

# RESERVE STUDY

## Cobblestone Homeowners Association, Inc.



**Tucson, Arizona**  
**July 16, 2020**



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Cobblestone Homeowners Association, Inc.  
Tucson, Arizona

Dear Board of Directors of Cobblestone Homeowners Association, Inc.:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Reserve Study* of Cobblestone Homeowners Association, Inc. in Tucson, Arizona and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, July 16, 2020.

This *Reserve Study* exceeds the Association of Professional Reserve Analysts (APRA) standards fulfilling the requirements of a "Level II 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. We recommend the Board budget for an Update to this Reserve Study in two- to three-years. We look forward to continuing to help Cobblestone 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 August 24, 2020 by

*Reserve Advisors, LLC*

Visual Inspection and Report by: Stephanie A. Mueller, RS<sup>1</sup>

Review by: Alan M. Ebert, RS, PRA<sup>2</sup>, Director of Quality Assurance



<sup>1</sup> 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.

<sup>2</sup> 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>.



Long-term thinking. Everyday commitment.

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# 1. RESERVE STUDY EXECUTIVE SUMMARY

**Client:** Cobblestone Homeowners Association, Inc. (Cobblestone)

**Location:** Tucson, Arizona

**Reference:** 161764

**Property Basics:** Cobblestone Homeowners Association, Inc. is a homeowners association which is responsible for the common elements shared by 130 single family homes. The community was built from 1980 to 1985.

**Reserve Components Identified:** 26 Reserve Components.

**Inspection Date:** July 16, 2020. We conducted the original inspection on January 24, 2017.

**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 2027 and 2047 due to replacement of asphalt streets.

**Cash Flow Method:** 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
- 0.9% anticipated annual rate of return on invested reserves
- 2.0% 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.

**Cash Status of Reserve Fund:**

- \$746,393 as of June 30, 2020
- 2020 budgeted Reserve Contributions of \$68,015

**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:

- Asphalt repairs to maximize overall useful life
- Replacement of deteriorated concrete based on condition
- Replacement of steel fences based on condition
- Irrigation system upgrade and xeriscaping to reduce future water usage
- Paint finishes and repairs at the perimeter walls

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

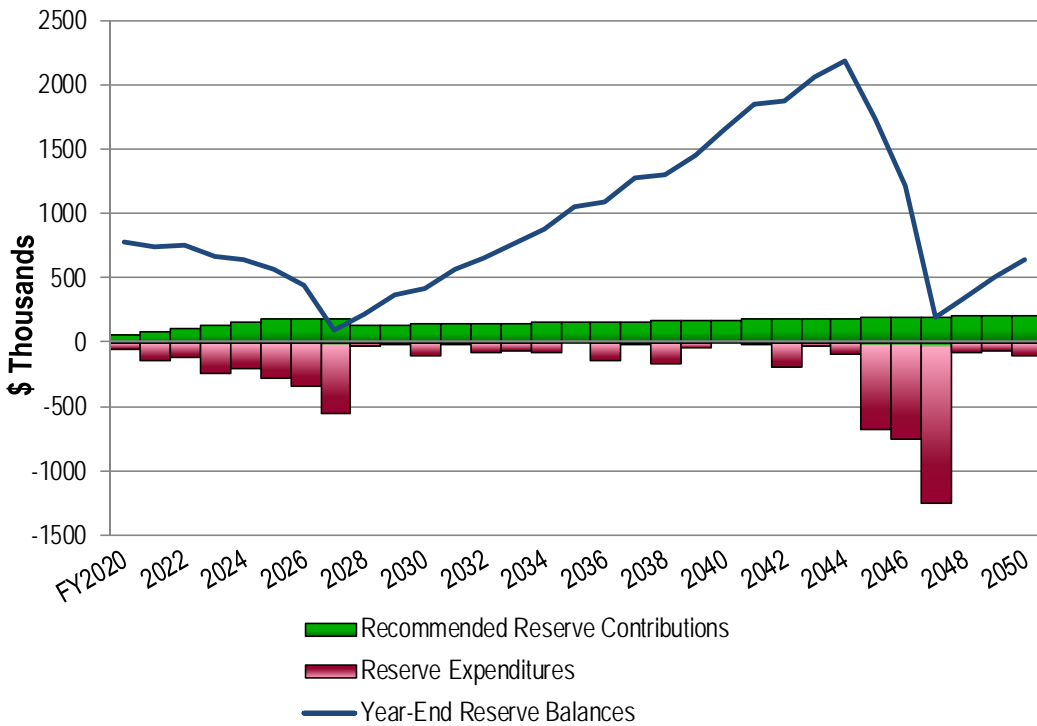
- Phased increases of approximately \$24,000 from 2021 through 2025
- Inflationary increases from 2026 through 2027
- Decrease to \$144,000 by 2028 due to fully funding for repaving of the streets
- Inflationary increases through 2050, the limit of this study's Cash Flow Analysis



- Initial adjustment in Reserve Contributions of \$23,985 represents an average annual increase of \$184.50 per homeowner and about a five percent (4.5%) adjustment in the 2020 total Operating Budget of \$538,228.

**Cobblestone**  
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2021	92,000	744,166	2031	152,800	566,362	2041	186,300	1,849,038
2022	116,000	755,695	2032	155,900	655,489	2042	190,000	1,867,742
2023	140,000	665,611	2033	159,000	768,581	2043	193,800	2,055,464
2024	164,000	642,125	2034	162,200	872,601	2044	197,700	2,186,469
2025	188,000	569,763	2035	165,400	1,046,599	2045	201,700	1,737,162
2026	191,800	436,874	2036	168,700	1,090,036	2046	205,700	1,208,704
2027	195,600	87,312	2037	172,100	1,269,626	2047	209,800	188,588
2028	144,000	215,092	2038	175,500	1,296,394	2048	214,000	338,407
2029	146,900	361,948	2039	179,000	1,453,888	2049	218,300	505,570
2030	149,800	418,475	2040	182,600	1,650,395	2050	222,700	643,456





## 2. RESERVE STUDY REPORT

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

**Cobblestone Homeowners Association, Inc.**

**Tucson, Arizona**

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, July 16, 2020. We conducted the original inspection on January 24, 2017.

