

Heatherstone Homeowners' Association, Inc.

January 16, 2024 • Batavia, OH

FULL RESERVE STUDY



Long-term thinking. Everyday commitment.

Heatherstone Homeowners' Association, Inc.
Batavia, Ohio

Dear Board of Directors of Heatherstone Homeowners' Association, Inc.:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Full Reserve Study* of Heatherstone Homeowners' Association, Inc. in Batavia, Ohio and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, January 16, 2024.

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 Heatherstone Homeowners' Association, Inc. 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 26, 2024 by

Reserve Advisors, LLC

Visual Inspection and Report by: Matthew C. Ferguson, RS¹
Review by: Justin B. Klein, RS, Great Lakes Quality Assurance Engineer
Alan M. Ebert, RS, PRA², Director of Quality Assurance



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: Heatherstone Homeowners' Association, Inc. (Heatherstone)

Location: Batavia, Ohio

Reference: 101423

Property Basics: Heatherstone Homeowners' Association, Inc. is responsible for the common elements shared by 48 single family homes. The community was built in 1978. The community contains a clubhouse and pool.

Reserve Components Identified: 32 Reserve Components.

Inspection Date: January 16, 2024.

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 these threshold funding years in 2026 due to the replacement of the sport courts and fences, in 2030 due to the sediment removal of the pond, and in 2052 due to the renovation of the clubhouse.

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
- 2.0% anticipated annual rate of return on invested reserves
- 3.5% 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:

- \$96,769 as of December 31, 2023
- 2024 budgeted Reserve Contributions of \$26,300
- A potential deficit in reserves might occur by 2026 based upon continuation of the most recent annual reserve contribution of \$26,300 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:

- Renovation of the sport courts and fence
- Replacement of the pool deck
- Repaving due to noted deterioration
- Renovations at the clubhouse

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

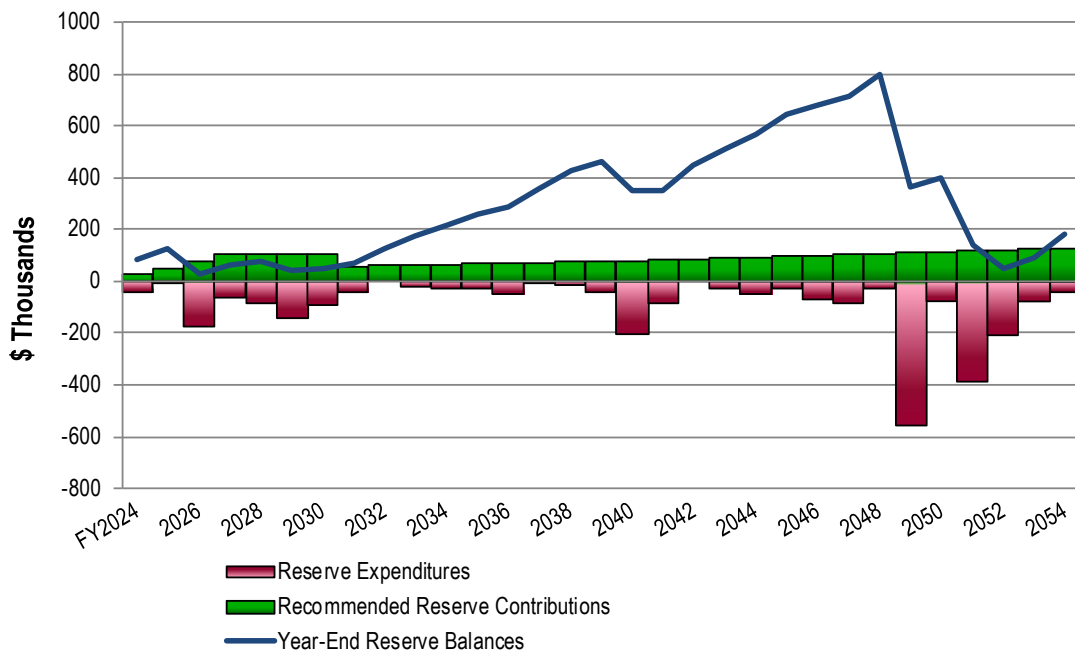
- Phased increases of \$25,000 from 2025 through 2027
- Stable contributions of \$101,300 from 2028 through 2030
- Decrease to \$58,000 by 2031 due to fully funding for repaving of the asphalt pavement
- Inflationary increases thereafter through 2054, the limit of this study's Cash Flow Analysis



- Initial adjustment in Reserve Contributions of \$25,000 represents an average monthly increase of \$43.40 per owner and about a twenty percent (19.6%) adjustment in the 2024 total Operating Budget of \$127,620.
- These recommended Reserve Contributions ensure that each owner funds their use of the Association maintained elements annually. The actual Reserve Contributions approved by the Board may vary based on factors external to the Reserve Study such as the financial impact on unit owners, desire to utilize funding mechanisms other than reserves and the market value of the units. We include stepped or phased annual increases in the Reserve Contribution based on the current financial conditions of the Association, significant recommended Reserve Contributions and the critical Reserve Balances. Any phase in the required Reserve Contribution increase defers the cost burden to future owners. We therefore limit the number of phased increases to limit the deferred cost burden to future owners. We opine this funding method adheres to APRA Standards of Practice which state in part "... any Funding Plan shall meet the Following Funding Principles: Sufficient funds when required, stable contribution rate over the years, evenly distributed contributions over the years, and fiscally responsible."

Heatherstone
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2025	51,300	125,216	2035	66,600	260,242	2045	94,100	640,561
2026	76,300	23,754	2036	68,900	284,672	2046	97,400	680,704
2027	101,300	63,273	2037	71,300	355,357	2047	100,800	710,341
2028	101,300	78,767	2038	73,800	422,288	2048	104,300	798,758
2029	101,300	38,947	2039	76,400	463,691	2049	108,000	360,749
2030	101,300	48,761	2040	79,100	345,290	2050	111,800	400,668
2031	58,000	65,910	2041	81,900	350,728	2051	115,700	136,074
2032	60,000	127,828	2042	84,800	443,391	2052	119,700	45,337
2033	62,100	173,222	2043	87,800	509,869	2053	123,900	92,103
2034	64,300	215,272	2044	90,900	564,607	2054	128,200	180,904





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

Heatherstone Homeowners' Association, Inc.

Batavia, Ohio

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, January 16, 2024.

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. The Expenditure tables in Section 3 list the elements contained in this study. Our analysis begins by segregating the property elements into several areas of responsibility for repair and replacement.

Our process of identification helps assure that future boards and the management team understand whether reserves, the operating budget or Owners fund 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. The Reserve Study identifies Reserve Components as set forth in your Declaration or which were identified as part of your request for proposed services. Reserve Components are defined by CAI as property elements with:

- Heatherstone 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
Heatherstone
Homeowners' Association, Inc.
Batavia, Ohio

Operating Budget Components

Repairs normally funded through the Operating Budget and Expenditures less than \$3,500 (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.

