Horseshoe Bend Homes Association

September 14, 2023 • Sharpsburg, MD

FULL RESERVE STUDY



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Corporate Office
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735 N. Water Street, Suite 175
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Horseshoe Bend Homes Association
Sharpsburg, Maryland

Dear Board of Directors of Horseshoe Bend Homes Association:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Full Reserve Study* of Horseshoe Bend Homes Association in Sharpsburg, Maryland and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, September 14, 2023.

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 Horseshoe Bend Homes Association plan for a successful future.

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

Respectfully submitted on October 6, 2023 by

Reserve Advisors, LLC

Visual Inspection and Report by: Lisa Pham, RS[1]
Review by: Nicholas R. Julia, RS, Regional Engineering Manager
Alan M. Ebert, RS, PRA[2], 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: Horseshoe Bend Homes Association (Horseshoe Bend)
Location: Sharpsburg, Maryland
Reference: 232615

Property Basics: Horseshoe Bend Homes Association is a homeowners association which is responsible for the common elements shared by 92 lots. The community dates to 1960.

Reserve Components Identified: Eight Reserve Components.

Inspection Date: September 14, 2023.

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 2033 due to the repaving of the main roads and in 2053 due to the subsequent repaving of the main roads.

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
- 3.0% 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.

State Compliance: This report complies with *Maryland House Bill 107*. Per the Bill, the Association must attain the recommended annual reserve funding levels from the reserve study within three fiscal years following the fiscal year in which the initial reserve study was completed.

Unaudited Cash Status of Reserve Fund:

- $125,483 projected as of December 31, 2023
- 2023 budgeted Reserve Contributions of $20,000
- A potential deficit in reserves might occur by 2027 based upon continuation of the most recent annual reserve contribution of $20,000 and the identified Reserve Expenditures.

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

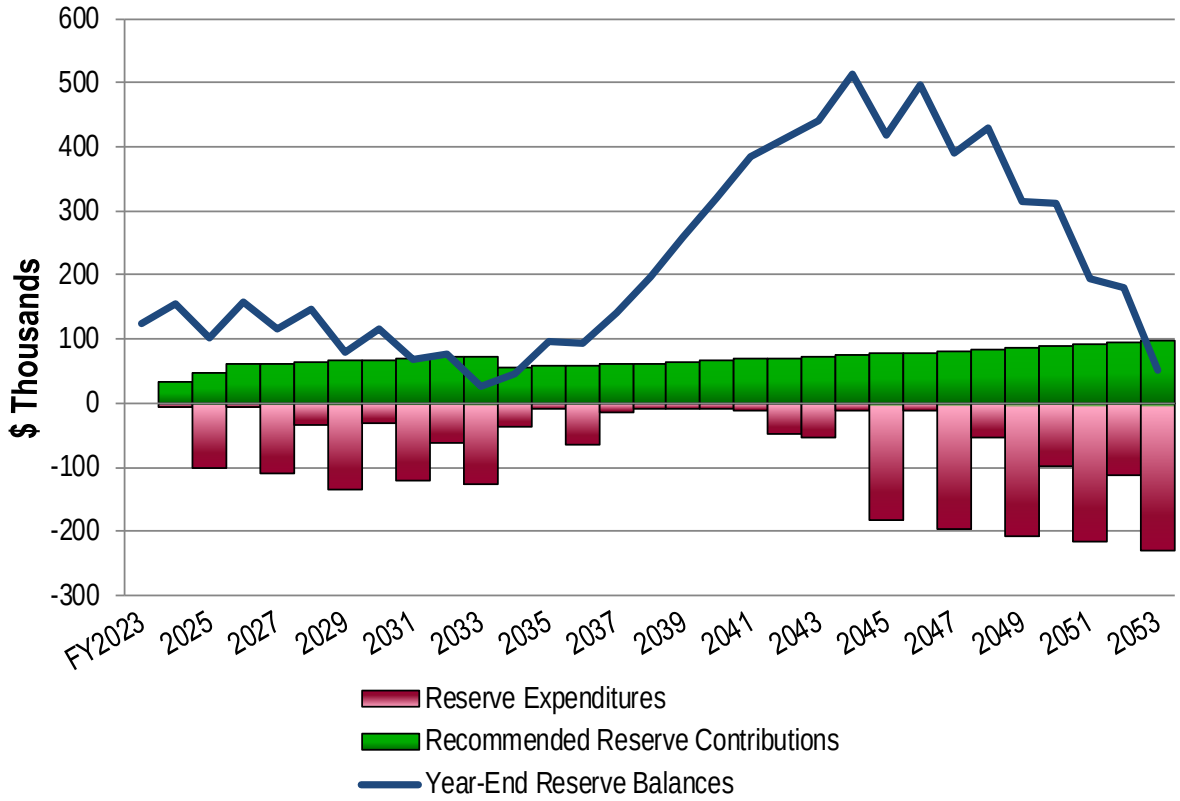
- Phased increases of $13,300 from 2024 through 2026
- Inflationary increases from 2027 through 2033
- Decrease to $55,600 by 2034 due to fully funding for repaving of the main roads
- Inflationary increases thereafter through 2053, the limit of this study's Cash Flow Analysis
- Initial adjustment in Reserve Contributions of $13,300 represents an average annual increase of $144.57 per homeowner and about a thirty-nine percent (39.0%) adjustment in the 2023 total Operating Budget of $34,120.
- 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."