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 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 the Municipality

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:



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

Long-Lived Property 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:

- Culverts, Storm Water Management System
- Electrical Systems, Common
- Foundations, Common
- Pipes, Interior Building, Domestic Water, Sanitary Waste and Vent, Common
- Pipes, Subsurface Utilities
- Structural Frames, Common

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. 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 \$3,500 *excluding* steel fence paint finishes (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Catch Basins, Landscape
- Culverts, Repairs
- Fire Extinguishers
- Gate, Finger Rock Road
- Irrigation System, Controls, Backflow Valves and Maintenance
- Landscape, Maintenance
- Paint Finishes, Touch Up
- Pavers, Masonry, Interim Repairs and Resetting
- Roof, Flat, Gate House, Interim Replacement
- Site Furniture
- Water Feature/fountain, Maintenance
- Water Heater, Office Building
- Other Repairs normally funded through the Operating Budget



**Gate at end of Finger Rock Road**



**Irrigation control**

Certain items have been 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:

- Homes and Lots
- Mailbox Stations, Housing and Mailboxes



**Mailbox station**

Certain items have been designated as the responsibility of others to repair or replace. Property Maintained by the Municipality relates to:

- Fence, Chain Link, North Perimeter, Cobblestone Road

### **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
- 2020 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

#### **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

Cobblestone  
Homeowners Association, Inc.  
Tucson, Arizona

**Explanatory Notes:**

1) **2.0%** is the estimated Inflation Rate for estimating Future Replacement Costs.

2) **FY2020** is Fiscal Year beginning January 1, 2020 and ending December 31, 2020.

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 FY2020	1 2021	2 2022	3 2023	4 2024	5 2025	6 2026	7 2027	8 2028	9 2029	10 2030	11 2031	12 2032	13 2033	14 2034	15 2035
						Useful	Remaining	Unit (2020)	Per Phase (2020)	Total (2020)																	
<b>Property Site Elements</b>																											
4.020	40,150	40,150	Square Yards	Asphalt Pavement, Crack Repair, Patch and Seal Coat	2023	3 to 5	3	1.10	44,165	44,165	6.5%				46,868							53,837				58,275	
4.040	40,150	13,383	Square Yards	Asphalt Pavement, Mill and Overlay, Phased	2025	15 to 25	5 to 7	13.50	180,675	542,025	10.8%						199,480	203,469	207,539								
4.045	40,150	13,383	Square Yards	Asphalt Pavement, Total Replacement, Phased	2045	15 to 25	25 to 27	25.00	334,583	1,003,750	29.6%																
4.110	29,700	1,485	Linear Feet	Concrete Curbs and Gutters, Partial	2023	to 65	3 to 30+	32.00	47,520	950,400	9.1%				50,429		52,466	53,515	54,586								
4.140	51,600	2,580	Square Feet	Concrete Sidewalks (Incl. Sidewalk Paver Repairs, 2020 is Budgeted), Partial	2020	to 65	0 to 30+	9.00	23,220	464,400	5.6%	3,000	23,685			25,134			26,673			28,305			30,038		
4.220	4,600	4,600	Linear Feet	Fences, Chain Link	2024	to 30	4	24.00	110,400	110,400	5.4%					119,501											
4.240	220	220	Linear Feet	Fences, Steel, Paint Finishes	2021	to 4	1	10.00	2,200	2,200	0.4%		2,244								2,629				2,846		
4.245	220	220	Linear Feet	Fences, Steel, Replacement	2025	to 40	5	57.00	12,540	12,540	0.2%						13,845										
4.320	3	1	Each	Gates and Operators, Swing Arm, Phased	2022	10 to 15	2 to 10	5,500.00	5,500	16,500	1.1%			5,722					6,194			6,704				7,257	
4.330	2	2	Each	Gates, Metal, Decorative, Community Entrance	2026	to 30	6	5,000.00	10,000	10,000	0.2%								11,262								
4.420	1	1	Allowance	Irrigation System, Mainline	2021	to 40+	1	29,415.00	29,415	29,415	0.5%		30,003														
4.499	4	1	Allowance	Landscape, Major Renovations/Xeriscaping, Phased (Incl. Related Irrigation)	2020	N/A	0 to 3	73,907.50	73,908	295,630	5.2%	34,680	66,980	54,815	139,155												
4.500	1	1	Allowance	Landscape, Partial Replacements	2028	to 5	8	15,000.00	15,000	15,000	1.9%									17,575					19,404		
4.620	1,250	1,250	Square Feet	Pavers, Masonry, Pedestrian	2026	to 25	6	10.50	13,125	13,125	0.7%							14,781									
4.621	21,450	21,450	Square Feet	Pavers, Masonry, Vehicular	2027	20 to 25	7	10.50	225,225	225,225	11.3%								258,713								
4.640	22,130	22,130	Square Feet	Perimeter Walls, Masonry, Inspections and Capital Repairs (Incl. Monuments)	2022	8 to 10	2	2.20	48,686	48,686	3.3%			50,653											61,746		
4.800	1	1	Allowance	Signage, Monuments, Renovations	2024	15 to 25	4	45,000.00	45,000	45,000	2.1%					48,709											
4.810	1	1	Allowance	Signage, Traffic, Replacement	2030	15 to 20	10	6,500.00	6,500	6,500	0.3%											7,923					
<b>Office Building and Gate House Elements</b>																											
5.310	1	1	Allowance	Exterior Renovations	2026	8 to 12	6	21,500.00	21,500	21,500	1.6%							24,212									
5.449	1	1	Allowance	HVAC Equipment, Gate House	2021	12 to 18	1	3,500.00	3,500	3,500	0.1%		3,570														
5.450	1	1	Allowance	HVAC Equipment, Office Building	2031	12 to 18	11	7,500.00	7,500	7,500	0.4%														9,325		
5.500	1	1	Allowance	Interior, Renovations, Complete	2036	to 20	16	36,000.00	36,000	36,000	0.9%																
5.510	1	1	Allowance	Interior, Renovations, Partial	2026	to 10	6	14,000.00	14,000	14,000	1.0%							15,766									
5.600	16	16	Squares	Roofs, Concrete Tiles (Incl. Gate House Flat Roof)	2046	to 30	26	1,000.00	16,000	16,000	0.5%																
5.705	1	1	Allowance	Security System, Proposed	2020	10 to 15	0	8,280.00	8,280	8,280	0.6%	8,280													10,501		
5.800	390	390	Square Feet	Windows and Doors	2049	to 35	29	40.00	15,600	15,600	0.5%																
<b>Anticipated Expenditures, By Year (\$5,668,430 over 30 years)</b>												45,960	126,482	111,190	236,452	193,344	265,791	329,199	547,510	17,575	2,629	96,769	9,325	72,247	52,288	65,532	0