- Balcony, Interim Deck Board Replacement and Structural Repairs
- Basketball Goals
- Catch Basins, Landscape
- Exercise Equipment¹
- Exercise Room, Paint Finishes
- Exercise Room, Rubber Floor
- Flagpole
- Landscape, Maintenance
- Light Fixtures, Exterior
- Light Poles and Fixtures¹
- Paint Finishes, Touch Up
- Party Room, Game Replacements, Interim
- Pedestrian Bridge
- Pool Cover
- Retaining Wall, Masonry
- Security System
- Site Furniture
- Tennis Standards
- Walls, Facade, Masonry
- Walls, Trim, Paint Finishes and Repairs

¹ Replacement as-needed in lieu of an aggregate replacement

Excluded Components

for
Heatherstone
Homeowners' Association, Inc.
Batavia, Ohio

Long-Lived Components		
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, Clubhouse	Indeterminate	N/A
• Foundation, Clubhouse	Indeterminate	N/A
• Pipes, Interior Building, Domestic Water, Sanitary Waste, Clubhouse	Indeterminate	N/A
• Pipes, Subsurface Utilities	Indeterminate	N/A
• Pool Deck and Structure (2024)	to 60	\$250,000
• Structural Frame, Clubhouse	Indeterminate	N/A

Owners Responsibility Components
Certain items have been designated as the responsibility of the Owners to repair or replace at their cost, including items billed back.
• Concrete Driveways
• Concrete Sidewalks, Unit
• Fences
• Interiors and Exteriors
• Patios

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
- 2024 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

**Heatherstone
Homeowners' Association, Inc.**
Batavia, Ohio

Explanatory Notes:

- 1) **3.5%** is the estimated Inflation Rate for estimating Future Replacement Costs.
- 2) **FY2024** is Fiscal Year beginning January 1, 2024 and ending December 31, 2024.

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 FY2024	1 2025	2 2026	3 2027	4 2028	5 2029	6 2030	7 2031	8 2032	9 2033	10 2034	11 2035	12 2036	13 2037	14 2038	15 2039
						Useful	Remaining	Unit (2024)	Per Phase (2024)	Total (2024)																	
Property Site Elements																											
4.020	6,350	6,350	Square Yards	Asphalt Pavement, Crack Repair and Patch	2025	3 to 5	1	0.70	4,445	4,445	1.7%	4,601									6,058				6,952		
4.040	6,350	6,350	Square Yards	Asphalt Pavement, Mill and Overlay, Streets	2029	15 to 20	5	18.00	114,300	114,300	4.9%					135,753											
4.045	6,350	6,350	Square Yards	Asphalt Pavement, Total Replacement, Streets	2049	15 to 20	25	36.50	231,775	231,775	19.7%																
4.140	4,700	310	Square Feet	Concrete Sidewalks, Partial	2025	to 65	1 to 30+	12.00	3,720	56,400	1.3%	3,850					4,573						5,431				
4.500	1	1	Allowance	Landscape, Partial Replacements	2026	to 5	2	10,000.00	10,000	10,000	3.7%		10,712					12,723						15,111			
4.600	10	10	Each	Mailbox Stations	2030	to 25	6	1,000.00	10,000	10,000	0.4%						12,293										
4.650	1	1	Allowance	Pipes, Subsurface Utilities	2033	to 85+	9	10,000.00	10,000	10,000	3.0%									13,629							
4.660	1	1	Allowance	Playground Equipment	2039	15 to 20	15	22,000.00	22,000	22,000	1.3%															36,858	
4.700	1	1	Each	Pond, Aerator	2038	10 to 15	14	9,000.00	9,000	9,000	1.4%															14,568	
4.710	920	140	Linear Feet	Pond, Erosion Control, Partial	2030	to 15	6	46.00	6,440	42,320	0.8%						7,916										
4.730	4,560	1,140	Square Yards	Pond, Sediment Removal, Partial	2030	to 30	6	23.00	26,220	104,880	1.2%						32,231										
4.800	1	1	Allowance	Signage, Renovation	2027	15 to 20	3	10,000.00	10,000	10,000	1.2%			11,087													
4.830	600	600	Square Yards	Sport Court, Basketball, Color Coat	2031	4 to 6	7	11.50	6,900	6,900	1.7%								8,779					10,426			
4.831	1,400	1,400	Square Yards	Sport Courts, Tennis, Color Coat	2031	4 to 6	7	11.50	16,100	16,100	3.9%								20,484					24,328			
4.840	660	660	Linear Feet	Sport Court, Fence	2026	to 25	2	52.00	34,320	34,320	4.4%		36,764														
4.860	600	600	Square Yards	Sport Court, Basketball, Surface Replacement	2026	to 25	2	54.00	32,400	32,400	4.2%		34,708														
4.861	1,400	1,400	Square Yards	Sport Courts, Tennis, Surface Replacement	2026	to 25	2	54.00	75,600	75,600	9.8%		80,985														
Clubhouse Elements																											
5.120	1	1	Each	Balcony, Wood, Replacement	2028	to 35	4	15,000.00	15,000	15,000	0.6%					17,213											
5.500	1	1	Allowance	Clubhouse, Renovation, Complete	2028	to 25	4	61,000.00	61,000	61,000	8.3%					69,999											
5.510	1	1	Allowance	Clubhouse, Renovation, Partial	2040	to 12	16	45,500.00	45,500	45,500	2.8%																
5.515	1	1	System	HVAC, Split System	2043	15 to 20	19	6,000.00	6,000	6,000	0.4%																
5.520	1	1	Allowance	Kitchen, Renovation	2027	to 25	3	20,000.00	20,000	20,000	2.7%				22,174												
5.580	1	1	Allowance	Rest Rooms, Renovation	2027	to 20	3	23,000.00	23,000	23,000	2.7%				25,501												
5.600	50	50	Squares	Roof Assemblies, Asphalt Shingles	2030	15 to 20	6	575.00	28,750	28,750	3.8%						35,341										
5.860	6,300	6,300	Square Feet	Walls, Siding, Vinyl	2040	to 40	16	11.00	69,300	69,300	4.3%																
5.865	200	200	Square Feet	Windows and Doors	2026	to 40	2	75.00	15,000	15,000	0.6%		16,068														
Pool Elements																											
6.200	1,650	1,650	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs (2024 is Contracted)	2024	8 to 12	0	2.50	4,125	4,125	1.9%	35,600														6,911	
6.400	140	140	Linear Feet	Fence, Aluminum	2035	to 25	11	63.00	8,820	8,820	0.5%													12,877			
6.500	2	1	Allowance	Furniture, Phased	2029	to 12	5 to 11	5,500.00	5,500	11,000	1.8%					6,532								8,030			
6.600	2	1	Allowance	Mechanical Equipment, Phased	2027	to 15	3 to 10	3,500.00	3,500	7,000	0.8%				3,881								4,937				
6.800	750	750	Square Feet	Pool Finish, Plaster	2034	8 to 12	10	20.00	15,000	15,000	3.3%												21,159				
6.801	120	120	Linear Feet	Pool Finish, Tile (2024 is Contracted)	2024	15 to 25	0	71.00	8,520	8,520	0.9%	8,890															
Anticipated Expenditures, By Year (\$2,783,882 over 30 years)												44,490	8,451	179,237	62,643	87,212	142,285	92,354	41,986	0	19,687	26,096	26,338	49,865	6,952	14,568	43,769