Horseshoe Bend

Recommended Reserve Funding Table and Graph

Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)
2024	33,300	155,374	2034	55,600	46,219	2044	74,800	514,114
2025	46,600	103,037	2035	57,300	96,362	2045	77,000	419,148
2026	59,900	158,964	2036	59,000	92,142	2046	79,300	495,644
2027	61,700	114,599	2037	60,800	141,360	2047	81,700	389,650
2028	63,600	146,434	2038	62,600	197,957	2048	84,200	428,284
2029	65,500	78,927	2039	64,500	257,321	2049	86,700	316,032
2030	67,500	116,843	2040	66,400	319,498	2050	89,300	313,113
2031	69,500	66,972	2041	68,400	384,638	2051	92,000	193,763
2032	71,600	77,761	2042	70,500	413,795	2052	94,800	179,842
2033	73,700	25,388	2043	72,600	441,037	2053	97,600	50,173



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

Horseshoe Bend Homes Association

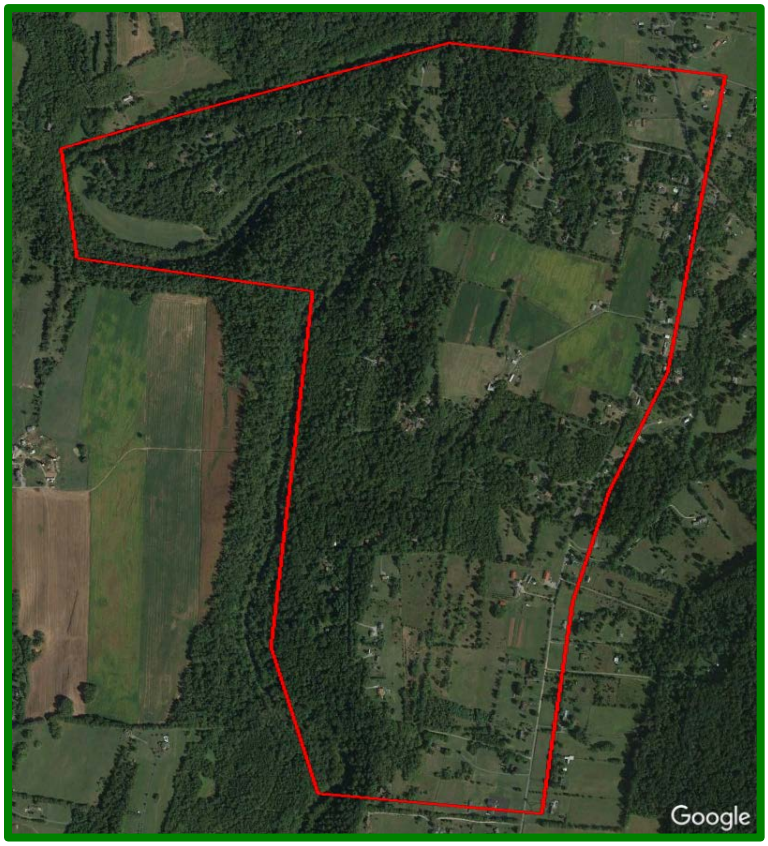
Sharpsburg, Maryland

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, September 14, 2023.

