the last Reserve Study or Update. We recommend the Board budget for an Update to this Reserve Study every three years. Budgeting for an Update demonstrates the Board's objective to continue fulfilling its fiduciary responsibility to maintain the commonly owned property and to fund reserves appropriately.

Narrative throughout report reduced for brevity

5.METHODOLOGY

Reserves for replacement are the amounts of money required for future expenditures to repair or replace Reserve Components that wear out before the entire facility or project wears out. Reserving funds for future repair or replacement of the Reserve Components is also one of the most reliable ways of protecting the value of the property's infrastructure and marketability.

Sample can fund capital repairs and replacements in any combination of the following:

1. Increases in the operating budget during years when the shortages occur
2. Loans using borrowed capital for major replacement projects
3. Level monthly reserve assessments annually adjusted upward for inflation to increase reserves to fund the expected major future expenditures
4. Special assessments

We do not advocate special assessments or loans unless near term circumstances dictate otherwise. Although loans provide a gradual method of funding a replacement, the costs are higher than if the Association were to accumulate reserves ahead of the actual replacement. Interest earnings on reserves also accumulate in this process of saving or reserving for future replacements, thereby defraying the amount of gradual reserve collections. We advocate the third method of *Level Monthly Reserve Assessments* with relatively minor annual adjustments. The method ensures that Owners pay their "fair share" of the weathering and aging of the commonly owned property each year. Level reserve assessments preserve the property and enhance the resale value of the homes.

This Reserve Study is in compliance with and exceeds the National standards¹ set forth by the Association of Professional Reserve Analysts (APRA) fulfilling the requirements of a "Level I Full Reserve Study." These standards require a Reserve Component to have a "predictable remaining Useful Life." Estimating Remaining Useful Lives and Reserve Expenditures beyond 30 years is often indeterminate. Long-Lived Property Elements are necessarily excluded from this analysis. We considered the following factors in our analysis:

- The Cash Flow Method to compute, project and illustrate the 30-year Reserve Funding Plan
- Local² costs of material, equipment and labor
- Current and future costs of replacement for the Reserve Components
- Costs of demolition as part of the cost of replacement
- Local economic conditions and a historical perspective to arrive at our estimate of long-term future inflation for construction costs in Chicago, Illinois at an annual inflation rate³. Isolated or regional markets of greater

¹ Identified in the APRA "Standards - Terms and Definitions" and the CAI "Terms and Definitions".

² See Credentials for additional information on our use of published sources of cost data.

³ Derived from Marshall & Swift, historical costs and the Bureau of Labor Statistics.

construction (development) activity may experience slightly greater rates of inflation for both construction materials and labor.

- The past and current maintenance practices of Sample and their effects on remaining useful lives
- Financial information provided by the Association pertaining to the cash status of the reserve fund and budgeted reserve contribution
- The anticipated effects of appreciation of the reserves over time in accord with a return or yield on investment of your cash equivalent assets. (We did not consider the costs, if any, of Federal and State Taxes on income derived from interest and/or dividend income).
- The Funding Plan excludes necessary operating budget expenditures. It is our understanding that future operating budgets will provide for the ongoing normal maintenance of Reserve Components.

Updates to this Reserve Study will continue to monitor historical facts and trends concerning the external market conditions.

6. CREDENTIALS

HISTORY AND DEPTH OF SERVICE

Founded in 1991, Reserve Advisors is the leading provider of reserve studies, insurance appraisals, developer turnover transition studies, expert witness services, and other engineering consulting services. Clients include community associations, resort properties, hotels, clubs, non-profit organizations, apartment building owners, religious and educational institutions, and office/commercial building owners in 48 states, Canada and throughout the world.

The **architectural engineering consulting firm** was formed to take a leadership role in helping fiduciaries, boards, and property managers manage their property like a business with a long-range master plan known as a Reserve Study.

Reserve Advisors employs the **largest staff of Reserve Specialists** with bachelor's degrees in engineering dedicated to Reserve Study services. Our founders are also founders of Community Associations Institute's (CAI) Reserve Committee that developed national standards for reserve study providers. One of our founders is a Past President of the Association of Professional Reserve Analysts (APRA). Our vast experience with a variety of building types and ages, on-site examination and historical analyses are keys to determining accurate remaining useful life estimates of building components.

