

FULL RESERVE STUDY

Autumn Lake Property Owners Association



Pearland, Texas
December 5, 2017



This Report contains intellectual property developed by Reserve Advisors, Inc. and cannot be reproduced or distributed to those who conduct reserve studies without their written consent.

Autumn Lake Property Owners Association
Pearland, Texas

Dear Board of Directors of Autumn Lake Property Owners Association:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Full Reserve Study* of Autumn Lake Property Owners Association in Pearland, Texas and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, December 5, 2017.

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 years. We look forward to continuing to help Autumn Lake Property Owners Association plan for a successful future.

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

Respectfully submitted on January 8, 2018 by

Reserve Advisors, Inc.

Visual Inspection and Report by: Andrew L. Stoutenburg, RS² and Jaison T. Thomas
Review by: Alan M. Ebert, PRA¹, RS, Director of Quality Assurance



¹ 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>.

² 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.



Long-term thinking. Everyday commitment.

Table of Contents

1. RESERVE STUDY EXECUTIVE SUMMARY	1.1
2. RESERVE STUDY REPORT	2.1
3. RESERVE EXPENDITURES and FUNDING PLAN.....	3.1
4. RESERVE COMPONENT DETAIL.....	4.1
Property Site Elements	4.1
Bulkheads, Timber.....	4.1
Docks, Wood, Floating	4.2
Exercise Equipment, Walking Path.....	4.2
Fence, Steel	4.3
Fences, Wood, Perimeter	4.5
Pavilions	4.7
Irrigation System.....	4.8
Light Poles and Fixtures, Amenity Area.....	4.8
Playground Equipment	4.9
Pond, Erosion Control	4.10
Signage, Entrance Monuments	4.12
Site Furniture	4.13
Pool Elements.....	4.14
Concrete Deck.....	4.14
Fence, Aluminum.....	4.15
Mechanical Equipment	4.15
Pool Finishes, Plaster and Tile	4.16
Reserve Study Update.....	4.17
5. METHODOLOGY	5.1
6. CREDENTIALS	6.1
7. DEFINITIONS	7.1
8. PROFESSIONAL SERVICE CONDITIONS	8.1

1. RESERVE STUDY EXECUTIVE SUMMARY

Client: Autumn Lake Property Owners Association (Autumn Lake)

Location: Pearland, Texas

Reference: 171964

Property Basics: Autumn Lake Property Owners Association is a homeowners association which is responsible for the common elements shared by 413 single family homes. The development was built in 2006.

Reserve Components Identified: 20 Reserve Components.

Inspection Date: December 5, 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 2019 due to partial replacement of the steel fence and replacement of the pool plaster finish and tiles, replacement of the wood perimeter fences in 2026 and replacement of the wood perimeter fences in 2046.

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
- 1.2% annual rate of return on invested reserves
- 2.4% 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:

- \$26,330 as of October 31, 2017
- 2018 budgeted Reserve Contributions of \$14,100
- A potential deficit in reserves might occur by 2019 based upon continuation of the most recent annual reserve contribution of \$14,100 and the identified Reserve Expenditures.

Project Prioritization: We recommend the Association prioritize the following projects in the next five years based on the conditions identified:

- Replacement of steel fence
- Replacement of pool plaster finish and tiles
- Replacement of docks and bulkheads