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
- **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 Homeowners 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 the Board. These classes of property include:

- Reserve Components
- Long-Lived Property Elements
- Operating Budget Funded Repairs and Replacements
- Property Maintained by Homeowners
- 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:

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

Long-Lived Property Elements – These elements may not have predictable Remaining Useful Lives or their replacement may occur beyond the 30-year scope of the 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. We identify the following Long-Lived Property Elements as excluded from the 30-year Reserve Expenditures at this time.

- Inlet/Outlet Structures, Concrete, Storm Water Management System

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. For purposes of calculating appropriate Reserve Contributions, we identify the following list of Operating Budget Funded Repairs and Replacements:

- General Maintenance to the Common Elements
- Expenditures less than $2,000 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Culverts, Maintenance and Repairs
- Detention Basin, Maintenance
- Irrigation System, Controls and Maintenance
- Landscape
- Paint Finishes, Touch Up
- Signage, Street Identification and Traffic Management
- Other Repairs normally funded through the Operating Budget

Homeowners' Responsibility - Items designated as the responsibility of the homeowners to repair or replace at their cost. Property Maintained by Homeowners, including items billed back to Homeowners, relates to unit:

- Homes and Lots
- Well, Domestic Water Supply (Shared by Lots 8, 17 and 19)



Domestic water supply well

Others' Responsibility - Items designated as the responsibility of others to repair or replace. Property Maintained by Others relates to:

- Mailbox Stations (United States Postal Service)
- Pipes, Subsurface Utilities (Washington County)

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
- 2023 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

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***.

Years 2023 to 2038

RESERVE EXPENDITURES

Horseshoe Bend
Homes Association
Sharpsburg, Maryland

Explanatory Notes:

1) **3.0%** **is the estimated Inflation Rate for estimating Future Replacement Costs.**
2) **FY2023 is Fiscal Year beginning January 1, 2023 and ending December 31, 2023.**

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Remaining	Unit Cost (2023)	Per Phase Cost (2023)	Total Cost (2023)	Percentage of Future Expenditures	RUL = 0 FY2023	1 2024	2 2025	3 2026	4 2027	5 2028	6 2029	7 2030	8 2031	9 2032	10 2033	11 2034	12 2035	13 2036	14 2037	15 2038
4.015	1,780	**1,780**	Square Yards	Access Drive, South End, Gravel, Partial Replenishment and Regrading	2029	6 to 8	6	10.50	18,690	18,690	**5.4%**							22,317							27,447		
4.019	830	**830**	Square Yards	Asphalt Pavement, Access Drive, North End, Crack Repair, Patch and Chip Seal	2027	5 to 7	4	2.50	2,075	2,075	**0.9%**					2,335					2,707					3,139	
4.020	30,050	**6,010**	Square Yards	Asphalt Pavement, Main Roads and Spurs, Crack Repair and Patch, Phased	2024	3 to 5	1 to 5	1.00	6,010	30,050	**12.7%**		6,190	6,376	6,567	6,764	6,967	7,176	7,392	7,613	7,842	8,077	8,319	8,569	8,826	9,091	9,363
4.040	24,600	**4,920**	Square Yards	Asphalt Pavement, Main Roads, Mill and Overlay, Phased	2025	to 25	2 to 10	18.00	88,560	442,800	**64.2%**			93,953		99,675		105,745		112,185		119,017					
4.041	5,450	**1,090**	Square Yards	Asphalt Pavement, Spurs, Mill and Overlay, Phased	2028	to 25	5 to 13	18.00	19,620	98,100	**11.2%**						22,745		24,130		25,600		27,159		28,813		
4.090	1	**1**	Allowance	Bridge, Concrete with Steel Frame, Inspections and Capital Repairs	2032	10 to 15	9	20,000.00	20,000	20,000	**4.7%**										26,095						
4.330	3	**1**	Each	Gates, Metal, Phased	2025	to 20	2 to 14	1,100.00	1,100	3,300	**0.4%**			1,167						1,393						1,664	
4.810	1	**1**	Allowance	Signage, Property Identification	2028	15 to 20	5	4,000.00	4,000	4,000	**0.5%**						4,637										
				Anticipated Expenditures, By Year ($2,317,409 over 30 years)								0	6,190	101,496	6,567	108,774	34,349	135,238	31,522	121,191	62,244	127,094	35,478	8,569	65,086	13,894	9,363