RESERVE EXPENDITURES

**Heatherstone
Homeowners' Association, Inc.**
Batavia, Ohio

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$			Percentage of Future Expenditures	Years														
						Useful	Remaining	Unit (2024)	Per Phase (2024)	Total (2024)		16 2040	17 2041	18 2042	19 2043	20 2044	21 2045	22 2046	23 2047	24 2048	25 2049	26 2050	27 2051	28 2052	29 2053	30 2054
Property Site Elements																										
4.020	6,350	6,350	Square Yards	Asphalt Pavement, Crack Repair and Patch	2025	3 to 5	1	0.70	4,445	4,445	1.7%		7,977			9,154									12,054	
4.040	6,350	6,350	Square Yards	Asphalt Pavement, Mill and Overlay, Streets	2029	15 to 20	5	18.00	114,300	114,300	4.9%															
4.045	6,350	6,350	Square Yards	Asphalt Pavement, Total Replacement, Streets	2049	15 to 20	25	36.50	231,775	231,775	19.7%													547,741		
4.140	4,700	310	Square Feet	Concrete Sidewalks, Partial	2025	to 65	1 to 30+	12.00	3,720	56,400	1.3%	6,450				7,661								9,099		
4.500	1	1	Allowance	Landscape, Partial Replacements	2026	to 5	2	10,000.00	10,000	10,000	3.7%		17,947				21,315								25,316	
4.600	10	10	Each	Mailbox Stations	2030	to 25	6	1,000.00	10,000	10,000	0.4%															
4.650	1	1	Allowance	Pipes, Subsurface Utilities	2033	to 85+	9	10,000.00	10,000	10,000	3.0%														27,119	
4.660	1	1	Allowance	Playground Equipment	2039	15 to 20	15	22,000.00	22,000	22,000	1.3%															
4.700	1	1	Each	Pond, Aerator	2038	10 to 15	14	9,000.00	9,000	9,000	1.4%														24,407	
4.710	920	140	Linear Feet	Pond, Erosion Control, Partial	2030	to 15	6	46.00	6,440	42,320	0.8%						13,263									
4.730	4,560	1,140	Square Yards	Pond, Sediment Removal, Partial	2030	to 30	6	23.00	26,220	104,880	1.2%															
4.800	1	1	Allowance	Signage, Renovation	2027	15 to 20	3	10,000.00	10,000	10,000	1.2%														22,061	
4.830	600	600	Square Yards	Sport Court, Basketball, Color Coat	2031	4 to 6	7	11.50	6,900	6,900	1.7%		12,383												14,707	
4.831	1,400	1,400	Square Yards	Sport Courts, Tennis, Color Coat	2031	4 to 6	7	11.50	16,100	16,100	3.9%		28,894													34,317
4.840	660	660	Linear Feet	Sport Court, Fence	2026	to 25	2	52.00	34,320	34,320	4.4%														86,883	
4.860	600	600	Square Yards	Sport Court, Basketball, Surface Replacement	2026	to 25	2	54.00	32,400	32,400	4.2%														82,023	
4.861	1,400	1,400	Square Yards	Sport Courts, Tennis, Surface Replacement	2026	to 25	2	54.00	75,600	75,600	9.8%														191,386	
Clubhouse Elements																										
5.120	1	1	Each	Balcony, Wood, Replacement	2028	to 35	4	15,000.00	15,000	15,000	0.6%															
5.500	1	1	Allowance	Clubhouse, Renovation, Complete	2028	to 25	4	61,000.00	61,000	61,000	8.3%														159,830	
5.510	1	1	Allowance	Clubhouse, Renovation, Partial	2040	to 12	16	45,500.00	45,500	45,500	2.8%	78,896														
5.515	1	1	System	HVAC, Split System	2043	15 to 20	19	6,000.00	6,000	6,000	0.4%														11,535	
5.520	1	1	Allowance	Kitchen, Renovation	2027	to 25	3	20,000.00	20,000	20,000	2.7%														52,403	
5.580	1	1	Allowance	Rest Rooms, Renovation	2027	to 20	3	23,000.00	23,000	23,000	2.7%														50,741	
5.600	50	50	Squares	Roof Assemblies, Asphalt Shingles	2030	15 to 20	6	575.00	28,750	28,750	3.8%														70,321	
5.860	6,300	6,300	Square Feet	Walls, Siding, Vinyl	2040	to 40	16	11.00	69,300	69,300	4.3%	120,165														
5.865	200	200	Square Feet	Windows and Doors	2026	to 40	2	75.00	15,000	15,000	0.6%															
Pool Elements																										
6.200	1,650	1,650	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs (2024 is Contracted)	2024	8 to 12	0	2.50	4,125	4,125	1.9%														9,748	
6.400	140	140	Linear Feet	Fence, Aluminum	2035	to 25	11	63.00	8,820	8,820	0.5%															
6.500	2	1	Allowance	Furniture, Phased	2029	to 12	5 to 11	5,500.00	5,500	11,000	1.8%		9,871												14,915	
6.600	2	1	Allowance	Mechanical Equipment, Phased	2027	to 15	3 to 10	3,500.00	3,500	7,000	0.8%		6,281												7,992	
6.800	750	750	Square Feet	Pool Finish, Plaster	2034	8 to 12	10	20.00	15,000	15,000	3.3%														29,847	
6.801	120	120	Linear Feet	Pool Finish, Tile (2024 is Contracted)	2024	15 to 25	0	71.00	8,520	8,520	0.9%														16,953	
Anticipated Expenditures, By Year (\$2,783,882 over 30 years)												205,511	83,353	0	30,760	46,800	30,078	70,339	84,936	30,825	557,489	79,420	385,608	212,233	78,495	42,102

RESERVE FUNDING PLAN

CASH FLOW ANALYSIS

Heatherstone
Homeowners' Association, Inc.

Batavia, Ohio

Individual Reserve Budgets & Cash Flows for the Next 30 Years

		FY2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Reserves at Beginning of Year	(Note 1)	96,769	80,332	125,216	23,754	63,273	78,767	38,947	48,761	65,910	127,828	173,222	215,272	260,242	284,672	355,357	422,288
Total Recommended Reserve Contributions	(Note 2)	26,300	51,300	76,300	101,300	101,300	101,300	101,300	58,000	60,000	62,100	64,300	66,600	68,900	71,300	73,800	76,400
Estimated Interest Earned, During Year	(Note 3)	1,753	2,035	1,475	862	1,406	1,165	868	1,135	1,918	2,981	3,846	4,708	5,395	6,337	7,699	8,772
Anticipated Expenditures, By Year		(44,490)	(8,451)	(179,237)	(62,643)	(87,212)	(142,285)	(92,354)	(41,986)	0	(19,687)	(26,096)	(26,338)	(49,865)	(6,952)	(14,568)	(43,769)
Anticipated Reserves at Year End		<u>\$80,332</u>	<u>\$125,216</u>	<u>\$23,754</u>	<u>\$63,273</u>	<u>\$78,767</u>	<u>\$38,947</u>	<u>\$48,761</u>	<u>\$65,910</u>	<u>\$127,828</u>	<u>\$173,222</u>	<u>\$215,272</u>	<u>\$260,242</u>	<u>\$284,672</u>	<u>\$355,357</u>	<u>\$422,288</u>	<u>\$463,691</u>
Predicted Reserves based on 2024 funding level of:	\$26,300	80,332	99,966	(52,501)	(90,257)												

(NOTE 5)

(NOTE 5)

(continued)

Individual Reserve Budgets & Cash Flows for the Next 30 Years, Continued

		2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054
Reserves at Beginning of Year		463,691	345,290	350,728	443,391	509,869	564,607	640,561	680,704	710,341	798,758	360,749	400,668	136,074	45,337	92,103
Total Recommended Reserve Contributions		79,100	81,900	84,800	87,800	90,900	94,100	97,400	100,800	104,300	108,000	111,800	115,700	119,700	123,900	128,200
Estimated Interest Earned, During Year		8,010	6,891	7,863	9,438	10,638	11,932	13,082	13,773	14,942	11,480	7,539	5,314	1,796	1,361	2,703
Anticipated Expenditures, By Year		(205,511)	(83,353)	0	(30,760)	(46,800)	(30,078)	(70,339)	(84,936)	(30,825)	(557,489)	(79,420)	(385,608)	(212,233)	(78,495)	(42,102)
Anticipated Reserves at Year End		<u>\$345,290</u>	<u>\$350,728</u>	<u>\$443,391</u>	<u>\$509,869</u>	<u>\$564,607</u>	<u>\$640,561</u>	<u>\$680,704</u>	<u>\$710,341</u>	<u>\$798,758</u>	<u>\$360,749</u>	<u>\$400,668</u>	<u>\$136,074</u>	<u>\$45,337</u>	<u>\$92,103</u>	<u>\$180,904</u>
														(NOTE 5)		(NOTE 4)

Explanatory Notes:

- 1) Year 2024 starting reserves are as of December 31, 2023; FY2024 starts January 1, 2024 and ends December 31, 2024.
- 2) Reserve Contributions for 2024 are budgeted; 2025 is the first year of recommended contributions.
- 3) 2.0% is the estimated annual rate of return on invested reserves.
- 4) Accumulated year 2054 ending reserves consider the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Years (reserve balance at critical point).