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

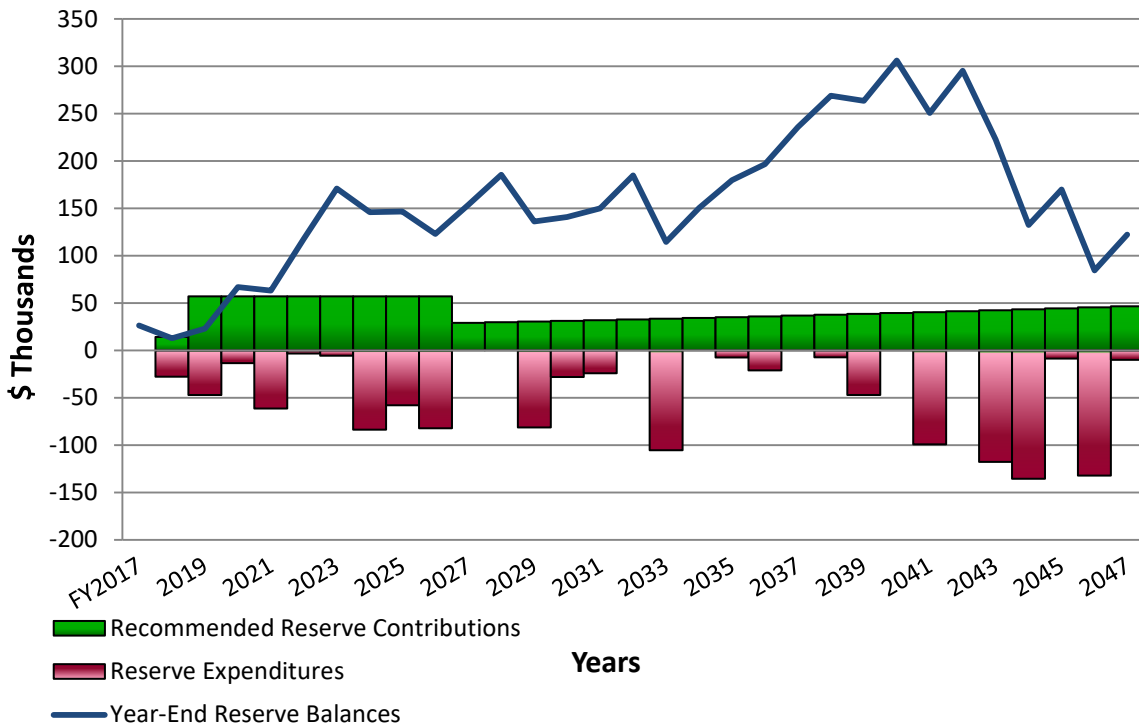
- 2018 budgeted Reserve Contributions of \$14,100
- Stable contributions of \$44,000 from 2019 through 2026
- Decrease to \$33,000 by 2027 due to fully funding for replacement of the perimeter fences
- Inflationary increases through 2047, the limit of this study's Cash Flow Analysis



- Initial recommended adjustment in Reserve Contributions of \$29,900 represents an average monthly increase of \$6.03 per homeowner and about a nineteen percent (19.0%) adjustment in the 2018 total Operating Budget of \$157,440.

Autumn Lake Recommended Reserve Funding Table and Graph

Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2018	14,100	12,864	2028	33,800	81,870	2038	42,800	201,936
2019	44,000	9,824	2029	34,600	35,730	2039	43,800	200,976
2020	44,000	40,596	2030	35,400	43,427	2040	44,900	248,557
2021	44,000	23,515	2031	36,200	55,996	2041	46,000	197,923
2022	44,000	64,663	2032	37,100	93,991	2042	47,100	247,681
2023	44,000	103,985	2033	38,000	27,194	2043	48,200	180,605
2024	44,000	65,196	2034	38,900	66,654	2044	49,400	96,009
2025	44,000	51,866	2035	39,800	99,892	2045	50,600	139,309
2026	44,000	13,935	2036	40,800	120,823	2046	51,800	60,010
2027	33,000	47,300	2037	41,800	164,324	2047	53,000	103,945



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

Autumn Lake Property Owners Association

Pearland, Texas

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, December 5, 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
- **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 Management. These classes of property include:

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

- Autumn Lake 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 reserve funding at this time.

- Electrical Systems, Common
- Pipes, Subsurface Utilities
- Structural Frames

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 \$2,000 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Exercise Equipment, Walking Path, Paint Finishes and Interim Repairs
- Fence, Aluminum, Walking Path
- Fences, Wood, Interim Replacements
- Landscape
- Pavilions, Wood, Paint Finishes and Interim Replacements
- Playground Equipment, Paint Finishes
- Pool Furniture
- Pool House, Exterior Renovations
- Pool House, Interior Renovations
- Security System, Cameras
- Walking Path, Maintenance
- Other Repairs normally funded through the Operating Budget

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 unit:

- Fences, Lot Lines
- Homes
- Lots and Improvements
- Shorelines

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

- Catch Basins (City of Pearland)
- Light Poles and Fixtures (City of Pearland)
- Sidewalks (City of Pearland)
- Streets (City of Pearland)

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
- 2017 local cost of replacement
 - Per unit
 - Per phase
 - Replacement of total quantity
- Total future costs of replacement 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

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

**Autumn Lake
Property Owners Association**
Pearland, Texas

Explanatory Notes:

- 1) **2.4%** is the estimated future Inflation Rate for estimating Future Replacement Costs.
- 2) FY2017 is Fiscal Year beginning January 1, 2017 and ending December 31, 2017.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$				RUL = 0 FY2017	1 2018	2 2019	3 2020	4 2021	5 2022	6 2023	7 2024	8 2025	9 2026	10 2027	11 2028	12 2029	13 2030	14 2031	15 2032	
						Useful	Remaining	Unit (2017)	Per Phase (2017)	Total (2017)	30-Year Total (Inflated)																	
Property Site Elements																												
4.010	70	70	Linear Feet	Bulkheads, Timber	2021	to 20	4	150.00	10,500	10,500	30,097					11,545												
4.011	800	800	Square Feet	Docks, Floating	2021	to 20	4	41.00	32,800	32,800	94,017				36,064													
4.013	1	1	Allowance	Exercise Equipment, Walking Path	2030	to 25	13	15,000.00	15,000	15,000	20,417														20,417			
4.240	640	640	Linear Feet	Fence, Steel, Paint Finishes	2024	6 to 8	7	7.00	4,480	4,480	27,608							5,289									6,244	
4.245	640	320	Linear Feet	Fence, Steel, Phased	2018	to 35	1 to 2	85.00	27,200	54,400	56,374		27,853	28,521														
4.270	1,900	1,900	Linear Feet	Fences, Wood, Perimeter, Miller Ranch Road	2033	15 to 20	16	38.00	72,200	72,200	105,520																	
4.280	3,500	3,500	Linear Feet	Fences, Wood, Perimeter, Remaining, Paint Finishes	2031	4 to 6	14	3.00	10,500	10,500	49,664																14,635	
4.285	3,500	1,750	Linear Feet	Fences, Wood, Perimeter, Remaining, Phased	2024	15 to 20	7 to 9	38.00	66,500	133,000	419,280							78,509		82,323								
4.360	2	2	Each	Pavilions	2029	to 25	12	16,000.00	32,000	32,000	42,535														42,535			
4.420	5,000	5,000	Square Feet	Irrigation System	2044	to 40	27	1.00	5,000	5,000	9,486																	
4.560	6	6	Each	Light Poles and Fixtures, Amenity Area	2020	to 25	3	2,100.00	12,600	12,600	36,873				13,529													
4.660	1	1	Allowance	Playground Equipment	2025	15 to 20	8	48,000.00	48,000	48,000	146,956									58,028								
4.710	580	145	Linear Feet	Pond, Erosion Control, Partial	2023	to 15	6	34.00	4,930	19,720	23,282							5,684										
4.800	3	3	Each	Signage, Entrance Monuments	2021	15 to 20	4	3,400.00	10,200	10,200	28,402					11,215												
4.820	1	1	Allowance	Site Furniture	2030	15 to 25	13	5,700.00	5,700	5,700	7,758															7,758		
Pool Elements																												
6.200	960	960	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs	2021	8 to 12	4	2.50	2,400	2,400	10,224					2,639											3,345	
6.400	260	260	Linear Feet	Fence, Aluminum	2029	to 25	12	49.00	12,740	12,740	16,934															16,934		
6.600	2	1	Allowance	Mechanical Equipment, Phased	2022	to 15	5 to 12	3,000.00	3,000	6,000	17,632						3,378								3,988			
6.800	820	820	Square Feet	Pool Finish, Plaster	2019	8 to 12	2	16.50	13,530	13,530	54,969			14,187												17,984		
6.801	120	120	Linear Feet	Pool Finish, Tile	2019	15 to 25	2	35.50	4,260	4,260	11,645			4,467														
Anticipated Expenditures, By Year											\$1,209,673	0	27,853	47,175	13,529	61,463	3,378	5,684	83,798	58,028	82,323	0	0	81,441	28,175	24,224	0	