RESERVE EXPENDITURES

Horseshoe Bend
Homes Association
Sharpsburg, Maryland

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Remaining	Unit Cost (2023)	Per Phase Cost (2023)	Total Cost (2023)	Percentage of Future Expenditures	16 2039	17 2040	18 2041	19 2042	20 2043	21 2044	22 2045	23 2046	24 2047	25 2048	26 2049	27 2050	28 2051	29 2052	30 2053
4.015	1,780	**1,780**	Square Yards	Access Drive, South End, Gravel, Partial Replenishment and Regrading	2029	6 to 8	6	10.50	18,690	18,690	**5.4%**					33,756							41,516			
4.019	830	**830**	Square Yards	Asphalt Pavement, Access Drive, North End, Crack Repair, Patch and Chip Seal	2027	5 to 7	4	2.50	2,075	2,075	**0.9%**				3,639					4,218					4,890	
4.020	30,050	**6,010**	Square Yards	Asphalt Pavement, Main Roads and Spurs, Crack Repair and Patch, Phased	2024	3 to 5	1 to 5	1.00	6,010	30,050	**12.7%**	9,644	9,934	10,232	10,539	10,855	11,180	11,516	11,861	12,217	12,584	12,961	13,350	13,750	14,163	14,588
4.040	24,600	**4,920**	Square Yards	Asphalt Pavement, Main Roads, Mill and Overlay, Phased	2025	to 25	2 to 10	18.00	88,560	442,800	**64.2%**							169,690		180,024		190,988		202,619		214,958
4.041	5,450	**1,090**	Square Yards	Asphalt Pavement, Spurs, Mill and Overlay, Phased	2028	to 25	5 to 13	18.00	19,620	98,100	**11.2%**										41,080		43,582		46,236	
4.090	1	**1**	Allowance	Bridge, Concrete with Steel Frame, Inspections and Capital Repairs	2032	10 to 15	9	20,000.00	20,000	20,000	**4.7%**				35,070									47,131	
4.330	3	**1**	Each	Gates, Metal, Phased	2025	to 20	2 to 14	1,100.00	1,100	3,300	**0.4%**					1,987						2,372				
4.810	1	**1**	Allowance	Signage, Property Identification	2028	15 to 20	5	4,000.00	4,000	4,000	**0.5%**					7,224										
				Anticipated Expenditures, By Year ($2,317,409 over 30 years)								9,644	9,934	10,232	49,248	53,822	11,180	181,206	11,861	196,459	53,664	206,321	98,448	216,369	112,420	229,546