## RESERVE EXPENDITURES

Cobblestone  
Homeowners Association, Inc.  
Tucson, Arizona

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$			Percentage of Future Expenditures	16 2036	17 2037	18 2038	19 2039	20 2040	21 2041	22 2042	23 2043	24 2044	25 2045	26 2046	27 2047	28 2048	29 2049	30 2050										
						Useful	Remaining	Unit (2020)	Per Phase (2020)	Total (2020)																										
<u>Property Site Elements</u>																																				
4.020	40,150	40,150	Square Yards	Asphalt Pavement, Crack Repair, Patch and Seal Coat	2023	3 to 5	3	1.10	44,165	44,165	6.5%			63,078				68,278								79,999										
4.040	40,150	13,383	Square Yards	Asphalt Pavement, Mill and Overlay, Phased	2025	15 to 25	5 to 7	13.50	180,675	542,025	10.8%																									
4.045	40,150	13,383	Square Yards	Asphalt Pavement, Total Replacement, Phased	2045	15 to 25	25 to 27	25.00	334,583	1,003,750	29.6%										548,919	559,898	571,096													
4.110	29,700	1,485	Linear Feet	Concrete Curbs and Gutters, Partial	2023	to 65	3 to 30+	32.00	47,520	950,400	9.1%			67,871							77,962	79,521	81,111													
4.140	51,600	2,580	Square Feet	Concrete Sidewalks (Incl. Sidewalk Paver Repairs, 2020 is Budgeted), Partial	2020	to 65	0 to 30+	9.00	23,220	464,400	5.6%	31,876			33,827				35,898			38,095			40,427											
4.220	4,600	4,600	Linear Feet	Fences, Chain Link	2024	to 30	4	24.00	110,400	110,400	5.4%												188,440													
4.240	220	220	Linear Feet	Fences, Steel, Paint Finishes	2021	to 4	1	10.00	2,200	2,200	0.4%		3,081				3,334				3,609				3,907											
4.245	220	220	Linear Feet	Fences, Steel, Replacement	2025	to 40	5	57.00	12,540	12,540	0.2%																									
4.320	3	1	Each	Gates and Operators, Swing Arm, Phased	2022	10 to 15	2 to 10	5,500.00	5,500	16,500	1.1%			7,855					8,503			9,204				9,962										
4.330	2	2	Each	Gates, Metal, Decorative, Community Entrance	2026	to 30	6	5,000.00	10,000	10,000	0.2%																									
4.420	1	1	Allowance	Irrigation System, Mainline	2021	to 40+	1	29,415.00	29,415	29,415	0.5%																									
4.499	4	1	Allowance	Landscape, Major Renovations/Xeriscaping, Phased (Incl. Related Irrigation)	2020	N/A	0 to 3	73,907.50	73,908	295,630	5.2%																									
4.500	1	1	Allowance	Landscape, Partial Replacements	2028	to 5	8	15,000.00	15,000	15,000	1.9%			21,424					23,653						26,115											
4.620	1,250	1,250	Square Feet	Pavers, Masonry, Pedestrian	2026	to 25	6	10.50	13,125	13,125	0.7%														23,308											
4.621	21,450	21,450	Square Feet	Pavers, Masonry, Vehicular	2027	20 to 25	7	10.50	225,225	225,225	11.3%													384,434												
4.640	22,130	22,130	Square Feet	Perimeter Walls, Masonry, Inspections and Capital Repairs (Incl. Monuments)	2022	8 to 10	2	2.20	48,686	48,686	3.3%								75,268																	
4.800	1	1	Allowance	Signage, Monuments, Renovations	2024	15 to 25	4	45,000.00	45,000	45,000	2.1%																									
4.810	1	1	Allowance	Signage, Traffic, Replacement	2030	15 to 20	10	6,500.00	6,500	6,500	0.3%														11,095											
<u>Office Building and Gate House Elements</u>																																				
5.310	1	1	Allowance	Exterior Renovations	2026	8 to 12	6	21,500.00	21,500	21,500	1.6%	29,515														35,978										
5.449	1	1	Allowance	HVAC Equipment, Gate House	2021	12 to 18	1	3,500.00	3,500	3,500	0.1%	4,805																								
5.450	1	1	Allowance	HVAC Equipment, Office Building	2031	12 to 18	11	7,500.00	7,500	7,500	0.4%														12,551											
5.500	1	1	Allowance	Interior, Renovations, Complete	2036	to 20	16	36,000.00	36,000	36,000	0.9%	49,420																								
5.510	1	1	Allowance	Interior, Renovations, Partial	2026	to 10	6	14,000.00	14,000	14,000	1.0%	19,219													23,428											
5.600	16	16	Squares	Roofs, Concrete Tiles (Incl. Gate House Flat Roof)	2046	to 30	26	1,000.00	16,000	16,000	0.5%														26,775											
5.705	1	1	Allowance	Security System, Proposed	2020	10 to 15	0	8,280.00	8,280	8,280	0.6%									13,318																
5.800	390	390	Square Feet	Windows and Doors	2049	to 35	29	40.00	15,600	15,600	0.5%														27,703											
<b>Anticipated Expenditures, By Year (\$5,668,430 over 30 years)</b>												134,835	3,081	160,228	33,827	0	3,334	187,947	23,653	85,698	668,585	747,355	1,236,176	66,542	54,918	89,961										

## RESERVE FUNDING PLAN

### CASH FLOW ANALYSIS

Cobblestone

Homeowners Association, Inc.