RESERVE EXPENDITURES

**Autumn Lake
Property Owners Association
Pearland, Texas**

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$				16 2033	17 2034	18 2035	19 2036	20 2037	21 2038	22 2039	23 2040	24 2041	25 2042	26 2043	27 2044	28 2045	29 2046	30 2047
						Useful	Remaining	Unit (2017)	Per Phase (2017)	Total (2017)	30-Year Total (Inflated)															
Property Site Elements																										
4.010	70	70	Linear Feet	Bulkheads, Timber	2021	to 20	4	150.00	10,500	10,500	30,097															18,552
4.011	800	800	Square Feet	Docks, Floating	2021	to 20	4	41.00	32,800	32,800	94,017															57,953
4.013	1	1	Allowance	Exercise Equipment, Walking Path	2030	to 25	13	15,000.00	15,000	15,000	20,417															
4.240	640	640	Linear Feet	Fence, Steel, Paint Finishes	2024	6 to 8	7	7.00	4,480	4,480	27,608					7,372									8,703	
4.245	640	320	Linear Feet	Fence, Steel, Phased	2018	to 35	1 to 2	85.00	27,200	54,400	56,374															
4.270	1,900	1,900	Linear Feet	Fences, Wood, Perimeter, Miller Ranch Road	2033	15 to 20	16	38.00	72,200	72,200	105,520	105,520														
4.280	3,500	3,500	Linear Feet	Fences, Wood, Perimeter, Remaining, Paint Finishes	2031	4 to 6	14	3.00	10,500	10,500	49,664				16,477											18,552
4.285	3,500	1,750	Linear Feet	Fences, Wood, Perimeter, Remaining, Phased	2024	15 to 20	7 to 9	38.00	66,500	133,000	419,280														126,160	132,288
4.360	2	2	Each	Pavilions	2029	to 25	12	16,000.00	32,000	32,000	42,535															
4.420	5,000	5,000	Square Feet	Irrigation System	2044	to 40	27	1.00	5,000	5,000	9,486														9,486	
4.560	6	6	Each	Light Poles and Fixtures, Amenity Area	2020	to 25	3	2,100.00	12,600	12,600	36,873														23,344	
4.660	1	1	Allowance	Playground Equipment	2025	15 to 20	8	48,000.00	48,000	48,000	146,956															88,928
4.710	580	145	Linear Feet	Pond, Erosion Control, Partial	2023	to 15	6	34.00	4,930	19,720	23,282			7,555												10,043
4.800	3	3	Each	Signage, Entrance Monuments	2021	15 to 20	4	3,400.00	10,200	10,200	28,402						17,187									
4.820	1	1	Allowance	Site Furniture	2030	15 to 25	13	5,700.00	5,700	5,700	7,758															
Pool Elements																										
6.200	960	960	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs	2021	8 to 12	4	2.50	2,400	2,400	10,224															4,240
6.400	260	260	Linear Feet	Fence, Aluminum	2029	to 25	12	49.00	12,740	12,740	16,934															
6.600	2	1	Allowance	Mechanical Equipment, Phased	2022	to 15	5 to 12	3,000.00	3,000	6,000	17,632				4,708											5,558
6.800	820	820	Square Feet	Pool Finish, Plaster	2019	8 to 12	2	16.50	13,530	13,530	54,969						22,798									
6.801	120	120	Linear Feet	Pool Finish, Tile	2019	15 to 25	2	35.50	4,260	4,260	11,645						7,178									
Anticipated Expenditures, By Year											\$1,209,673	105,520	0	7,555	21,185	0	7,372	47,163	0	99,297	0	117,830	135,646	8,703	132,288	10,043

RESERVE FUNDING PLAN

CASH FLOW ANALYSIS

Autumn Lake

Property Owners Association

Pearland, Texas

Individual Reserve Budgets & Cash Flows for the Next 30 Years

	FY2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Reserves at Beginning of Year (Note 1)	26,330	26,383	12,864	9,824	40,596	23,515	64,663	103,985	65,196	51,866	13,935	47,300	81,870	35,730	43,427	55,996
Total Recommended Reserve Contributions (Note 2)	0	14,100	44,000	44,000	44,000	44,000	44,000	44,000	44,000	44,000	33,000	33,800	34,600	35,400	36,200	37,100
Plus Estimated Interest Earned, During Year (Note 3)	53	234	135	301	382	526	1,006	1,009	698	392	365	770	701	472	593	895
Less Anticipated Expenditures, By Year	0	(27,853)	(47,175)	(13,529)	(61,463)	(3,378)	(5,684)	(83,798)	(58,028)	(82,323)	0	0	(81,441)	(28,175)	(24,224)	0
Anticipated Reserves at Year End	<u>\$26,383</u>	<u>\$12,864</u>	<u>\$9,824</u>	<u>\$40,596</u>	<u>\$23,515</u>	<u>\$64,663</u>	<u>\$103,985</u>	<u>\$65,196</u>	<u>\$51,866</u>	<u>\$13,935</u>	<u>\$47,300</u>	<u>\$81,870</u>	<u>\$35,730</u>	<u>\$43,427</u>	<u>\$55,996</u>	<u>\$93,991</u>
Predicted Reserves based on 2018 funding level of: \$14,100	26,383	12,864	(20,255)	(19,924)						(NOTE 5)						