RESERVE FUNDING PLAN

CASH FLOW ANALYSIS
Horseshoe Bend
Homes Association
Sharpsburg, Maryland

Individual Reserve Budgets & Cash Flows for the Next 30 Years

		FY2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Reserves at Beginning of Year	*(Note 1)*	N/A	125,483	155,374	103,037	158,964	114,599	146,434	78,927	116,843	66,972	77,761	25,388	46,219	96,362	92,142	141,360
Total Recommended Reserve Contributions	*(Note 2)*	**N/A**	**33,300**	**46,600**	**59,900**	**61,700**	**63,600**	**65,500**	**67,500**	**69,500**	**71,600**	**73,700**	**55,600**	**57,300**	**59,000**	**60,800**	**62,600**
Estimated Interest Earned, During Year	*(Note 3)*	N/A	2,781	2,559	2,594	2,709	2,584	2,231	1,938	1,820	1,433	1,021	709	1,412	1,866	2,312	3,360
Anticipated Expenditures, By Year		N/A	(6,190)	(101,496)	(6,567)	(108,774)	(34,349)	(135,238)	(31,522)	(121,191)	(62,244)	(127,094)	(35,478)	(8,569)	(65,086)	(13,894)	(9,363)
Anticipated Reserves at Year End		$125,483	$155,374	$103,037	$158,964	$114,599	$146,434	$78,927	$116,843	$66,972	$77,761	$25,388 *(NOTE 5)*	$46,219	$96,362	$92,142	$141,360	$197,957
Predicted Reserves based on 2023 funding level of:	$20,000	125,483	141,941	62,469	77,286	(10,830)	(25,539)										

(continued)

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

	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Reserves at Beginning of Year	197,957	257,321	319,498	384,638	413,795	441,037	514,114	419,148	495,644	389,650	428,284	316,032	313,113	193,763	179,842
Total Recommended Reserve Contributions	**64,500**	**66,400**	**68,400**	**70,500**	**72,600**	**74,800**	**77,000**	**79,300**	**81,700**	**84,200**	**86,700**	**89,300**	**92,000**	**94,800**	**97,600**
Estimated Interest Earned, During Year	4,508	5,711	6,972	7,905	8,464	9,457	9,240	9,057	8,765	8,098	7,369	6,229	5,019	3,699	2,277
Anticipated Expenditures, By Year	(9,644)	(9,934)	(10,232)	(49,248)	(53,822)	(11,180)	(181,206)	(11,861)	(196,459)	(53,664)	(206,321)	(98,448)	(216,369)	(112,420)	(229,546)
Anticipated Reserves at Year End	$257,321	$319,498	$384,638	$413,795	$441,037	$514,114	$419,148	$495,644	$389,650	$428,284	$316,032	$313,113	$193,763	$179,842	$50,173 *(NOTES 4&5)*

Explanatory Notes:

1) Year 2023 ending reserves are projected by the Board as of December 31, 2023; FY2023 starts January 1, 2023 and ends December 31, 2023.
2) 2024 is the first year of recommended contributions.
3) **2.0%** is the estimated annual rate of return on invested reserves
4) Accumulated year 2053 ending reserves consider the age, size, overall condition and complexity of the property.
5) Threshold Funding Years (reserve balance at critical point).

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*.

Access Drive, South End, Gravel

Line Item: 4.015

Quantity: Approximately 1,780 square yards of gravel comprise the access drive at the south end of the community.

History: Unknown history of gravel replenishment and regrading.

Condition: Good to fair overall with gravel depletion evident.



Gravel access drive overview



Gravel access drive overview



Gravel access drive overview – *Note: gravel depletion*



Gravel depletion



Gravel depletion



Gravel depletion

Useful Life: Partial gravel replenishment and regrading every six- to eight-years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Our estimate of cost assumes gravel replenishment of up to twenty percent (20%) and limited regrading.

Asphalt Pavement, Repairs and Repaving

Line Items: 4.019 to 4.041

Quantity: The Association maintains approximately 830 square yards of asphalt pavement with a chip seal surface at the access drive in the north end of the community. Additionally, the community approximately 30,050 square yards of asphalt pavement with an untreated surface comprise the main roads and spurs throughout the community.

Approximately 24,600 square yards of asphalt comprise the main roads, and 5,450 square yards comprise the spurs serving a limited number of lots.

History:

- Repaving: The Board informs us the north end access drive and main roads were last repaved from 2005 through 2007, and the spurs are at varying ages, likely dating from 2012 and beyond.
- Repairs: The Association conducts repairs to the asphalt pavement on an annual basis.

Condition: Varying good to fair condition with cracks, patching, deterioration and previous repairs evident.