Tucson, Arizona

#### Individual Reserve Budgets & Cash Flows for the Next 30 Years

		FY2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Reserves at Beginning of Year	<i>(Note 1)</i>	746,393	771,856	744,166	755,695	665,611	642,125	569,763	436,874	87,312	215,092	361,948	418,475	566,362	655,489	768,581	872,601
Total Recommended Reserve Contributions	<i>(Note 2)</i>	68,015	92,000	116,000	140,000	164,000	188,000	191,800	195,600	144,000	146,900	149,800	152,800	155,900	159,000	162,200	165,400
Estimated Interest Earned, During Year	<i>(Note 3)</i>	3,408	6,792	6,719	6,367	5,858	5,429	4,510	2,348	1,355	2,585	3,496	4,412	5,474	6,380	7,352	8,598
Anticipated Expenditures, By Year		(45,960)	(126,482)	(111,190)	(236,452)	(193,344)	(265,791)	(329,199)	(547,510)	(17,575)	(2,629)	(96,769)	(9,325)	(72,247)	(52,288)	(65,532)	0
Anticipated Reserves at Year End		<u>\$771,856</u>	<u>\$744,166</u>	<u>\$755,695</u>	<u>\$665,611</u>	<u>\$642,125</u>	<u>\$569,763</u>	<u>\$436,874</u>	<u>\$87,312</u>	<u>\$215,092</u>	<u>\$361,948</u>	<u>\$418,475</u>	<u>\$566,362</u>	<u>\$655,489</u>	<u>\$768,581</u>	<u>\$872,601</u>	<u>\$1,046,599</u>

*(NOTE 5)*

(continued)

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

		2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
Reserves at Beginning of Year		1,046,599	1,090,036	1,269,626	1,296,394	1,453,888	1,650,395	1,849,038	1,867,742	2,055,464	2,186,469	1,737,162	1,208,704	188,588	338,407	505,570
Total Recommended Reserve Contributions		168,700	172,100	175,500	179,000	182,600	186,300	190,000	193,800	197,700	201,700	205,700	209,800	214,000	218,300	222,700
Estimated Interest Earned, During Year		9,572	10,571	11,495	12,321	13,907	15,677	16,651	17,575	19,003	17,577	13,197	6,260	2,361	3,781	5,147
Anticipated Expenditures, By Year		(134,835)	(3,081)	(160,228)	(33,827)	0	(3,334)	(187,947)	(23,653)	(85,698)	(668,585)	(747,355)	(1,236,176)	(66,542)	(54,918)	(89,961)
Anticipated Reserves at Year End		<u>\$1,090,036</u>	<u>\$1,269,626</u>	<u>\$1,296,394</u>	<u>\$1,453,888</u>	<u>\$1,650,395</u>	<u>\$1,849,038</u>	<u>\$1,867,742</u>	<u>\$2,055,464</u>	<u>\$2,186,469</u>	<u>\$1,737,162</u>	<u>\$1,208,704</u>	<u>\$188,588</u>	<u>\$338,407</u>	<u>\$505,570</u>	<u>\$643,456</u>

*(NOTE 5)*

*(NOTE 4)*

#### Explanatory Notes:

- 1) Year 2020 starting reserves are as of June 30, 2020; FY2020 starts January 1, 2020 and ends December 31, 2020.
- 2) Reserve Contributions for 2020 are budgeted; 2021 is the first year of recommended contributions.
- 3) 0.9% is the estimated annual rate of return on invested reserves; 2020 is a partial year of interest earned.
- 4) Accumulated year 2050 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

**Cobblestone  
Homeowners Association, Inc.  
Tucson, Arizona**

---

Line Item	Reserve Component Inventory	RUL = 0 FY2020	1 2021	2 2022	3 2023	4 2024	5 2025
<u>Property Site Elements</u>							
4.020	Asphalt Pavement, Crack Repair, Patch and Seal Coat				46,868		
4.040	Asphalt Pavement, Mill and Overlay, Phased						199,480
4.110	Concrete Curbs and Gutters, Partial				50,429		52,466
4.140	Concrete Sidewalks (Incl. Sidewalk Paver Repairs, 2020 is Budgeted), Partial	3,000	23,685			25,134	
4.220	Fences, Chain Link					119,501	
4.240	Fences, Steel, Paint Finishes		2,244				
4.245	Fences, Steel, Replacement						13,845
4.320	Gates and Operators, Swing Arm, Phased			5,722			
4.420	Irrigation System, Mainline		30,003				
4.499	Landscape, Major Renovations/Xeriscaping, Phased (Incl. Related Irrigation)	34,680	66,980	54,815	139,155		
4.640	Perimeter Walls, Masonry, Inspections and Capital Repairs (Incl. Monuments)			50,653			
4.800	Signage, Monuments, Renovations					48,709	
<u>Office Building and Gate House Elements</u>							
5.449	HVAC Equipment, Gate House		3,570				
5.705	Security System, Proposed	8,280					
<b>Anticipated Expenditures, By Year (\$5,668,430 over 30 years)</b>		<b>45,960</b>	<b>126,482</b>	<b>111,190</b>	<b>236,452</b>	<b>193,344</b>	<b>265,791</b>

## 4. RESERVE COMPONENT DETAIL

The Reserve Component Detail of this *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, Crack Repair, Patch and Seal Coat**

---

**Line Item:** 4.020

**Quantity:** Approximately 40,150 square yards of streets

**History:** Last seal coat in 2019 and previously in 2015

**Condition:** Good overall

**Useful Life:** Three- to five-years

**Component Detail Notes:** Proposals for seal coat applications should include crack repairs and patching. The contractor should only apply seal coat applications after repairs are completed. A seal coat does not bridge or close cracks; therefore, unrepaired cracks render the seal coat applications useless.

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost is based, in part, on previous information provided by the Association and includes an allowance for crack repairs and patching of up to two percent (2%) of the pavement.

#### **Asphalt Pavement, Repaving**

---

**Line Items:** 4.040 and 4.045

**Quantity:** Approximately 40,150 square yards of streets

**History:** The exact age of the pavement is unknown but was likely overlaid since original construction.



**Condition:** Fair overall and isolated areas are in poor condition. We note cracks throughout the pavement, areas of edge deterioration and raveling, settlement, and standing water evident.