(continued)

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

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
Reserves at Beginning of Year	93,991	27,194	66,654	99,892	120,823	164,324	201,936	200,976	248,557	197,923	247,681	180,605	96,009	139,309	60,010
Total Recommended Reserve Contributions	38,000	38,900	39,800	40,800	41,800	42,800	43,800	44,900	46,000	47,100	48,200	49,400	50,600	51,800	53,000
Plus Estimated Interest Earned, During Year	723	560	993	1,316	1,701	2,184	2,403	2,681	2,663	2,658	2,554	1,650	1,403	1,189	978
Less Anticipated Expenditures, By Year	(105,520)	0	(7,555)	(21,185)	0	(7,372)	(47,163)	0	(99,297)	0	(117,830)	(135,646)	(8,703)	(132,288)	(10,043)
Anticipated Reserves at Year End	<u>\$27,194</u>	<u>\$66,654</u>	<u>\$99,892</u>	<u>\$120,823</u>	<u>\$164,324</u>	<u>\$201,936</u>	<u>\$200,976</u>	<u>\$248,557</u>	<u>\$197,923</u>	<u>\$247,681</u>	<u>\$180,605</u>	<u>\$96,009</u>	<u>\$139,309</u>	<u>\$60,010</u>	<u>\$103,945</u>
														(NOTE 5)	(NOTE 4)

Explanatory Notes:

- 1) Year 2017 starting reserves are as of October 31, 2017; FY2017 starts January 1, 2017 and ends December 31, 2017.
- 2) Reserve Contributions for 2017 are the remaining budgeted 2 months; 2018 is budgeted; 2019 is the first year of recommended contributions.
- 3) 1.2% is the estimated annual rate of return on invested reserves; 2017 is a partial year of interest earned.
- 4) Accumulated year 2047 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.*

Property Site Elements

Bulkheads, Timber

Line Item: 4.010

Quantity: Approximately 70 linear feet

History: Original

Conditions: Good to fair overall



Shoreline erosion by bulkhead



Erosion behind retaining wall

Useful Life: Up to 20 years

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.

Docks, Wood, Floating

Line Item: 8.500

Quantity: Approximately 800 square feet of floating wood docks

History: Replaced in 2008

Condition: Good to fair overall condition



Floating docks overview

Useful Life: Up to 20 years

Component Detail Notes: These floating docks utilize encapsulated polystyrene billets (floatation devices) and wood decks. The docks automatically adjust to fluctuations in water levels.

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 estimate of cost includes an allowance for removal and disposal of the existing docks, and installation of new docks.

Exercise Equipment, Walking Path

Line Item: 4.013

History: Original

Condition: Good overall with isolated finish deterioration



Exercise equipment overview



Exercise equipment overview



Exercise equipment overview



Finish deterioration

Useful Life: Up to 25 years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend the Association budget for interim repairs and paint finishes through the operating budget.

Fence, Steel

Line Items: 4.240 and 4.245

Quantity: Approximately 640 linear feet

History: Original

Condition: Fair overall condition with finish deterioration, rust and leaning sections evident.



Leaning section



Leaning section



Finish deterioration and rust



Rusted and deteriorated rails

Useful Life: Six- to eight-years for paint finishes and up to 35 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. Our cost is based on information provided by the Management. Management informs us the Association anticipates near term replacement. We recommend the Association plan to replace the steel fence in a phased manner beginning by 2018 and concluding by 2019.

Fences, Wood, Perimeter

Line Items: 4.270, 4.280 and 4.285

Quantity: Approximately 1,900 linear feet of wood perimeter fence along Miller Ranch Road and 3,500 linear feet of wood perimeter fence around the community.

History: Management informs us a portion of the fence along Miller Ranch Road was replaced in 2015. The remaining fences are original.