FIVE-YEAR OUTLOOK

**Heatherstone
Homeowners' Association, Inc.
Batavia, Ohio**

Line Item	Reserve Component Inventory	RUL = 0 FY2024	1 2025	2 2026	3 2027	4 2028	5 2029
<u>Property Site Elements</u>							
4.020	Asphalt Pavement, Crack Repair and Patch		4,601				
4.040	Asphalt Pavement, Mill and Overlay, Streets						135,753
4.140	Concrete Sidewalks, Partial		3,850				
4.500	Landscape, Partial Replacements			10,712			
4.800	Signage, Renovation				11,087		
4.840	Sport Court, Fence			36,764			
4.860	Sport Court, Basketball, Surface Replacement			34,708			
4.861	Sport Courts, Tennis, Surface Replacement			80,985			
<u>Clubhouse Elements</u>							
5.120	Balcony, Wood, Replacement					17,213	
5.500	Clubhouse, Renovation, Complete					69,999	
5.520	Kitchen, Renovation				22,174		
5.580	Rest Rooms, Renovation				25,501		
5.865	Windows and Doors			16,068			
<u>Pool Elements</u>							
6.200	Concrete Deck, Inspections, Partial Replacements and Repairs (2024 is Contracted)	35,600					
6.500	Furniture, Phased						6,532
6.600	Mechanical Equipment, Phased				3,881		
6.801	Pool Finish, Tile (2024 is Contracted)	8,890					
Anticipated Expenditures, By Year (\$2,783,882 over 30 years)		44,490	8,451	179,237	62,643	87,212	142,285

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.*

Property Site Elements

Asphalt Pavement, Repaving

Line Items: 4.020, 4.040 and 4.045

Quantity: Approximately 6,350 square yards at the streets and parking area.

History:

- Repaving: The age was unavailable at the time of our inspection.
- Repairs: The age was unavailable at the time of our inspection.

Condition: Fair overall with isolated cracks, standing water and edge deterioration evident.



Pavement overview



Pavement overview



Pavement cracks



Street pavement crack



Pavement cracks



Street edge deterioration



Pavement cracks



Standing water likely due to downspout discharge



Pavement overview



Pavement cracks



Slippage cracks



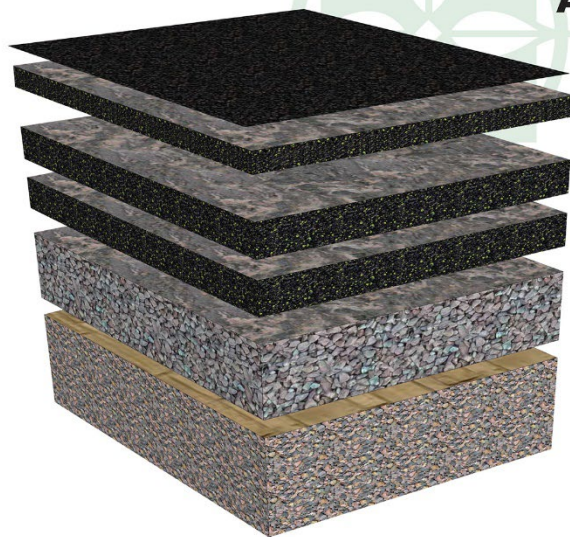
Pavement cracks

Useful Life: 15- to 20-years with the benefit of patch repairs events every three- to five-years

Component Detail Notes: Patch repairs are conducted at areas exhibiting settlement, potholes, or excessive cracking. These conditions typically occur near high traffic areas, catch basins, and pavement edges.

The initial installation of asphalt uses at least two lifts, or two separate applications of asphalt, over the base course. The first lift is the binder course. The second lift is the wearing course. The wearing course comprises a finer aggregate for a smoother more watertight finish.

The following diagram depicts the typical components although it may not reflect the actual configuration at Heatherstone:



ASPHALT DIAGRAM

Sealcoat or Wearing Surface

Asphalt Overlay Not to Exceed 1.5 inch Thickness per Lift or Layer

Original Pavement Inspected and milled until sound pavement is found, usually comprised of two layers

Compacted Crushed Stone or Aggregate Base

Subbase of Undisturbed Native Soils Compacted to 95% dry density

© Reserve Advisors

The manner of repaving is either a mill and overlay or total replacement. A mill and overlay is a method of repaving where cracked, worn and failed pavement is mechanically removed or milled until sound pavement is found. A new layer of asphalt is overlaid atop the remaining base course of pavement. Total replacement includes the removal of all existing asphalt down to the base course of aggregate and native soil followed by the application of two or more new lifts of asphalt. We recommend mill and overlayment on asphalt pavement that exhibits normal deterioration and wear. We recommend total replacement of asphalt pavement that exhibits severe deterioration, inadequate drainage, pavement that has been overlaid multiple times in the past or where the configuration makes overlayment not possible. Based on the apparent visual condition and configuration of the asphalt pavement, we recommend the mill and overlay method for initial repaving followed by the total replacement method for subsequent repaving at Heatherstone.

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

- Annually:
 - Inspect for settlement, large cracks and trip hazards, and ensure proper drainage
 - Repair areas which could cause vehicular damage such as potholes
- As needed:
 - Perform crack repairs and patching

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 an allowance for patching of up to two percent (2%) of the pavement. Our cost for milling and overlayment includes area patching of up to ten percent (10%).

Concrete Sidewalks

Line Item: 4.140

Quantity: Approximately 4,700 square feet of sidewalks, of which approximately 830 square feet at the clubhouse is stamped concrete. This quantity includes the rear patio at the clubhouse.

Condition: Fair overall



Concrete sidewalk



Concrete sidewalk



Sidewalk previous repair



Stamped sidewalk



Rear patio



Sidewalk cracks



Sidewalk damage

Useful Life: Up to 65 years although interim deterioration of areas is common

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

- Annually:
 - Inspect and repair major cracks, spalls and trip hazards
 - Mark with orange safety paint prior to replacement or repair
 - Repair or perform concrete leveling in areas in immediate need of repair or possible safety hazard

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We estimate that up to 1,860 square feet of concrete sidewalks, or approximately forty percent (39.6%) of the total, will require replacement during the next 30 years.

Landscape

Line Item: 4.500

Component Detail Notes: The Association contains a large quantity of trees, shrubbery and other landscape elements. Replacement of these elements is an ongoing need. Many associations budget for these replacements as normal maintenance. Other associations fund ongoing replacements from reserves. Large amounts of landscape may need replacement due to disease, drought or other forces of nature. If the cost of removal and replacement is substantial, funding from reserves is logical. The Association may also desire to periodically update the appearance of the community through major improvements to the landscape.



Large tree near road

Useful Life: At the request of Management and the Board, we include a landscape allowance for tree removal every five years.

Priority/Criticality: Per Board discretion

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

Mailbox Stations

Line Item: 4.600

Quantity: 10 stations containing 48 mailboxes

History: Repaired in 2019. The Board informs us the damaged mailbox station was struck by a delivery truck and will be repaired by the delivery company.

Condition: Fair overall with periodic rust and damage evident.