No Conflict of Interest - As consulting specialists, our **independent opinion** eliminates any real or perceived conflict of interest because we do not conduct or manage capital projects.

TOTAL STAFF INVOLVEMENT

Several staff members participate in each assignment. The responsible advisor involves the staff through a Team Review, exclusive to Reserve Advisors, and by utilizing the experience of other staff members, each of whom has served hundreds of clients. We conduct Team Reviews, an internal quality assurance review of each assignment, including: the inspection; building component costing; lifing; and technical report phases of the assignment. Due to our extensive experience with building components, we do not have a need to utilize subcontractors.

OUR GOAL

To help our clients fulfill their fiduciary responsibilities to maintain property in good condition.

VAST EXPERIENCE WITH A VARIETY OF BUILDINGS

Reserve Advisors has conducted reserve studies for a multitude of different communities and building types. We've analyzed thousands of buildings, from as small as a 3,500-square foot day care center to a 2,600,000-square foot 98-story highrise. We also routinely inspect buildings with various types of mechanical systems such as simple electric heat, to complex systems with air handlers, chillers, boilers, elevators, and life safety and security systems.

We're familiar with all types of building exteriors as well. Our well-versed staff regularly identifies optimal repair and replacement solutions for such building exterior surfaces such as adobe, brick, stone, concrete, stucco, EIFS, wood products, stained glass and aluminum siding, and window wall systems.

OLD TO NEW

Reserve Advisors' experience includes ornate and vintage buildings as well as modern structures. Our specialists are no strangers to older buildings. We're accustomed to addressing the unique challenges posed by buildings that date to the 1800's. We recognize and consider the methods of construction employed into our analysis. We recommend appropriate replacement programs that apply cost effective technologies while maintaining a building's character and appeal.



RESOURCES

Reserve Advisors utilizes numerous resources of national and local data to conduct its Professional Services. A concise list of several of these resources follows:

Association of Construction Inspectors, (ACI) the largest professional organization for those involved in construction inspection and construction project management. ACI is also the leading association providing standards, guidelines, regulations, education, training, and professional recognition in a field that has quickly become important procedure for both residential and commercial construction, found on the web at www.iami.org.

American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., (ASHRAE) the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., devoted to the arts and sciences of heating, ventilation, air conditioning and refrigeration; recognized as the foremost, authoritative, timely and responsive source of technical and educational information, standards and guidelines, found on the web at www.ashrae.org. Reserve Advisors actively participates in its local chapter and holds individual memberships.

Community Associations Institute, (CAI) America's leading advocate for responsible communities noted as the only national organization dedicated to fostering vibrant, responsive, competent community associations. Their mission is to assist community associations in promoting harmony, community, and responsible leadership.

Marshall & Swift / Boeckh, (MS/B) the worldwide provider of building cost data, co-sourcing solutions, and estimating technology for the property and casualty insurance industry found on the web at www.marshallswift.com.

R.S. Means CostWorks, North America's leading supplier of construction cost information. As a member of the Construction Market Data Group, Means provides accurate and up-to-date cost information that helps owners, developers, architects, engineers, contractors and others to carefully and precisely project and control the cost of both new building construction and renovation projects found on the web at www.rsmeans.com.

Reserve Advisors' library of numerous periodicals relating to reserve studies, condition analyses, chapter community associations, and historical costs from thousands of capital repair and replacement projects, and product literature from manufacturers of building products and building systems.

7. DEFINITIONS

Definitions are derived from the standards set forth by the Community Associations Institute (CAI) representing America's 305,000 condominium and homeowners associations and cooperatives, and the Association of Professional Reserve Analysts, setting the standards of care for reserve study practitioners.

Cash Flow Method - A method of calculating Reserve Contributions where contributions to the reserve fund are designed to offset the variable annual expenditures from the reserve fund. Different Reserve Funding Plans are tested against the anticipated schedule of reserve expenses until the desired funding goal is achieved.