Asphalt pavement overview – *Note: Southbend Lane*



Asphalt pavement with chip seal surface overview – *Note: Access drive at north end*



Asphalt pavement overview – *Note: spur*



Asphalt pavement overview – *Note: spur*



Pavement cracks and previous repairs – *Note: Horseshoe Bend Road*



Alligator cracks – *Note: Horseshoe Bend Road*



Alligator cracks and previous repairs – *Note: Horseshoe Bend Road*



Alligator cracks and previous repairs – *Note: Horseshoe Bend Road*



Cracks, patching and previous repairs – *Note: Horseshoe Bend Road*



Patching and previous repairs – *Note: Access drive at north end*



Alligator cracks and previous repairs – *Note: Sharmans Run*



Cracks and edge deterioration – *Note: spur*

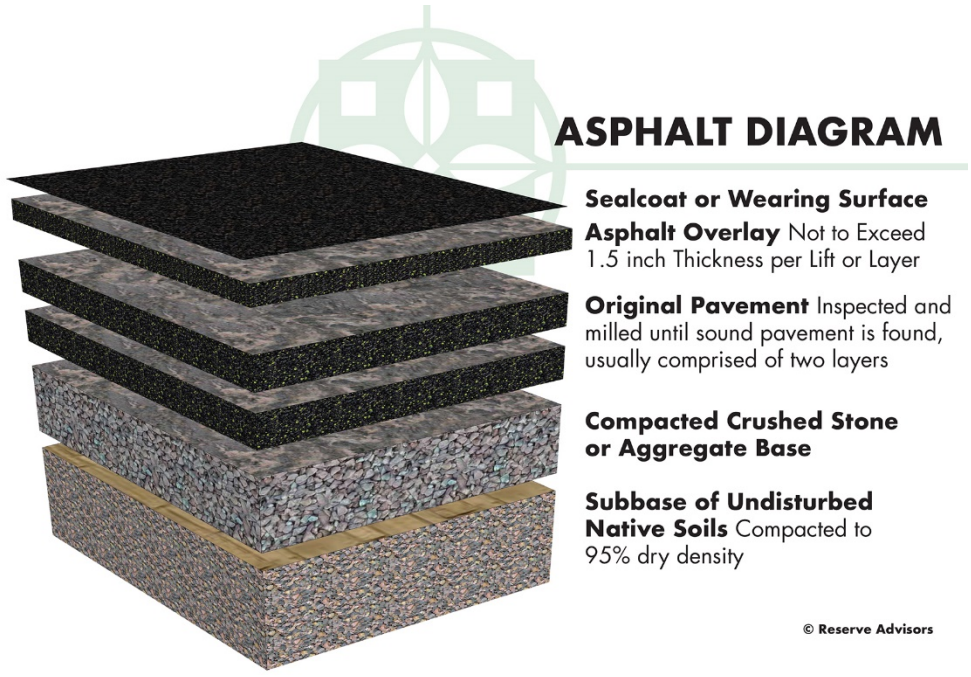


Alligator cracks – *Note: spur*

Useful Life: We recommend the Association conduct crack repairs, patching and chip seal applications to the north end access drive every five- to seven-years. Untreated pavement has a useful life of up to 25 years for repaving with the benefit of crack repair and patch events every three- to five-years.

Component Detail Notes: Proposals should include mechanically routing and filling all cracks with hot emulsion. Crack repair minimizes the chance of the cracks transmitting through the pavement. 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 Horseshoe Bend:



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 of repaving at Horseshoe Bend.

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 crack repairs and

patching of up to five percent (5%) of the pavement. Our cost for milling and overlayment includes area patching of up to twenty-five percent (25%).

Bridge, Concrete with Steel Frame

Line Item: 4.090

Quantity: The Association maintains one vehicular bridge comprising a steel frame with concrete driving surface at the south end of the community along Southbend Lane.

History: The bridge was completely rebuilt in 2012.

Condition: Good to fair overall with rust evident.



Vehicular bridge overview



Vehicular bridge overview



Metal guard rail overview – *Note: rust*

Useful Life: Bridges of this type of construction have indeterminate useful lives with the benefit of inspections and capital repairs conducted every 10- to 15-years to forestall deterioration.

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.