Mailbox stations



Damaged mailbox station



Mailbox station



Post damage



Mailbox rust

Useful Life: Up to 25 years

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

- As-needed:
 - Inspect and repair damage, vandalism, and finish deterioration
 - Verify posts are anchored properly

Priority/Criticality: Per Board discretion

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

Pipes, Subsurface Utilities

Line Item: 4.650

Condition: Reported satisfactory

Useful Life: Up to and likely beyond 85 years

Component Detail Notes: The Association maintains the subsurface utility pipes throughout the property. The exact amounts and locations of the subsurface utility pipes were not ascertained due to the nature of the underground construction and the non-invasive nature of the inspection.

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

- As-needed:
 - Video inspect waste pipes for breaks and damaged piping
 - Monitor for water and gas leaks through pressure losses and present odors
 - Partially replace damaged section of pipes

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. At this time we do not anticipate replacement of continuous lengths of subsurface utility pipes. Rather we recommend the Association budget for repairs to isolated occurrences of breached utilities. Although it is likely that the times of replacement and extent of repair costs may vary from the budgetary allowance, Heatherstone could budget sufficient reserves for these utility repairs and have the opportunity to adjust its future reserves up or down to meet any changes to these budgetary estimates. Updates of this Reserve Study would incorporate changes to budgetary costs through a continued historical analysis of the rate of deterioration and actual repairs to budget sufficient reserves.

Playground Equipment

Line Item: 4.660

Quantity: Playground equipment includes the following elements:

- Playset
- Rubber surface with a timber border

History: Replaced in 2019.

Condition: Fair overall with finish deterioration evident.



Playground equipment



Finish deterioration

Useful Life: 15- to 20-years

Component Detail Notes: Safety is the major purpose for maintaining playground equipment. We recommend an annual inspection of the playground equipment to identify and repair as normal maintenance loose connections and fasteners or damaged elements. We suggest the Association learn more about the specific requirements of playground equipment at PlaygroundSafety.org. We recommend the use of a specialist for the design or replacement of the playground equipment environment.

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

- Annually:
 - Inspect and repair loose connections and fasteners or damaged elements
 - Inspect for safety hazards and adequate coverage of ground surface cover

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 include an allowance in the unit cost for replacement of the safety surface and border.

Pond, Aerator

Line Item: 4.700

Quantity: One aerator

History: Replaced in 2023.

Condition: Reported satisfactory without operational deficiencies. We were unable to inspect the aerator due to storage for the winter.

Useful Life: 10- to 15-years

Component Detail Notes: The use of small pumps, motors and aerators circulates pond water and increases the amount of entrained oxygen in the water, increasing water quality and reducing algae growths.

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 is based on information provided by the Association.

Pond, Sediment Removal and Erosion Control

Line Items: 4.710 and 4.730

Quantity: Approximately 4,560 square yards of water surface area and approximately 920 linear feet of stone rip rap shorelines

History: The Association replaced the rip rap approximately eight years ago, with a repair conducted in 2023 due to erosion near the buildings on the west side of the pond. Additionally, the southeast section of the natural dam was regraded and geotextile was installed to correct the overflow area in 2023.

Condition: Fair overall with steep embankments evident.



Pond overview



Pond shoreline



Pond shoreline



Geotextile installation (2023)



Installation of a gabion wall to forestall erosion near building

Useful Life: Based on the visual condition, construction, adjacent deciduous trees and visibly apparent erosion, we recommend the Association anticipate the need to remove pond sediment up to every 30 years.

Shorelines are subject to fluctuations in water levels, increased plant growth and migrating storm and ground water resulting in the need for erosion control measures up to every 15 years.

Component Detail Notes: The gradual build-up of natural debris, including tree leaves, branches and silt, may eventually change the topography of areas of the pond. Silt typically accumulates at inlets, outlets and areas of shoreline erosion. Sediment removal of ponds becomes necessary if this accumulation alters the quality of pond water or the functionality of the ponds as storm water management structures. Sediment removal is the optimal but also the most capital intensive method of pond management. Excavation equipment used for sediment removal includes clamshells, draglines and suction pipe lines. Sediment removal can also include shoreline regrading. Regrading includes removal of collapsed and eroded soil, and redefining the shoreline.

The steep shoreline embankments are likely to exacerbate soil movement and erosion. The use and maintenance of landscape, natural vegetation and/or stone rip rap along the pond shoreline will help maintain an attractive appearance and prevent soil erosion.

Shoreline plantings are referred to as buffer zones. Buffer zones provide the following advantages:

- Control insects naturally
- Create an aesthetically pleasing shoreline
- Enhance water infiltration and storage
- Filter nutrients and pollutants
- Increase fish and wildlife habitat
- Reduce lawn maintenance
- Stabilize shoreline and reduce erosion
- Trap sediments

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

- Annually:
 - Inspect and remediate shoreline erosion and areas of sediment accumulation
 - Clear and remove debris and vegetation overgrowth at pond edges, and inlet and outlet structures
 - Inspect for algae blooms and remedy as needed through a chemical treatment program or aeration

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 recommend the Association plan to install a combination of plantings and rip rap around the pond along 140 linear feet, or approximately fifteen percent (15%), of the shoreline per event.

For reserve budgeting purposes, we estimate the need to remove an average depth of one yard from approximately twenty-five percent (25%) of the surface area. However, the actual volume of material to remove may vary dependent upon an invasive analysis at the time of removal. A visual inspection of a body of water cannot reveal the amount of accumulated silt. This is especially true on larger bodies of water. It is therefore inaccurate to assume an entire body of water will require sediment removal. It is more cost effective to spot remove in areas of intense silt accumulation as noted through bathymetric surveys. The amount or depth of silt is determined through prodding into the silt until a relatively solid base is found or through bathymetric surveys. A bathymetric survey establishes a base of data about the depth of the body of water over many locations against which the data of future surveys is compared. These invasive procedures are beyond the scope of a Reserve Study and require multiple visits to the site. We recommend Heatherstone contract with a local engineer for periodic bathymetric surveys. Future updates of the Reserve Study can incorporate future anticipated expenditures based on the results of the bathymetric surveys.

Unit costs per cubic yard to remove can vary significantly based on the type of equipment used, quantity of removed material and disposal of removed material. Sediment removal costs must also include mobilization, or getting the equipment to and from the site. Also, the portion of the overall cost to remove associated with mobilization varies based on the volume removed. Costs for sediment disposal also vary depending on the site. Compact sites will require hauling and in some cases disposal fees.

Signage, Entrance Monument

Line Item: 4.800

Quantity: The property identification signage includes the following elements:

- Landscaping
- Lighting
- Masonry
- Wood signage

History: The age was unavailable at the time of our inspection.

Condition: Fair overall with isolated masonry damage and sign deterioration evident.



Entrance monument



Sign deterioration



Sign lighting



Masonry spall

Useful Life: 15- to 20-years

Component Detail Notes: Community signage contributes to the overall aesthetic appearance of the property to owners and potential buyers. Renovation or replacement of community signs is often predicated upon the desire to "update" the perceived identity of the community rather than for utilitarian concerns. Therefore, the specific times for replacement or renovation are discretionary.

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

- Annually:
 - Inspect and repair damage, vandalism and loose components
 - Verify lighting is working properly
 - Touch-up paint finish applications if applicable

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost for renovation includes repairs to the masonry and replacement of the remaining components listed above.

Sport Court, Basketball, Fence

Line Item: 4.840

Quantity: 660 linear feet

History: The age was unavailable at the time of our inspection.

Condition: Fair overall with isolated finish deterioration at the posts.



Chain link fence



Fence finish deterioration

Useful Life: Up to 25 years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Due to the interconnected nature of the fence we coordinate replacement with the playing surfaces.