Component Method - A method of developing a Reserve Funding Plan with the total contribution is based on the sum of the contributions for individual components.

Current Cost of Replacement - That amount required today derived from the quantity of a *Reserve Component* and its unit cost to replace or repair a Reserve Component using the most current technology and construction materials, duplicating the productive utility of the existing property at current *local* market prices for *materials*, *labor* and manufactured equipment, contractors' overhead, profit and fees, but without provisions for building permits, overtime, bonuses for labor or premiums for material and equipment. We include removal and disposal costs where applicable.

Fully Funded Balance - The Reserve balance that is in direct proportion to the fraction of life "used up" of the current Repair or Replacement cost similar to Total Accrued Depreciation.

Funding Goal (Threshold) - The stated purpose of this Reserve Study is to determine the adequate, not excessive, minimal threshold reserve balances.

Future Cost of Replacement - *Reserve Expenditure* derived from the inflated current cost of replacement or current cost of replacement as defined above, with consideration given to the effects of inflation on local market rates for materials, labor and equipment.

Long-Lived Property Component - Property component of Sample responsibility not likely to require capital repair or replacement during the next 30 years with an unpredictable remaining Useful Life beyond the next 30 years.

Percent Funded - The ratio, at a particular point of time (typically the beginning of the Fiscal Year), of the actual (or projected) Reserve Balance to the Fully Funded Balance, expressed as a percentage.

Remaining Useful Life - The estimated remaining functional or useful time in years of a *Reserve Component* based on its age, condition and maintenance.

Reserve Component - Property elements with: 1) Sample responsibility; 2) limited Useful Life expectancies; 3) predictable Remaining Useful Life expectancies; and 4) a replacement cost above a minimum threshold.

Reserve Component Inventory - Line Items in *Reserve Expenditures* that identify a *Reserve Component*.

Reserve Contribution - An amount of money set aside or *Reserve Assessment* contributed to a *Reserve Fund* for future *Reserve Expenditures* to repair or replace *Reserve Components*.

Reserve Expenditure - Future Cost of Replacement of a Reserve Component.

Reserve Fund Status - The accumulated amount of reserves in dollars at a given point in time, i.e., at year end.

Reserve Funding Plan - The portion of the Reserve Study identifying the *Cash Flow Analysis* and containing the recommended Reserve Contributions and projected annual expenditures, interest earned and reserve balances.

Reserve Study - A budget planning tool that identifies the current status of the reserve fund and a stable and equitable Funding Plan to offset the anticipated future major common area expenditures.

Useful Life - The anticipated total time in years that a *Reserve Component* is expected to serve its intended function in its present application or installation.

8. PROFESSIONAL SERVICE CONDITIONS

Our Services - Reserve Advisors, LLC ("RA") performs its services as an independent contractor in accordance with our professional practice standards and its compensation is not contingent upon our conclusions. The purpose of our reserve study is to provide a budget planning tool that identifies the current status of the reserve fund, and an opinion recommending an annual funding plan, to create reserves for anticipated future replacement expenditures of the subject property. The purpose of our energy benchmarking services is to track, collect and summarize the subject property's energy consumption over time for your use in comparison with other buildings of similar size and establishing a performance baseline for your planning of long-term energy efficiency goals.

Our inspection and analysis of the subject property is limited to visual observations, is noninvasive and is not meant to nor does it include investigation into statutory, regulatory or code compliance. RA inspects sloped roofs from the ground and inspects flat roofs where safe access (stairs or ladder permanently attached to the structure) is available. Our energy benchmarking services with respect to the subject property is limited to collecting energy and utility data and summarizing such data in the form of an Energy Star Portfolio Manager Report or any other similar report, and hereby expressly excludes any recommendations with respect to the results of such energy benchmarking services or the accuracy of the energy information obtained from utility companies and other third-party sources with respect to the subject property. The reserve report and any energy benchmarking report (i.e., any Energy Star Portfolio Manager Report) (including any subsequent revisions thereto pursuant to the terms hereof, collectively, the "Report") are based upon a "snapshot in time" at the moment of inspection. RA may note visible physical defects in the Report. The inspection is made by employees generally familiar with real estate and building construction. Except to the extent readily apparent to RA, RA cannot and shall not opine on the structural integrity of or other physical defects in the property under any circumstances. Without limitation to the foregoing, RA cannot and shall not opine on, nor is RA responsible for, the property's conformity to specific governmental code requirements for fire, building, earthquake, occupancy or otherwise.