Condition:

- The fence along Miller Ranch Road is in good overall condition with isolated wood rot and deterioration evident.
- The remaining fences are in good to fair overall condition with isolated damage, loose pickets, finish deterioration, deflection and missing pickets evident.



Damage



Finish deterioration and damage



Damaged picket



Missing picket



Loose and deflected pickets



Pickets detached from base



Overview of fence by Miller Ranch Road



Wood deterioration at Miller Ranch Road



Wood rot at Miller Ranch Road

Useful Life: Four- to six-years for paint finishes and 15- to 20-years for replacement

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. The Association should anticipate periodic partial replacements due to the non-uniform nature of wood deterioration.

Pavilions

Line Item: 4.360

Quantity: Two each

History: The pavilions are original. Management informs us the Association recently replaced the light fixtures at the pavilions.

Condition: Good overall



Pavilion overview

Useful Life: Up to 25 years with periodic maintenance

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend the Association budget for paint applications and repairs through the operating budget. Our cost for renovation includes:

- Replacement of the metal roof
- Replacement of the wood deck and railings
- Replacement of benches, trash receptacles and light fixtures

Irrigation System

Line Item: 4.420

Quantity: Approximately 5,000 square feet by the three property signs

History: Original

Condition: Good overall

Useful Life: Up to 40 years

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

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

Autumn Lake 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.

Light Poles and Fixtures, Amenity Area

Line Item: 4.560

Quantity: The Association maintains six light poles and fixtures along the walking path

History: Original

Condition: Good to fair overall



Typical light pole and fixtures



Damaged fixture

Useful Life: Up to 25 years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Management informs us the Association plans to replace the light poles and fixtures in the near term.

Playground Equipment

Line Item: 4.660

History: Original

Condition: Good overall



Playground equipment

Useful Life: 15- to 20-years

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

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We include an allowance in the unit cost for replacement of the safety surface.

Pond, Erosion Control

Line Item: 4.710

Quantity: The Association is responsible for approximately 580 linear feet of shoreline

Condition: Isolated shoreline erosion evident



Pond overview



Minor shoreline erosion



Minor erosion

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

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

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

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

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend the Association plan to install a combination of plantings and rip rap around the pond along 145 linear feet, or approximately twenty-five percent (25%), of the shoreline that the Association is responsible for.

Signage, Entrance Monuments

Line Item: 4.800

Quantity: The Association maintains three property signs at the entrances. Management informs us the Association plans to install a fourth entrance sign in the near term. This addition will be funded through the operating budget.

History: Original

Condition: Good overall with damaged light fixtures and efflorescent evident



Property entrance sign



Property entrance sign



Damaged light fixture



Efflorescence

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. Our cost for renovation includes repointing and repairs to the masonry and replacement of the remaining components.

Site Furniture

Line Item: 4.820

History: Original

Condition: Good overall



Benches

Useful Life: 15- to 25-years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend the Association plan to replace site furniture in conjunction with the exercise equipment.

Pool Elements

Concrete Deck

Line Item: 6.200

Quantity: 960 square feet

History: Original

Condition: Good to fair overall with cracks and sealant deterioration evident.



Concrete deck cracks



Sealant deterioration between pool coping and deck

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

Component Detail Notes: We recommend the Association budget for the following:

- Selective cut out and replacements of up to ten percent (10%) of concrete
- Crack repairs as needed
- Mortar joint repairs
- Caulk replacement

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.

Fence, Aluminum

Line Item: 6.400

Quantity: Approximately 260 linear feet

History: Original

Condition: Good overall condition

Useful Life: Up to 25 years

Priority/Criticality: Not recommended to defer

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

Mechanical Equipment

Line Item: 6.600

Quantity:

- Automatic chlorinator
- Filter
- Interconnected pipe, fittings and valves
- Pump

History: Original

Condition: Reported satisfactory



Pool mechanical equipment

Useful Life: Up to 15 years

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Failure of the pool mechanical equipment as a single event is unlikely. We recommend the Association plan for a phased replacement of the mechanical equipment over a seven year period beginning by 2022 and concluding by 2029. We consider interim replacement of motors and minor repairs as normal maintenance.