Sport Courts, Basketball and Tennis

Line Items: 4.830, 4.831, 4.860 and 4.861

Quantity: 600 square yards of asphalt comprising one basketball court and 1,400 square yards of asphalt comprising two tennis courts. Management and the Board inform us they are in discussions of removing the courts. At the time of our inspection there was debate on removing just the tennis courts or all sport courts. For the purpose of this study, we conservatively include costs for replacement of all sport courts. Future updates of this Reserve Study will consider possible changes in the scope and time of component replacements.

History:

- Color Coat: The age was unavailable at the time of our inspection.
- Surface: The age was unavailable at the time of our inspection.

Condition: Poor overall systemic cracks, trip hazards, basketball goal damage and color coat fade evident.



Surface cracks



Tennis court overview



Basketball goal lean



Surface cracks



Surface cracks



Color coat fade



Surface cracks



Color coat fade



Basketball goal damage

Useful Life: Up to 25 years for replacement of the surface with the benefit of color coat applications and repairs every four- to six-years

Preventative Maintenance Notes: Prior to the application of the color coat, the Association should require the contractor to rout and fill all cracks with hot emulsion. This deters water infiltration and further deterioration of the asphalt playing surface. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
 - Inspect and repair large cracks, trip hazards and possibly safety hazards
 - Verify gate and fencing is secure
 - Verify lighting is working properly if applicable
 - Inspect and repair standards and windscreens 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.

Clubhouse Elements



Clubhouse overview



Clubhouse rear overview

Balcony, Wood

Line Item: 5.120

Quantity: One wood balcony at the rear of the clubhouse

History: The age was unavailable at the time of our inspection.

Condition: Fair overall with isolated fastener rust and weathered wood evident.



Balcony overview



Deck board damage



Railing wood split



Wood post in contact with ground

Useful Life: Up to 35 years with interim deck board replacement and structural repairs every 12-to 18-years. Failure to replace the deck boards and conduct structural repairs will result in the need for premature replacement for safety reasons. We recommend the Association fund interim deck board replacements through the operating budget. The rates and types of deterioration are not uniform due to the nature of wood. Replacement is normally an ongoing process which eventually leads to a complete replacement for economic or aesthetic reasons.

Component Detail Notes: Balcony construction includes the following:

- Deck boards fastened with nails. Nail fasteners have a tendency to pull out as the wood warps.
- Wood railings with vertical pickets
- Wood column supported frames
- Columns in contact with ground (This condition results in accelerated deterioration at the column bases.)
- Metal joist hanger fasteners
- Cross bracing does not exist to stabilize the frames

- Toe-nailed connections (Nails driven at an angle into the weakest part of the wood result in an increased potential for failed connections.)

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

- Annually:
 - Inspect to identify and correct any unsafe conditions
 - Secure loose fasteners and replace deteriorated fasteners
 - Replace deteriorated wood components
 - Check railing stability and fasteners
- Every three years:
 - Power wash with algaecide and application of sealer/stain if applicable

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.

Clubhouse Renovations

Line Items: 5.500 and 5.510

Quantity: The clubhouse interior components include:

- Furnishings
- Gaming tables
- Light fixtures
- Paint finishes at the ceilings
- Paint finishes at the walls
- Wood and carpet floor coverings

History: The age was unavailable at the time of our inspection.

Condition: Fair to poor overall with carpet damage and stains, ceiling cracks, dated furnishings, damage and wall cracks evident.



Clubhouse furnishings



Party room overview



Ceiling crack



Carpet damage



Clubhouse upstairs interior



Wall crack



Wall crack



Wall cracks



Wall scuffs and repairs



Worn carpet



Worn finishes



Damage



Carpet stains



Wall damage



Wall damage



Wall repair

Useful Life: Complete renovation up to every 25 years and partial renovation up to every 12 years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Based on conversations with Management and the Board we defer the timing of this project. Future updates of this Reserve Study will consider the Board's desire to accelerate the timing of this discretionary project. Should additional funds become available, we recommend the Association consider acceleration of this project.

The complete renovation should include replacement of all components listed above and the partial renovations should include the following:

- Application of paint finishes and carpet replacement
- Replacement of up to fifty percent (50%) of the furnishings

HVAC, Split System

Line Item: 5.515

Quantity: One *Ducane* split system

History: Replaced in 2023.

Condition: Reported satisfactory without operational deficiencies



Split system condensing unit

Useful Life: 15- to 20-years

Component Detail Notes: A split system air conditioner consists of an outside condensing unit, an interior evaporator coil, refrigerant lines and an interior air handling unit. The condensing unit has a cooling capacity of five-tons.

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.

Kitchen

Line Item: 5.520

Quantity: Components of the kitchen include:

- Vinyl floor coverings
- Vinyl wall coverings
- Acoustical ceiling tiles and grid
- Appliances
- Cabinets and countertops
- Light fixtures

History: The age was unavailable at the time of our inspection.

Condition: Fair overall with dated finishes and appliances.



Kitchen overview



Ceiling detail



Missing sealant



Floor detail



Dated appliances



Wall covering damage

Useful Life: Renovation up to every 25 years

Priority/Criticality: Per Board discretion

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

Rest Rooms

Line Item: 5.580

Quantity: The rest room components include:

- Tile floor coverings
- Paper wall coverings and tile wall coverings
- Paint finishes at the ceilings
- Light fixtures
- Plumbing fixtures

History: The age was unavailable at the time of our inspection.

Condition: Fair to poor overall with damage, adhesion failure and partition rust evident.



Rest room overview



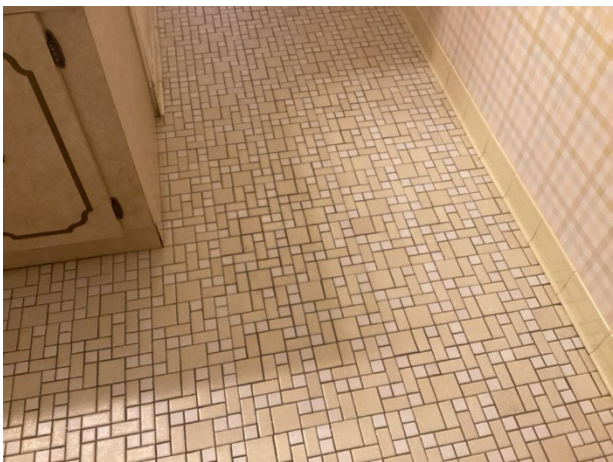
Mirror damage



Partition rust



Adhesion failure



Tile floor



Wall covering seam adhesion failure

Useful Life: Renovation up to every 20 years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our lower than normal useful life is determined based on the higher than normal use of the restrooms due to the pool.

Roof Assembly, Asphalt Shingles

Line Item: 5.600

Quantity: Approximately 50 squares¹ and approximately 260 linear feet of gutters and downspouts.

History: The age was unavailable at the time of our inspection.

Condition: Fair overall with isolated deflection and shingle curl evident from our visual inspection from the ground. Management and the Board do not report a history of leaks.



Gutter deflection



Shingle curl



Drip edge detail



Roof overview

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



Shingle lift



Sheathing deflection

Useful Life: 15- to 20-years

Component Detail Notes: Contractors use one of two methods for replacement of sloped roofs, either an overlayment or a tear-off. Overlayment is the application of new shingles over an existing roof. However, there are many disadvantages to overlayment including hidden defects of the underlying roof system, absorption of more heat resulting in accelerated deterioration of the new and old shingles, and an uneven visual appearance. Therefore, we recommend only the tear-off method of replacement. The tear-off method of replacement includes removal of the existing shingles, flashings if required and underlayments.

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 shingles
 - Implement repairs as needed if issues are reoccurring
 - Trim tree branches that are near or in contact with roof
- As-needed:
 - Ensure proper ventilation and verify vents are clear of debris and not blocked from attic insulation

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.