RA is not responsible for conditions that have changed between the time of inspection and the issuance of the Report. RA does not provide invasive testing on any mechanical systems that provide energy to the property, nor can RA opine on any system components that are not easily accessible during the inspection. RA does not investigate, nor assume any responsibility for any existence or impact of any hazardous materials, such as asbestos, urea-formaldehyde foam insulation, other chemicals, toxic wastes, environmental mold or other potentially hazardous materials or structural defects that are latent or hidden defects which may or may not be present on or within the property. RA does not make any soil analysis or geological study as part of its services, nor does RA investigate vapor, water, oil, gas, coal, or other subsurface mineral and use rights or such hidden conditions, and RA assumes no responsibility for any such conditions. The Report contains opinions of estimated replacement costs or deferred maintenance expenses and remaining useful lives, which are neither a guarantee of the actual costs or expenses of replacement or deferred maintenance nor a guarantee of remaining useful lives of any property element.

RA assumes, without independent verification, the accuracy of all data provided to it. Except to the extent resulting from RA's willful misconduct in connection with the performance of its obligations under this agreement, you agree to indemnify, defend, and hold RA and its affiliates, officers, managers, employees, agents, successors and assigns (each, an "RA Party") harmless from and against (and promptly reimburse each RA Party for) any and all losses, claims, actions, demands, judgments, orders, damages, expenses or liabilities, including, without limitation, reasonable attorneys' fees, asserted against or to which any RA Party may become subject in connection with this engagement, including, without limitation, as a result of any false, misleading or incomplete information which RA relied upon that was supplied by you or others under your direction, or which may result from any improper use or reliance on the Report by you or third parties under your control or direction or to whom you provided the Report. NOTWITHSTANDING ANY OTHER PROVISION HEREIN TO THE CONTRARY, THE AGGREGATE LIABILITY (IF ANY) OF RA WITH RESPECT TO THIS AGREEMENT AND RA'S OBLIGATIONS HEREUNDER IS LIMITED TO THE AMOUNT OF THE FEES ACTUALLY RECEIVED BY RA FROM YOU FOR THE SERVICES AND REPORT PERFORMED BY RA UNDER THIS AGREEMENT, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE. YOUR REMEDIES SET FORTH HEREIN ARE EXCLUSIVE AND ARE YOUR SOLE REMEDIES FOR ANY FAILURE OF RA TO COMPLY WITH ITS OBLIGATIONS HEREUNDER OR OTHERWISE. RA SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES OF ANY KIND, INCLUDING, BUT NOT LIMITED TO, ANY LOST PROFITS AND LOST SAVINGS, LOSS OF USE OR INTERRUPTION OF BUSINESS, HOWEVER CAUSED, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE), BREACH OF WARRANTY, STRICT LIABILITY OR OTHERWISE, EVEN IF RA HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT WILL RA BE LIABLE FOR THE COST OF PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES. RA DISCLAIMS ALL REPRESENTATIONS AND WARRANTIES WHATSOEVER, EXPRESS OR IMPLIED OR OF ANY NATURE, WITH REGARD TO THE SERVICES AND THE REPORT, INCLUDING, WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Report - RA will complete the services in accordance with the Proposal. The Report represents a valid opinion of RA's findings and recommendations with respect to the reserve study and is deemed complete. RA will consider any additional information made available to RA within 6 months of issuing the Report and issue a revised Report based on such additional information if a timely request for a revised Report is made by you. RA retains the right to withhold a revised Report if payment for services was not tendered in a timely manner. All information received by RA and all files, work papers or documents developed by RA during the course of the engagement shall remain the property of



RA and may be used for whatever purpose it sees fit. RA reserves the right to, and you acknowledge and agree that RA may, use any data provided by you in connection with the services, or gathered as a result of providing such services, including in connection with creating and issuing any Report, in a de-identified and aggregated form for RA's business purposes.