Pool Finishes, Plaster and Tile

Line Items: 6.800 and 6.801

Quantity: 820 square feet of plaster based on the horizontal surface area and approximately 120 linear feet of tile

History: The plaster finish and the tile are original

Condition: Good overall with plaster finish deterioration and efflorescence on tiles evident



Plaster finish deterioration



Efflorescence

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

Component Detail Notes: Removal and replacement provides the opportunity to inspect the pool structures and to allow for partial repairs of the underlying concrete surfaces as needed. To maintain the integrity of the pool structures, we recommend the Association budget for the following:

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

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 to replace the plaster finish is based on information provided by the Management. Management informs us the Association plans to replace the plaster finish by the end of 2017 or early 2018. We recommend the Association plan to replace the plaster finish by 2019 due to insufficient funds. We recommend the Association budget for full tile replacement every other plaster replacement event.

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 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.

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

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

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

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

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

- The past and current maintenance practices of Autumn Lake 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, Inc. 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.

QUALIFICATIONS

THEODORE J. SALGADO

Principal Owner

CURRENT CLIENT SERVICES

Theodore J. Salgado is a co-founder of Reserve Advisors, Inc., which is dedicated to serving community associations, city and country clubs, religious organizations, educational facilities, and public and private entities throughout the United States. He is responsible for the production, management, review, and quality assurance of all reserve studies, property inspection services and consulting services for a nationwide portfolio of more than 6,000 clients. Under his direction, the firm conducts reserve study services for community associations, apartment complexes, churches, hotels, resorts, office towers and vintage architecturally ornate buildings.



PRIOR RELEVANT EXPERIENCE

Before founding Reserve Advisors, Inc. with John P. Poehlmann in 1991, Mr. Salgado, a professional engineer registered in the State of Wisconsin, served clients for over 15 years through American Appraisal Associates, the world's largest full service valuation firm. Mr. Salgado conducted facilities analyses of hospitals, steel mills and various other large manufacturing and petrochemical facilities and casinos.

He has served clients throughout the United States and in foreign countries, and frequently acted as project manager on complex valuation, and federal and state tax planning assignments. His valuation studies led to negotiated settlements on property tax disputes between municipalities and property owners.

Mr. Salgado has authored articles on the topic of reserve studies and facilities maintenance. He also co-authored *Reserves*, an educational videotape produced by Reserve Advisors on the subject of Reserve Studies and maintaining appropriate reserves. Mr. Salgado has also written in-house computer applications manuals and taught techniques relating to valuation studies.

EXPERT WITNESS

Mr. Salgado has testified successfully before the Butler County Board of Tax Revisions in Ohio. His depositions in pretrial discovery proceedings relating to reserve studies of Crestview Estates Condominium Association in Wauconda, Illinois, Rivers Point Row Property Owners Association, Inc. in Charleston, South Carolina and the North Shore Club Associations in South Bend, Indiana have successfully assisted the parties in arriving at out of court settlements.

EDUCATION - Milwaukee School of Engineering - B.S. Architectural Engineering

PROFESSIONAL AFFILIATIONS/DESIGNATIONS

American Association of Cost Engineers - Past President, Wisconsin Section

Association of Construction Inspectors - Certified Construction Inspector

Association of Professional Reserve Analysts - Past President & Professional Reserve Analyst (PRA)

Community Associations Institute - Member and Volunteer Leader of multiple chapters

Concordia Seminary, St. Louis - Member, National Steering Committee

Milwaukee School of Engineering - Member, Corporation Board

Professional Engineer, Wisconsin (1982) and North Carolina (2014)

Ted continually maintains his professional skills through American Society of Civil Engineers, ASHRAE, Association of Construction Inspectors, and continuing education to maintain his professional engineer licenses.

JOHN P. POEHLMANN, RS
Principal

John P. Poehlmann is a co-founder of Reserve Advisors, Inc. He is responsible for the finance, accounting, marketing, and overall administration of Reserve Advisors, Inc. He also regularly participates in internal Quality Control Team Reviews of Reserve Study reports.



Mr. Poehlmann directs corporate marketing, including business development, advertising, press releases, conference and trade show exhibiting, and electronic marketing campaigns. He frequently speaks throughout the country at seminars and workshops on the benefits of future planning and budgeting for capital repairs and replacements of building components and other assets.

PRIOR RELEVANT EXPERIENCE

Mr. Poehlmann served on the national Board of Trustees of Community Associations Institute. An international organization, Community Associations Institute (CAI) is a nonprofit 501(c)(3) trade association created in 1973 to provide education and resources to America's 335,000 residential condominium, cooperative and homeowner associations and related professionals and service providers.