Walls, Siding, Vinyl

Line Item: 5.860

Quantity: Approximately 6,300 square feet of clapboard, double 4" vinyl siding comprises the exterior walls

History: The age was unavailable at the time of our inspection. Based on the style of the siding, we opine the siding was installed within the last 20 years.

Condition: Fair overall with isolated warps, loose sections and damage evident.



Siding deflection



Loose siding



Gap in siding



Siding deflection



Siding gap



Siding damage

Useful Life: Up to 40 years

Component Detail Notes: The siding at Heatherstone consists of the following:

- Clapboard, double 4"
- J-channel trim at window and door perimeters, and other penetrations
- Water-vapor permeable building paper protects the buildings

The following diagram details the use of building wrap in a vinyl siding system:

VINYL SIDING DETAIL



© Reserve Advisors

The Association should install new vinyl siding as recommended by the *Vinyl Institute, Inc.* The vinyl siding should be installed over a continuous weather resistant barrier and

properly integrated flashing around all penetrations. Fasteners used should include aluminum, galvanized steel or other corrosion-resistant fasteners. Siding panels should overlap by approximately one inch. Joints should be staggered so that no two courses are aligned vertically, unless separated by at least three courses. The siding should not be caulked where the siding meets trim accessories, such as J-channel, or at overlap joints. J-channel should be installed a minimum of ½ inch off of roof lines.

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

- Annually:
 - Inspect and repair loose siding, warping or damage from wind driven objects or lawn care equipment
 - Periodically clean siding as necessary at areas of organic growth. A non-abrasive household cleaner or manufacturer specified vinyl siding cleaner will remove more intense stains. We do not recommend pressure cleaning at vinyl siding due to the siding's brittle nature.

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.

Windows and Doors

Line Item: 5.865

Quantity: Approximately 200 square feet

History: The age was unavailable at the time of our inspection.

Condition: Fair to poor overall with failed gaskets evident. The Association reports a history of sealant failures.



Balcony door



Evidence of broken seal



Evidence of broken seal



Evidence of broken seal

Useful Life: Up to 40 years

Component Detail Notes: Construction of the windows and doors at the clubhouse includes the following:

- Vinyl frames
- Dual pane glass
- Sliding and hinged doors

Priority/Criticality: Not recommended to defer

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

Pool Elements



Pool overview

Concrete Deck

Line Item: 6.200

Quantity: 1,650 square feet

History: The Association was in the process of replacing the pool deck during our inspection.



Deck in process of replacement



Deck in process of replacement

Useful Life: The useful life of a concrete pool deck is up to 60 years or more with timely repairs. We recommend the Association conduct inspections, partial replacements and repairs to the deck every 8- to 12-years.

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

- Semi-annually:
 - Inspect and repair large cracks, trip hazards, and possible safety hazards
 - Inspect and repair pool coping for cracks, settlement, heaves or sealant deterioration
 - Repair concrete spalling
 - Schedule periodic pressure cleanings 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 costs for 2024 is based on information provided by the Association and includes the repairs to the pool plaster. Due to upcoming replacement of the pool deck we defer the initial repair event. We recommend the Association budget for the following per event:

- Selective cut out and replacements of up to ten percent (10%) of concrete

- Crack repairs as needed
- Mortar joint repairs
- Caulk replacement

Fence, Aluminum

Line Item: 6.400

Quantity: 140 linear feet

History: The age was unavailable at the time of our inspection. Management and the Board inform us the contractor for the pool deck will reinstall the fence and make repairs once the pool deck is completed in the spring.

Condition: Fair overall with isolated bent pickets and fence lean evident.



Aluminum pool fence



Bent picket



Fence leaning section

Useful Life: Up to 25 years

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

- Annually:
 - Inspect and repair loose fasteners or sections, and damage
 - Repair leaning sections and clear vegetation from fence areas which could cause damage

Priority/Criticality: Not recommended to defer

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

Furniture

Line Item: 6.500

Quantity: The pool furniture includes the following:

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

History: The Association replaced half of the furniture in 2023.

Condition: Reported satisfactory. We were unable to inspect the pool furniture due to storage for the winter.

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.

Mechanical Equipment

Line Item: 6.600

Quantity: The mechanical equipment includes the following:

- Automatic chlorinator and controls
- Interconnected pipe, fittings and valves
- Pump and filter

History: Not available at the time of our inspection

Condition: Reported satisfactory with operational deficiencies



Pool mechanical equipment



Pool filter

Useful Life: Up to 15 years

Preventative Maintenance Notes: The status of preventative maintenance was unavailable to us during our inspection. We recommend the Association maintain a maintenance contract with a qualified professional and follow the manufacturer's specific recommended maintenance and local, state and/or federal inspection guidelines.

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. Failure of the pool mechanical equipment as a single event is unlikely. Therefore, we include replacement of up to fifty percent (50%) of the equipment per event. We consider interim replacement of motors and minor repairs as normal maintenance.

Pool Finishes, Plaster and Tile

Line Items: 6.800 and 6.801

Quantity: 750 square feet of plaster based on the horizontal surface area and approximately 130 linear feet of tile

History:

- Plaster finish: Contracted for 2024
- Tile: Contracted for 2024

Condition: Fair overall at the time of inspection.



Pool plaster finish with tile perimeter



Pool plaster finish with tile perimeter

Useful Life: 8- to 12-years for the plaster and 15- to 25-years for the tile

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

- Semi-annually:
 - Inspect and patch areas of significant plaster delamination, coping damage and structure cracks
 - Inspect main drain connection and anti-entrapment covers, pressure test circulation piping and valves
 - Test handrails and safety features for proper operation

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 costs for 2024 are included in the **Line Item "Concrete Deck, Inspections, Partial Replacements and Repairs"**. We recommend the Association budget for full tile replacement every other plaster replacement event. Removal and replacement of the finish provides the opportunity to inspect the pool structure and to allow for partial repairs of the underlying concrete surfaces as needed. To maintain the integrity of the pool structure, we recommend the Association budget for the following:

- Removal and replacement of the plaster finish
- Partial replacements of the scuppers and coping as needed
- Replacement of tiles as needed
- Replacement of joint sealants as needed
- Concrete structure repairs as needed

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.

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.

Heatherstone 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 Batavia, Ohio 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 Heatherstone 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.

MATTHEW C. FERGUSON, RS
Engineer

CURRENT CLIENT SERVICES

Matthew C. Ferguson is an Engineer and Advisor for Reserve Advisors. Mr. Ferguson is responsible for the inspection and analysis of the condition of clients' property and recommending engineering solutions to prolong the lives of the components. He also forecasts capital expenditures for the repair and/or replacement of the property components, and prepares technical reports on assignments. He is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast services and the preparation of Reserve Study Reports for apartments, condominiums, townhomes and homeowner associations.



The following is a partial list of clients served by Matthew Ferguson demonstrating his breadth of experiential knowledge of community associations in construction and related buildings systems.

One Neighborhood Condominium Association – Built between 2007 and 2010 this association comprises 74 units in eight unique buildings located in the heart of downtown Columbus Ohio. The developer mixed modern units with curtain walls and metal siding in with traditional brownstones, row homes and garden units. The buildings include asphalt shingle, EPDM and slate roofs atop units with stucco siding, painted brick, and steel, wood and concrete balconies and exterior staircases.

Liberty Grove Homeowners Association - Located in Plainfield, Illinois, this planned unit development was built from 2002 to 2014. This property includes walking paths, two ponds, a zero entry pool and water slide nestled between 682 single-family homes. A bridge connecting the two ponds creates an ideal vantage point to take in the surroundings.