Gates, Metal

Line Item: 4.330

Quantity: Three metal gates located at the Horseshoe Bend entrance to the north access drive, Mills Road entrance to the south access drive and near 4132 Southbend Lane.

History: Varying ages.

Condition: Varying good to poor condition with finish deterioration, rust, damage and collapse evident.



Metal gate at north access drive



Metal gate at south access drive



Metal gate near 4132 Southbend Lane – *Note: collapsed gate*



Finish deterioration and rust



Finish deterioration and rust



Gate damage



Collapsed gate at Southbend Lane

Useful Life: Up to 20 years

Preventative Maintenance Notes: We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. 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:
    - Ensure gates operate freely
    - Inspect for any wear, rust and loose fasteners

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. We defer the timing of replacement of the metal gates based on the low priority expressed by the Board.

Signage, Property Identification

Line Item: 4.810

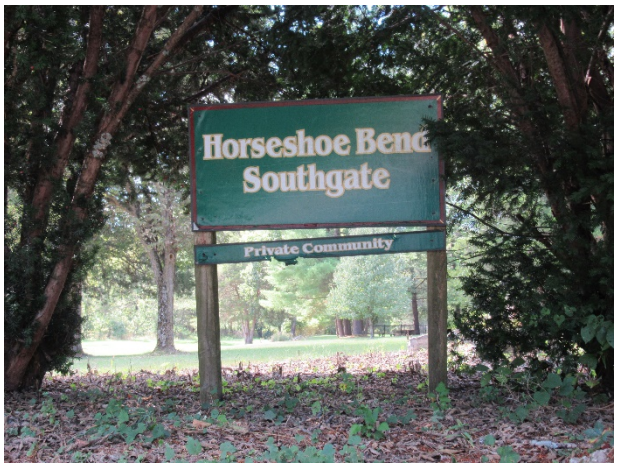
Quantity: Two property identification signs at the Burnside Bridge Road and Mills Road entrances to the community.

History: Unknown ages; repairs and touch up paint finish applications are conducted as needed.

Condition: Good to fair overall with wood rot evident.



North community entrance sign



South community entrance sign



Wood rot



Wood rot



Wood rot

Useful Life: 15- to 20-years

Component Detail Notes: The community signs contribute to the overall aesthetic appearance of the property to owners and potential buyers. 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 time for replacement of the signs is 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
    - 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.

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 in two- to 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.

Horseshoe Bend 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 Homeowners 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 standards[1] 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
- Local[2] 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 Sharpsburg, Maryland at an annual inflation rate[3]. Isolated or regional markets of

[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.

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

- The past and current maintenance practices of Horseshoe Bend 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.

LISA PHAM, RS
Engineer, Northeast Region
Responsible Advisor

CURRENT CLIENT SERVICES



Lisa Pham, a Mechanical Engineer, is an Advisor for Reserve Advisors. Ms. Pham is responsible for the inspection and analysis of the condition of clients' properties, and recommending engineering solutions to prolong the lives of the components. She also forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. She is responsible for conducting Life Cycle Cost Analyses and Capital Replacement Forecast services and the preparation of Reserve Study Reports for condominiums, townhomes, planned unit developments and homeowner associations.

The following is a partial list of clients served by Lisa Pham demonstrating the breadth of experiential knowledge of community associations in construction and related systems.

Eastchurch Homeowners Association, Inc. – Located in Frederick, Maryland, this community consists of 410 units comprising a mix of single family homes and townhomes. At the center of the community exists a clubhouse, originally constructed in 1817, which was home to the city's first mayor. After a full restoration, the historic Brengle Manor now houses amenities including a kitchen, multiple meeting rooms, a game room, an outdoor pavilion and a pool. Additionally, the community features two ponds, walking paths and a playground for residential use.

The Bindery Condominium Association – Located in Staunton, Virginia, this historic property was originally constructed in 1839 and part of Western State Hospital prior to its conversion to condominiums in 2008. Residents of the 19 condominium units are able to enjoy the original architecture and interior finishes without sacrificing modern amenities, allowing this property to become a proud recipient of Historic Staunton Foundation's Preservation Award.