He is a founding member of the Institute's Reserve Committee. The Reserve Committee developed national standards and the Reserve Specialist (RS) Designation Program for Reserve Study providers. Mr. Poehlmann has authored numerous articles on the topic of Reserve Studies, including Reserve Studies for the First Time Buyer, Minimizing Board Liability, Sound Association Planning Parallels Business Concepts, and Why Have a Professional Reserve Study. He is also a contributing author in Condo/HOA Primer, a book published for the purpose of sharing a wide background of industry knowledge to help boards in making informed decisions about their communities.

INDUSTRY SERVICE AWARDS

- CAI Wisconsin Chapter Award
- CAI National Rising Star Award
- CAI Michigan Chapter Award

EDUCATION

- University of Wisconsin-Milwaukee - Master of Science Management
- University of Wisconsin - Bachelor of Business Administration

PROFESSIONAL AFFILIATIONS

- Community Associations Institute (CAI)** - Founding member of Reserve Committee; former member of National Board of Trustees; Reserve Specialist (RS) designation; Member of multiple chapters
- Association of Condominium, Townhouse, & Homeowners Associations (ACTHA)** – member



ANDREW L. STOUTENBURG, PE, RS
Southeast Regional Engineering Manager

CURRENT CLIENT SERVICES

Andrew L. Stoutenburg, a Civil Engineer, is an Advisor for Reserve Advisors. Mr. Stoutenburg is responsible for the inspection and analysis of the condition of clients' properties, 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 Analyses and Capital Replacement Forecast services and the preparation of Reserve Study Reports for apartments, condominiums, townhomes and homeowner associations.

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

Indigo Condominium Association, Inc. Twin 21-story towers located on waterfront property in Pensacola, Florida, comprise a total of 177 units. The towers were built from 2005 through 2006, and include an elaborate resort style pool area, elevated plaza decks, garage structures and multiple interior amenity areas. The Association also owns a parcel of land across Perdido Key Drive that provides additional parking and tennis facilities.

Ocean Three Condominium Association, Inc. Ocean Three Condominium comprises a uniquely shaped 37-story building of 215 units. Residents of the Association have access to a tennis court, pool and plaza deck, and multiple interior common areas including a spa, restaurant and fitness center. The site also includes an integral garage located at the lower levels of the tower.

The Polo Club of Boca Raton Property Owners Association, Inc. The Polo Club of Boca Raton is located on 1,100 acres in Palm Beach County, Florida. The Club comprises two Championship Golf Courses, a nationally recognized tennis facility with 27 *Har-Tru* courts, a 35,000 square foot Spa and Fitness Center, main clubhouse comprising approximately 120,000 square feet and resort style pool area including locker rooms, outdoor dining and children's activity center. The main clubhouse comprises five distinct restaurants, a ballroom, lounge and outdoor snack shop and two large commercial kitchens.

Camp For All Foundation Camp For All Foundation comprises over 200 acres in Burton, Texas. Camp for all includes 18 cabins, numerous multipurpose use structures, extensive site infrastructure, maintenance buildings and equipment, animal storage structures and a packaged sewer treatment facility.

Esentai Tower Located in Almaty, Kazakhstan, Esentai Tower comprises a total of 38 floors in one tower. The tower includes Class "A" office space, a *Ritz-Carlton* hotel, and private residences at the top eight floors. The tower includes an extensive subterranean parking garage, curtain wall facade, flat roof systems, and numerous building service elements, including boilers, chillers, cooling towers, traction elevators, life safety systems, building automation and security systems.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Mr. Stoutenburg successfully completed the bachelors program in Civil Engineer from the University of Central Florida. He also has two years of experience as a field engineer in Tampa, FL and Miami, FL, where he gained knowledge in heavy highway construction, including but not limited to the construction of drainage, roadways, concrete structures and bridges.

EDUCATION

University of Central Florida – B.S. Civil Engineering

PROFESSIONAL AFFILIATIONS

Professional Engineer (PE) – State of Florida

Reserve Specialist (RS) - CAI



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

Reserve Specialist (RS) - Community Associations Institute

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

RESOURCES

Reserve Advisors, Inc. 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. Several advisors and a Principal of Reserve Advisors, Inc. hold Senior Memberships with ACI.

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, Inc. 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, Inc., 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 Autumn Lake 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) Autumn Lake 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, Inc. (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.