Nantucket Landing South Condominium Association - Built in 1988 and located in Dayton, Ohio, this association comprises 67 units with wood shake siding and asphalt shingle roofs surrounding two ponds with an interconnected culvert and an outdoor swimming pool. The nautical theme throughout creates a classic community appeal.

Willow Creek Condominium Owners' Association Inc. – This association located in Dayton, Ohio is responsible for the common elements shared by 132 single family homes. With a tennis court, and outdoor pool located onsite, residents have all they could desire within walking distance of their home.

Paragon Mill Condominium Owners' Association Inc. - Consisting of 263 units in 26 buildings, this association was built from 2008 to 2020. This community, located in Burlington, Kentucky, is situated amongst rolling hills with an impressive clubhouse featuring a fitness center, pool and water wheel feature.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Mr. Ferguson worked as a Maintenance Director overseeing the maintenance and support for a Five Seasons Family Sports Club. His responsibilities included managing the IT department and diagnosing facility and equipment problems related to the 25,000-square foot fitness, tennis and pool facility.

EDUCATION

Wright State University - B.S. Industrial and Systems Engineering

PROFESSIONAL AFFILIATIONS/DESIGNATIONS

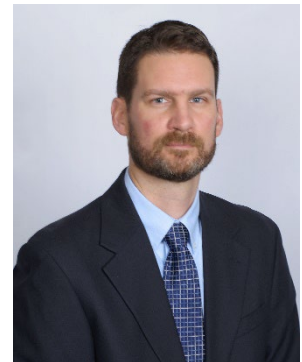
Reserve Specialist (RS) – Community Associations Institute

ALAN M. EBERT, P.E., PRA, RS
Director of Quality Assurance

CURRENT CLIENT SERVICES

Alan M. Ebert, a Professional Engineer, is the Director of Quality Assurance for Reserve Advisors. Mr. Ebert is responsible for the management, review and quality assurance of reserve studies. In this role, he assumes the responsibility of stringent report review analysis to assure report accuracy and the best solution for Reserve Advisors' clients.

Mr. Ebert has been involved with thousands of Reserve Study assignments. The following is a partial list of clients served by Alan Ebert demonstrating his breadth of experiential knowledge of community associations in construction and related buildings systems.



Brownsville Winter Haven Located in Brownsville, Texas, this unique homeowners association contains 525 units. The Association maintains three pools and pool houses, a community and management office, landscape and maintenance equipment, and nine irrigation canals with associated infrastructure.

Rosemont Condominiums This unique condominium is located in Alexandria, Virginia and dates to the 1940's. The two mid-rise buildings utilize decorative stone and brick masonry. The development features common interior spaces, multi-level wood balconies and common asphalt parking areas.

Stillwater Homeowners Association Located in Naperville, Illinois, Stillwater Homeowners Association maintains four tennis courts, an Olympic sized pool and an upscale ballroom with commercial-grade kitchen. The community also maintains three storm water retention ponds and a detention basin.

Birchfield Community Services Association This extensive Association comprises seven separate parcels which include 505 townhome and single family homes. This Community Services Association is located in Mt. Laurel, New Jersey. Three lakes, a pool, a clubhouse and management office, wood carports, aluminum siding, and asphalt shingle roofs are a few of the elements maintained by the Association.

Oakridge Manor Condominium Association Located in Londonderry, New Hampshire, this Association includes 104 units at 13 buildings. In addition to extensive roads and parking areas, the Association maintains a large septic system and significant concrete retaining walls.

Memorial Lofts Homeowners Association This upscale high rise is located in Houston, Texas. The 20 luxury units include large balconies and decorative interior hallways. The 10-story building utilizes a painted stucco facade and TPO roof, while an on-grade garage serves residents and guests.

PRIOR RELEVANT EXPERIENCE

Mr. Ebert earned his Bachelor of Science degree in Geological Engineering from the University of Wisconsin-Madison. His relevant course work includes foundations, retaining walls, and slope stability. Before joining Reserve Advisors, Mr. Ebert was an oilfield engineer and tested and evaluated hundreds of oil and gas wells throughout North America.

EDUCATION

University of Wisconsin-Madison - B.S. Geological Engineering

PROFESSIONAL AFFILIATIONS/DESIGNATIONS

Professional Engineering License – Wisconsin, North Carolina, Illinois, Colorado

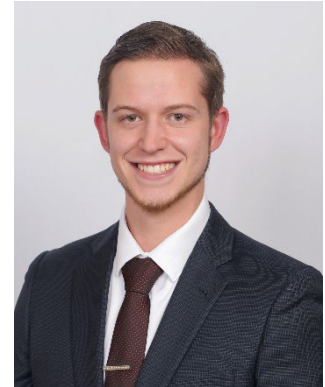
Reserve Specialist (RS) - Community Associations Institute

Professional Reserve Analyst (PRA) - Association of Professional Reserve Analysts

JUSTIN B. KLEIN, RS
Great Lakes Quality Assurance Engineer

CURRENT CLIENT SERVICES

Justin B. Klein, a Senior Engineer, is an Advisor for Reserve Advisors, LLC. Mr. Klein is responsible for the inspection and analysis of the condition of clients' property, and recommending engineering solutions to prolong the lives of the components. He also forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. He is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast services and the preparation of Reserve Study and Transition Study Reports for apartments, high rises, condominiums, townhomes, and homeowners associations.



The following is a partial list of clients served by Justin Klein demonstrating his breadth of experiential knowledge of community associations in construction and related buildings systems.

Springfield Golf and Country Club – This private club, established in 1960, is located in Springfield, Virginia. Home to an 18-hole golf course, multiple practice putting greens, a driving range, outdoor pool facility, a fitness center and studio, a golf simulator, four indoor tennis courts, and six outdoor tennis courts including two clay courts, members of this Club can enjoy an extensive array of amenities.

Glenmore Community Association – Located in Keswick, Virginia, this master community association features 980 single family homes and counting. The community maintains a private equestrian center located on a 61-acre parcel of land. The equestrian center is equipped with two outdoor riding rings and 13 fenced paddocks in addition to the 27 stalls at the Main Barn. The Association also maintains over 10 miles of roads, three earthen dams, eight ponds, a dog park, and playground.

California House – Built in 1900 and converted to condominiums in 1978, this six story building is located in the historic Kalorama neighborhood in Washington D.C. Sharing its footprint with a sister building, the Association's 27 residents can enjoy the decorative cornice, ornate marble tiled lobby and welcoming courtyard.

Villages of Five Points – Conveniently nestled east of Route 1 in Lewes, Delaware, this master association of over 580 units comprising condos, townhouses and single-family homes is a short drive to the shores of the Atlantic Ocean. The Association maintains a clubhouse, two pool houses and pools, eight tennis courts and over 1.5 miles of pavement walking paths.

Windsor Park Residences – Located within the Windsor Club in Vero Beach, Florida, this condominium Association features 12 residences within five connected three-story buildings with a private reflecting pool centerpiece at the courtyard. Owners can take advantage of direct access elevators and garages for their vehicles and golf carts.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, LLC, Mr. Klein attended Rose-Hulman Institute of Technology in Terre Haute, Indiana where he attained his Bachelor of Science degree in Mechanical Engineering. His rigorous coursework focused on using problem solving to understand mechanical systems and principles. During his undergraduate education, Mr. Klein worked to develop a debris displacement apparatus to be mounted inside a D-155 bulldozer for Komatsu America Corporation.

EDUCATION

Rose-Hulman Institute of Technology - B.S. Mechanical Engineering

PROFESSIONAL AFFILIATIONS

Reserve Specialist (RS) – Community Association Institute
Engineer in Training (E.I.T) – State of Virginia



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 Heatherstone 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) Heatherstone 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.

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.