**Asphalt pavement street overview at East Ina Road**



**Various cracks at East Ina Road**



**Pavement raveling and standing water at East Ina Road**



**North Cobblestone Road**



**Cracks and edge settlement at North Cathedral Rock Road**



**Raveling and cracks at East Cathedral Rock Circle**



**Various cracks at East Finger Rock Road**



**North Catalina Ridge Drive overview**



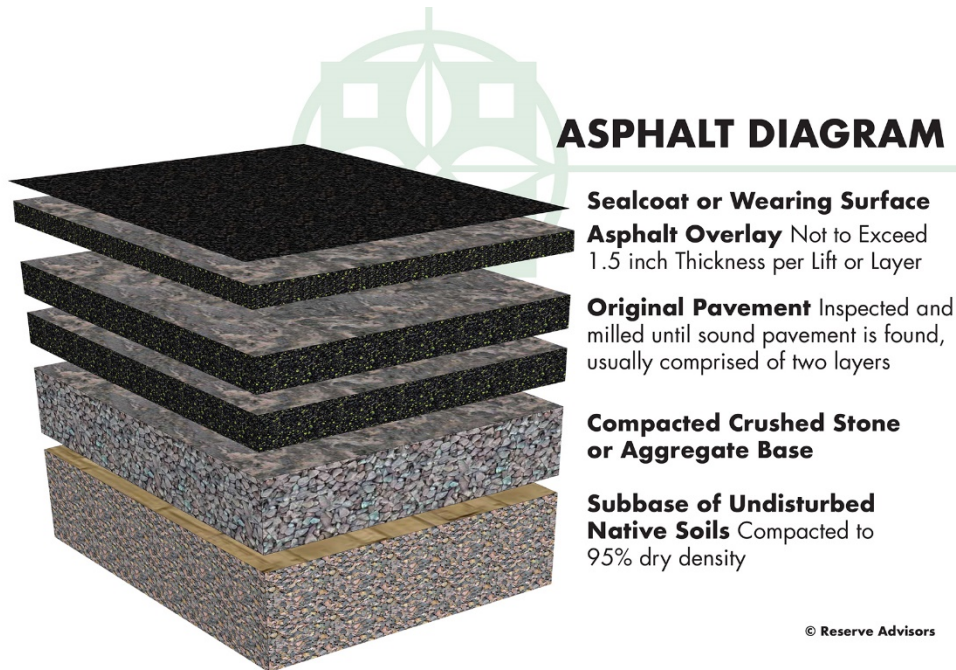
**Cracks throughout at East Sun Cloud Place**



**Edge cracks and raveling at North Moon Spirit Lane**

**Useful Life:** 15- to 25-years with the benefit of timely crack repairs and patching

**Component Detail Notes:** 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 Cobblestone:



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 Cobblestone.

**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 for milling and overlayment includes area patching of up to ten percent (10%).

## Concrete Curbs and Gutters

---

**Line Item:** 4.110

**Quantity:** Approximately 29,700 linear feet

**Condition:** Fair overall with cracks, spalls and damage evident especially near the entrance and adjacent to the irrigated lawns



**Concrete spalls and cracks near entrance**



**Spalls and cracks near entrance**



**Damaged curb at Window Peak Road**

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

**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 11,880 linear feet of curbs and gutters, or forty percent (40%) of the total, will require replacement during the next 30 years.

## Concrete Sidewalks

---

**Line Item:** 4.140

**Quantity:** Approximately 51,600 square feet

**Condition:** Condition varies overall with several areas of settlement, trip hazard and cracks evident. We also note consistent cracks at the sidewalks at the cul-de-sac islands.



**Concrete sidewalk cracks near entrance**



**Sidewalk cracks**



**Sidewalk settlement**



**Typical cracks at cul-de-sac island**



**Trip hazard near Blossom Dancer Lane and  
Catalina Ridge Drive**

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

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. The Association budgeted to expend approximately \$3,000 in 2020. We estimate that up to 25,800 square feet of concrete sidewalks, or forty percent (40%) of the total, will require replacement during the next 30 years.

## **Fences, Chain Link**

---

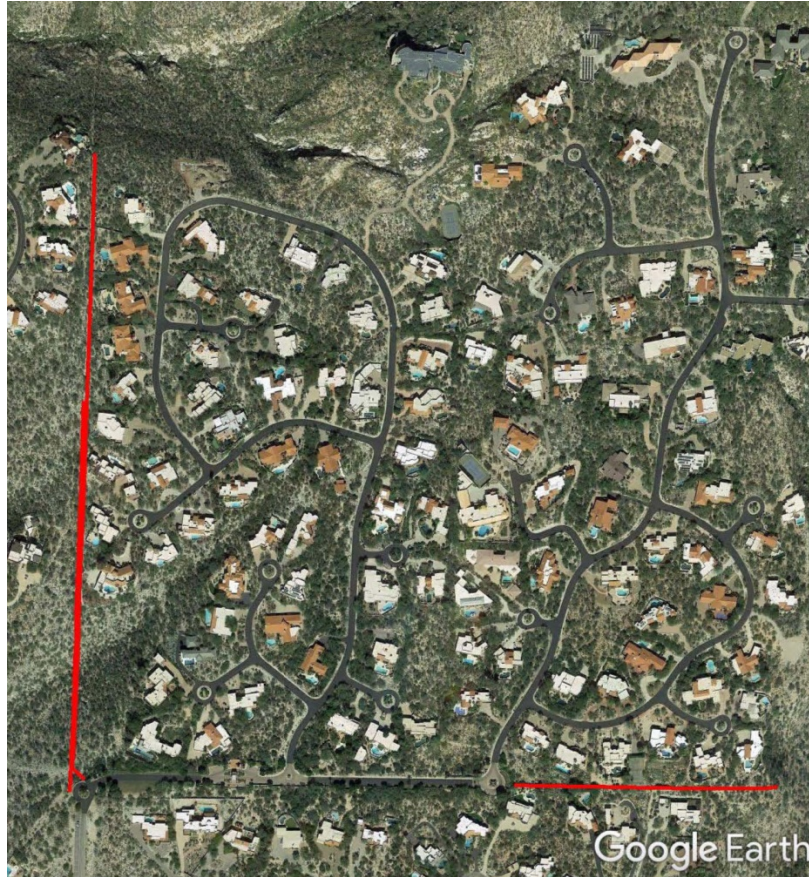
**Line Item:** 4.220

**Quantity:** 4,600 linear feet located along portions of the west and south perimeters

**History:** Primarily original

**Condition:** Fair overall with rust and lean evident, and the Board reports repaired damaged sections.

The following aerial imagery depicts the approximate fence locations:



**Chain link fence**



**Rust**

**Useful Life:** Up to 30 years

**Priority/Criticality:** Per Board discretion

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

## Fences, Steel

---

**Line Items:** 4.240 and 4.245

**Quantity:** 220 linear feet located at the entrance monuments, gate house, office building and perimeter walls

**History:** The fences are original and the protective finishes are more than four years of age.

**Condition:** The fences are in fair overall condition and the protective finishes are in poor overall condition with typical paint deterioration, discoloration and rust evident.