Your Obligations - You agree to provide us access to the subject property for an inspection. You agree to provide RA all available, historical and budgetary information, the governing documents, and other information that we request and deem necessary to complete the Report. Additionally, you agree to provide historical replacement schedules, utility bills and historical energy usage files that RA requests and deems necessary to complete the energy benchmarking services, and you agree to provide any utility release(s) reasonably requested by RA permitting RA to obtain any such data and/or information from any utility representative or other third party. You agree to pay actual attorneys' fees and any other costs incurred to collect on any unpaid balance for RA's services.

Use of Our Report and Your Name - Use of the Report is limited to only the purpose stated herein. You acknowledge that RA is the exclusive owner of all intellectual property rights in and relating to the Report. You hereby acknowledge that any use or reliance by you on the Report for any unauthorized purpose is at your own risk and that you will be liable for the consequences of any unauthorized use or distribution of the Report. Use or possession of the Report by any unauthorized third party is prohibited. The Report in whole or in part ***is not and cannot be used as a design specification for design engineering purposes or as an appraisal.*** You may show the Report in its entirety to the following third parties: members of your organization (including your directors, officers, tenants and prospective purchasers), your accountants, attorneys, financial institutions and property managers who need to review the information contained herein, and any other third party who has a right to inspect the Report under applicable law including, but not limited to, any government entity or agency, or any utility companies. Without the written consent of RA, you shall not disclose the Report to any other third party. By engaging our services, you agree that the Report contains intellectual property developed (and owned solely) by RA and agree that you will not reproduce or distribute the Report ***to any party that conducts reserve studies without the written consent of RA.***

RA will include (and you hereby agree that RA may include) your name in our client lists. RA reserves the right to use (and you hereby agree that RA may use) property information to obtain estimates of replacement costs, useful life of property elements or otherwise as RA, in its sole discretion, deems appropriate.

Payment Terms, Due Dates and Interest Charges - If reserve study and energy benchmarking services are performed by RA, then the retainer payment is due upon execution of this agreement and prior to the inspection by RA, and any balance is due net 30 days from the Report shipment date. If only energy benchmarking services are performed by RA, then the retainer payment is due upon execution of this agreement and any balance is due net 30 days from the Report shipment date. In any case, any balance remaining 30 days after delivery of the Report shall accrue an interest charge of 1.5% per month. Unless this agreement is earlier terminated by RA in the event you breach or otherwise fail to comply with your obligations under this agreement, RA's obligations under this agreement shall commence on the date you execute and deliver this agreement and terminate on the date that is 6 months from the date of delivery of the Report by RA. Notwithstanding anything herein to the contrary, each provision that by its context and nature should survive the expiration or early termination of this agreement shall so survive, including, without limitation, any provisions with respect to payment, intellectual property rights, limitations of liability and governing law. We reserve the right to limit or decline refunds in our sole discretion. Refunds vary based on the applicable facts and circumstances.

Miscellaneous – Neither party shall be liable for any failures or delays in performance due to fire, flood, strike or other labor difficulty, act of God, act of any governmental authority, riot, embargo, fuel or energy shortage, pandemic, wrecks or delays in transportation, or due to any other cause beyond such party's reasonable control; provided, however, that you shall not be relieved from your obligations to make any payment(s) to RA as and when due hereunder. In the event of a delay in performance due to any such cause, the time for completion or date of delivery will be extended by a period of time reasonably necessary to overcome the effect of such delay. You may not assign or otherwise transfer this agreement, in whole or in part, without the prior written consent of RA. RA may freely assign or otherwise transfer this agreement, in whole or in part, without your prior consent. This agreement shall be governed by the laws of the State of Wisconsin without regard to any principles of conflicts of law that would apply the laws of another jurisdiction. Any dispute with respect to this agreement shall be exclusively venued in Milwaukee County Circuit Court or in the United States District Court for the Eastern District of Wisconsin. Each party hereto agrees and hereby waives the right to a trial by jury in any action, proceeding or claim brought by or on behalf of the parties hereto with respect to any matter related to this agreement.