Village Loft Condominiums – Located in Baltimore, Maryland, this five-story midrise houses 68 residential condominium units in addition to 7 commercial units. Residents are a short walk away from Johns Hopkins University, the Baltimore Museum of Art, and various retail establishments and restaurants with the luxury of a convenient private garage, balconies at each unit and rooftop decks.

921 Oceans Condominiums – Located in Virginia Beach, this 13-story oceanfront highrise is home to 24 condominium units. Providing residents with direct access to the boardwalk, a covered parking garage and balconies and terraces overlooking the beach, the property is secured with gated entries, and residents have the additional luxury of private pool access.

Lexington Square Condominiums – Located in Arlington, Virginia, this 10- to 11-story highrise comprises 367 units in four towers. Balconies and rooftop patios overlooking the city and Washington, D.C. provide residents with stunning views, and amenities include a modern party room, fitness center, private garage parking, multiple pools and a hot tub. Residents are just steps away from direct access to the Virginia Square and Ballston Metro stops as well as a wide variety of restaurants, shops and entertainment in this convenient location.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, LLC, Ms. Pham attended George Mason University in Fairfax, Virginia where she attained her Bachelor of Science degree in Mechanical Engineering. Her rigorous coursework focused on using problem solving to understand mechanical systems and principles. Additionally, Ms. Pham worked as an intern at Serco during her undergraduate education where she reviewed naval ship drawings and specifications to compile data regarding ship subsystems.

EDUCATION

George Mason University – B.S. Mechanical Engineering

PROFESSIONAL AFFILIATIONS/DESIGNATIONS

Reserve Specialist (RS) - Community Associations Institute

NICHOLAS R. JULIA, RS
Regional Engineering Manager, Northeast Region

CURRENT CLIENT SERVICES



Nicholas R. Julia, a Civil Engineer, is an Advisor for Reserve Advisors, LLC. Mr. Julia 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 condominiums, townhomes and homeowner associations. Nicholas Julia often serves as Quality Assurance Reviewer for all types of developments to ensure our reports maintain the level of quality which is expected of our firm.

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

One Park Crest Condominium is an upscale 19-story high rise building located in McLean, Virginia just outside of Washington, D.C. Residents enjoy an 18th floor club room and outdoor pool. The building also contains an exercise room, library, professionally decorated lobby and underground parking.

The Maryland Club is an exclusive club located in the heart of Baltimore, Maryland. The elegant white marble main building dates back to 1892. The club contains squash courts, a banquet area, a dining hall, and a professional kitchen amongst many other amenities.

Town of St. Michaels, a scenic town located on the Eastern Shore of Maryland. The town includes an administrative building, police station, public works garage and offices, and a historic log cabin. The municipality also maintains the asphalt pavement streets throughout the town, multiple parks, two water towers and a complex arsenic removal water treatment system.

One Loudoun Neighborhood Association is an upscale planned unit development comprising townhomes and single family homes located in Ashburn, Virginia. The property includes a high-end clubhouse with over 12,000 square feet of interior space including a gymnasium and yoga studio. The property also includes walking trails, multiple playgrounds, a tennis court, sports court, and a pool.

3883 Connecticut Avenue Condominium is a 10-story midrise located in Washington, D.C. The building was constructed in 2002 and contains luxurious amenities including an elevated outdoor pool on the 8th floor, party room, exercise facility and an underground parking garage.

Lake Petersburg Association This man-made lake community of 380 single family homes is located in Petersburg, Illinois. Components of the property include a community boat launch, dock, three tennis courts, a basketball court, two maintenance buildings, an office, and vehicular equipment. The Association also maintains an earthen dam on the far side of the lake.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Mr. Julia attended Marquette University in Milwaukee, Wisconsin where he attained his Bachelor of Science degree in Civil Engineering. His studies focused on transportation engineering and construction management engineering.

EDUCATION

Marquette University - B.S. Civil Engineering

PROFESSIONAL AFFILIATIONS / DESIGNATIONS

Engineer in Training (E.I.T.) – Washington D.C.
Reserve Specialist (RS) - Community Association 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

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 Horseshoe Bend 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) Horseshoe Bend 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.