Typical rust



Typical rust and paint deterioration



Significant paint deterioration and corrosion at post pocket



Damaged picket

**Useful Life:** Up to four years for paint finishes and up to 40 years for replacement

**Component Detail Notes:** Steel components at grade and key structural connections are especially prone to failure if not thoroughly maintained. Secure and rust free



fasteners and connections will prevent premature deterioration. Preparation of the steel before application of the paint finish is critical to maximize the useful life of the finish.

**Priority/Criticality:** Per Board discretion

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

## Gates and Operators

---

**Line Items:** 4.320 and 4.330

**Quantity:** Three swing arm gates with operators and two decorative gates at the main entrance

**History:** The swing arm gates and operators vary in age. One decorative gate was replaced in approximately 2016 and the remaining gate is likely original.

**Condition:** Conditions vary overall



**Gate arm and operator**



**Decorative gates**



**Rust and finish deterioration at decorative gate**

**Useful Life:** 10- to 15-years for the operators and up to 30 years for the gates

**Priority/Criticality:** Not recommended to defer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost for the swing arm gates and operators is based on previous information provided by the Association.

## **Irrigation System**

---

**Line Item:** 4.420

**Quantity:** Approximately 18,000 square feet of grass areas near the entrance and various drip irrigation at common areas throughout the community

**History:** Primarily original

**Condition:** Fair overall and the Board reports the Association will likely xeriscape the grass areas in the near term in conjunction with other landscaping renovations. However, we are informed the exact timing and scope of work may vary.



**Grass area**

**Useful Life:** Up to and sometimes beyond 40 years

**Component Detail Notes:** Irrigation systems typically include the following components:

- Electronic controls (timer)
- Impact rotors
- Network of supply pipes
- Pop-up heads
- Drip tubing with emitters
- Valves

Cobblestone should anticipate interim and partial replacements of the system network supply pipes and other components as normal maintenance to maximize the useful life of the irrigation system. The Association should fund these ongoing seasonal repairs through the operating budget.

**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 for replacement of the mainline is based on a bid estimate provided by the Association. Remaining irrigation expenses are included under the line item “**Landscape, Major Renovations**”.

## **Landscape**

---

**Line Items:** 4.499 and 4.500

**Component Detail Notes:** The Association contains a large quantity of trees, shrubbery, cacti 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.

**Useful Life:** At the request of the Board, we include a landscape allowance for partial replacements 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. The Association budgeted to expend approximately \$34,680 in 2020 based on a bid estimate for Phase I major landscaping renovations. We also include expenditures for Phases II, III and IV based on bid estimates beginning in 2021 and concluding by 2023. These activities include new plants, cacti and trees, LED lighting, various irrigation components, boulders and granite, and installation of approximately 1,880 square feet of artificial turf. Updates to the reserve study will revisit the scope of work completed and the need to reserve for future replacements.

## Pavers, Masonry

---

**Line Items:** 4.620 and 4.621

**Quantity:**

- Pedestrian (near office building and water feature) – 1,250 square feet
- Vehicular – 21,405 square feet

**History:** Age is unknown

**Condition:** Fair overall with minor spalls, cracks and settlement evident especially at the pedestrian pavers



**Pedestrian pavers in front of office building**



**Cracks and spalls**



**Settlement at pavers adjacent to fountain water feature**



**Vehicular pavers near gate house**

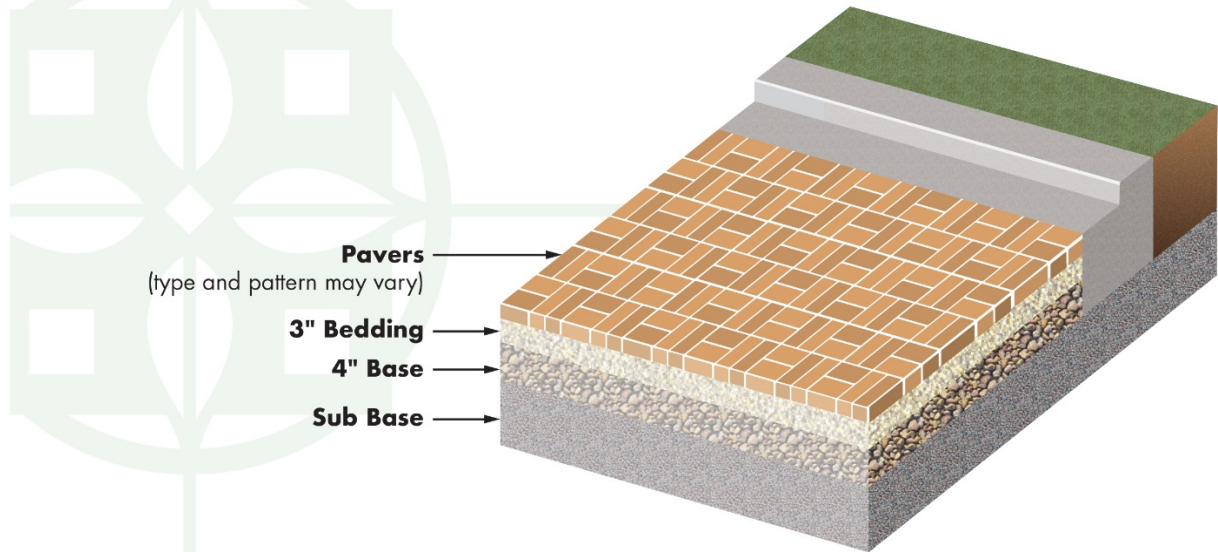


**Vehicular pavers**

**Useful Life:** Up to 25 years

**Component Detail Notes:** The following diagram depicts the typical components of a masonry paver system although it may not reflect the actual configuration at Cobblestone:

## MASONRY PAVER DIAGRAM



© Reserve Advisors

**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 coordinate replacement of the vehicular pavers with asphalt repaving. We suggest the Association conduct interim resetting and replacement of minor areas of pavers as normal maintenance, funded from the operating budget.

### Perimeter Walls, Masonry

---

**Line Item:** 4.640

**Quantity:** 2,600 linear feet and approximately 22,130 square feet of surface area. The walls are located at the south perimeter along Ina Road and at the traffic circles throughout the community.

**History:** Year of last paint application is unknown

**Condition:** The paint finish is in poor condition and we note areas of mortar deterioration, spalls, efflorescence and peeling paint.

The following aerial imagery depicts the perimeter walls at the south perimeter:



**Finish deterioration and efflorescence at perimeter wall**



**Efflorescence and peeling paint finish at coping**



**Spalled masonry at base of wall**



**Mortar deterioration at base of wall**



**Paint deterioration**



**Masonry deterioration**

**Useful Life:** Indefinitely long with periodic inspections, paint finishes and repairs every 8- to 10-years to forestall deterioration.

**Component Detail Notes:** Paint applications on masonry must allow entrained moisture in the masonry to migrate to the masonry surface and evaporate. A non-permeable paint application traps this moisture and increases masonry spalling, efflorescence and eventual degradation of the paint application. The prior types of paint, applications and methods of preparation affect the ability of the masonry to dissipate entrained moisture. We cannot determine the type of paint, application conditions or methods due to the visual and non-invasive nature of our inspection. The use of a permeable masonry paint application *may* also cover presently unobservable mortar and/or masonry deterioration requiring repair.

We recommend Cobblestone remove the existing paint application prior to the application of a new coat. The Association should use a water pressure wash removal method rather than by silica or sandblasting. Sandblasting will likely remove the outer face of the masonry and increase the probability of future spalling and water infiltration. After removal of the prior applications of paint, Cobblestone should then conduct



general repointing repairs to the masonry and mortar as mentioned in the previous narrative. The Association should apply a new permeable paint application specifically designed for masonry applications as per the manufacturer's directions.

**Priority/Criticality:** Not recommended to defer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our estimate of cost includes an inspection, paint finishes and repointing of up to five percent (5%) of the masonry.

## Signage, Monuments

---

**Line Item:** 4.800

**Quantity:** Various property identification and street monument signs

**History:** History of major renovation was not reported though repairs were conducted at the water feature in recent years.

**Condition:** Condition varies overall



**Monuments**



**Water feature monument**



**Concrete tiles**



**Street monument**

**Useful Life:** 15- to 25-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. The signage includes the following elements:

- Decorative wall tile
- Light fixtures
- Letters
- Roof, concrete tile
- Masonry (we include additional renovations under a separate line item, "Perimeter Walls, Masonry")

**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 repointing and repairs to the masonry and replacement of the remaining components listed above.

## **Signage, Traffic**

---

**Line Item:** 4.810

**History:** Replaced in approximately 2013

**Condition:** Good to fair overall



**Minor finish deterioration**

**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.

**Priority/Criticality:** Per Board discretion

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

## Office Building and Gate House Elements



Office building



Gate house

### Exterior Renovations

---

**Line Item:** 5.310

**History:** Renovated in 2016

**Condition:** Good overall condition



Exterior overview

**Useful Life:** Exterior renovations every 8- to 12-years

**Component Detail Notes:**

- 3,900 square feet of painted masonry
- Awnings
- Decorative wall tile

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost is based, in part, on previous information provided by the Association. Renovations should include the following:

- Application of paint finish including partial repairs of up to five percent (5%) of the masonry
- Replacement of awnings
- Repairs to the decorative tile as needed

## Interior Renovations

---

**Line Items:** 5.500 and 5.510

**History:** Renovated in 2016

**Condition:** Good overall with the exception of minor carpet stains



**Office building meeting room**



**Kitchenette**



**Carpet stains**



**Gate house**



**Useful Life:** Complete interior renovation up to 20 years and partial renovations up to 10 years

**Component Detail Notes:** The office building and gate house interior comprises approximately 550 square feet of finished area which includes:

- Carpet and tile floor coverings
- Paint finishes on the walls and ceilings
- Plumbing fixtures
- Light fixtures including exit and emergency lights
- Kitchen cabinets and countertops
- Furnishings including desks, tables and chairs
- Various appliances including a refrigerator and microwave
- Office equipment

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. The complete renovation should include replacement of all the interior components listed above and the partial renovations should include the following:

- Application of paint finish to all surfaces
- Replacement of the carpet
- Replacement of up to fifty percent (50%) of the appliances and furnishings
- Replacement of the office equipment

## **HVAC Equipment**

---

**Line Items:** 5.449 and 5.450

**History:** Replaced in 2016

**Condition:** The gate house equipment is reported in unsatisfactory condition and the Association will possibly replace the existing system with a ductless split system or similar system.



**Current HVAC unit at gate house**

**Useful Life:** 12- to 18-years

**Component Detail Notes:**

- Remote condensing units
- Gas-fired forced air furnaces

**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.

## **Roofs, Concrete Tiles**

---

**Line Item:** 1.360

**Quantity:** Approximately 16 squares<sup>1</sup>

**History:** Replaced in 2016

**Condition:** Good overall with no significant deterioration evident. The Board does not report a history of leaks.

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



**Concrete tile roof**

**Useful Life:** Up to 30 years

**Component Detail Notes:** A tile roof rarely fails at all points of application simultaneously. Rather, occurrences of roof leaks will increase as more concrete tiles crack, break and dislodge. This deterioration will result in increased maintenance costs such that replacement becomes the least costly long-term alternative as compared to ongoing repairs.

**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 previous information provided by the Association.

## **Security System**

---

**Line Item:** 5.705

**Component Detail Notes:** The Board informs us the Association will install a camera surveillance security system in the near term. The proposed system will utilize the following security system components:

- Cameras (six)
- Recorder (1)

**Useful Life:** 10- to 15-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:

- Monthly:



- Check cameras for proper focus, fields of view are unobstructed and camera and lenses are clean and dust-free
- Check recording equipment for proper operation
- Verify monitors are free from distortion with correct brightness and contrast
- Annually:
  - Check exposed wiring and cables for wear, proper connections and signal transmission
  - Check power connections, and if applicable, functionality of battery power supply systems

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost is based on a bid estimate provided by Management. The exact timing may vary though the Association should anticipate replacement of all of the security system components per event.

## Windows and Doors

---

**Line Item:** 5.800

**Quantity:** 390 square feet

**History:** Replaced in 2016

**Condition:** Good overall condition



**Window and door**

**Useful Life:** Up to 35 years

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

- Wood and aluminum frames
- Dual pane glass
- Fixed windows
- Hinged and sliding doors

**Priority/Criticality:** Not recommended to defer

**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.

Cobblestone 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<sup>1</sup> set forth by the Association of Professional Reserve Analysts (APRA) fulfilling the requirements of a "Level II Reserve Study Update." 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<sup>2</sup> 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 Tucson,

<sup>1</sup> Identified in the APRA "Standards - Terms and Definitions" and the CAI "Terms and Definitions".

<sup>2</sup> See Credentials for additional information on our use of published sources of cost data.

Arizona at an annual inflation rate<sup>3</sup>. Isolated or regional markets of greater construction (development) activity may experience slightly greater rates of inflation for both construction materials and labor.

- The past and current maintenance practices of Cobblestone 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.

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



## 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 principals are founders of Community Associations Institute's (CAI) Reserve Committee that developed national standards for reserve study providers. One of our principals 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 the 2,600,000-square foot 98-story Trump International Hotel and Tower in Chicago. 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.

**STEPHANIE A. MUELLER, P.E., RS**  
**Responsible Advisor**

**CURRENT CLIENT SERVICES**

Stephanie A. Mueller, a Civil Engineer, is an Advisor for Reserve Advisors. Ms. Mueller 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 Analysis and Capital Replacement Forecast services on townhomes and planned unit developments.



The following is a partial list of clients served by Stephanie Mueller demonstrating her breadth of experiential knowledge of community associations in construction and related buildings systems.

**Pinnacle Pointe** Located in Scottsdale, this gated community comprises 84 condominium units with stucco façade and foam roofs built from 2008 to 2015. The community includes a pool and spa, and exercise facility.

**Vistancia Village** This Peoria community of more than 3,000 homes features two amenity centers with recreational and lap pools, water slides, playgrounds, sport courts, and indoor gymnasium. The community includes nine gated parcels.

**Mountain Park Ranch** A large-scale community with more than 7,000 units in southern Phoenix with views of South Mountain Park features three amenity centers with multiple pools, tennis courts and playgrounds.

**Privada Community** Construction of this exclusive neighborhood in Scottsdale began in 2002. The community includes gated entry, streets, an irrigation system and detailed landscaping.

**Sunset Point II** Located in Tucson, this community comprises 273 single family homes built in 1987. The primary amenities are a pool, spa and wading pool.

**Holiday at Pueblo del Sol** Located in Sierra Vista, this homeowners association still under development includes a community center with fitness and meeting rooms, two pools, walking paths, and parks with playgrounds and gazebos.

**Saguaro Co-op** 354 members at this Benson cooperative development constructed since 1990. The co-up includes a central clubhouse with meeting spaces, information technology for members and asphalt pavement access streets.

**PRIOR RELEVANT EXPERIENCE**

Before joining Reserve Advisors, Ms. Mueller attended the University of Wisconsin in Madison, Wisconsin where she attained her Bachelor of Science degree in Civil Engineering. Her studies focused on structural engineering. At the University of Wisconsin, she managed a team responsible for the design of a new drinking water facility for a rural Wisconsin town.

**EDUCATION**

University of Wisconsin-Madison - B.S. Civil Engineering  
University of Wisconsin-Milwaukee - M.S. Civil Engineering

**PROFESSIONAL AFFILIATIONS**

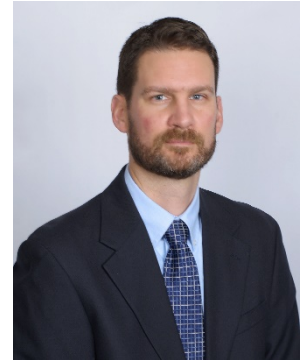
*Reserve Specialist (RS)* – Community Associations Institute  
*Professional Engineer (P.E.)* – Wisconsin, Arizona

**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](http://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](http://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](http://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](http://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 Cobblestone 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) Cobblestone 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 property.

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. The report is based upon a "snapshot in time" at the moment of inspection. RA may note visible physical defects in our report. The inspection is made by employees generally familiar with real estate and building construction but in the absence of invasive testing RA cannot opine on, nor is RA responsible for, the structural integrity of the property including its conformity to specific governmental code requirements for fire, building, earthquake, and occupancy, or any physical defects that were not readily apparent during the inspection.

RA is not responsible for conditions that have changed between the time of inspection and the issuance of the report. 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 water, oil, gas, coal, or other subsurface mineral and use rights or such hidden conditions. RA assumes no responsibility for any such conditions. The Report contains opinions of estimated costs and remaining useful lives which are neither a guarantee of the actual costs of replacement nor a guarantee of remaining useful lives of any property element.

RA assumes, without independent verification, the accuracy of all data provided to it. You agree to indemnify and hold RA harmless against and from any and all losses, claims, actions, damages, expenses or liabilities, including reasonable attorneys' fees, to which we may become subject in connection with this engagement, because of any false, misleading or incomplete information which we have relied upon 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. Your obligation for indemnification and reimbursement shall extend to any director, officer, employee, affiliate, or agent of RA. Liability of RA and its employees, affiliates, and agents for errors and omissions, if any, in this work is limited to the amount of its compensation for the work performed in this engagement.

**Report** - RA completes the services in accordance with the Proposal. The Report represents a valid opinion of RA's findings and recommendations and is deemed complete. RA, however, considers any additional information made available to us within 6 months of issuing the Report if a timely request for a revised Report is made. 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.

**Your Obligations** - You agree to provide us access to the subject property for an on-site visual 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. 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 this Report is limited to only the purpose stated herein. You hereby acknowledge that any use or reliance by you on the Report for any unauthorized purpose is at your own risk and you shall hold RA harmless from any consequences of such use. Use by any unauthorized third party is unlawful. 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 our Report in its entirety to the following third parties: members of your organization, your accountant, attorney, financial institution and property manager who need to review the information contained herein. Without the written consent of RA, you shall not disclose the Report to any other third party. The Report contains intellectual property developed by RA and **shall not be reproduced or distributed to any party that conducts reserve studies without the written consent of RA**.

RA will include your name in our client lists. RA reserves the right to 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** - Retainer payment is due upon authorization and prior to inspection. The balance is due net 30 days from the report shipment date. Any balance remaining 30 days after delivery of the Report shall accrue an interest charge of 1.5% per month. Any litigation necessary to collect an unpaid balance shall be venued in Milwaukee County Circuit Court for the State of Wisconsin.