

FULL RESERVE STUDY

Country Villas Homeowners' Association



Carrollton, Texas

May 4, 2015



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1. RESERVE STUDY EXECUTIVE SUMMARY

Client: Country Villas Homeowners' Association (Country Villas)

Location: Carrollton, Texas

Reference: 150379

Property Basics: Country Villas Homeowners' Association is a homeowners association which is responsible for the common elements shared by 180 units. The buildings were built from 1979 to 1983. The development contains a clubhouse and pool.

Reserve Components Identified: 23 Reserve Components.

Inspection Date: May 4, 2015.

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 multiple threshold funding years in 2016, 2022 and 2039 due to partial replacement of the timber retaining walls, capital repairs to the masonry retaining walls, replacement of the tennis court and replacement of the pool structure and deck.

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
- 1.1% annual rate of return on invested reserves
- 2.6% 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: \$34,127 as of February 28, 2015.

Recommended Reserve Funding: The Association did not budget Reserve Contributions in 2015.¹ We recommend the Association budget annual phased increases in Reserve Contributions of \$25,000 from 2016 through 2018. We recommend the Association budget stable contributions of \$75,000 from 2019 through 2022. By 2023, the Association will have fully funded for replacement of the tennis court fence and surface. Therefore, the Association may anticipate a decrease in the annual Reserve Contribution to \$53,000. Afterwards, the Association should budget gradual annual increases in reserve funding, that in part consider the effects of inflation through 2045, the limit of this Cash Flow Analysis. The initial adjustment in Reserve Contributions of \$25,000 represents about a ten percent (10.2%) adjustment in the 2015 total Operating Budget of \$245,128. This initial adjustment of \$25,000 is equivalent to an average monthly increase of \$11.57 per homeowner. The Association may ascribe the actual contributions and assessments per unit owner based upon percent ownership, as defined by the Association's governing documents.

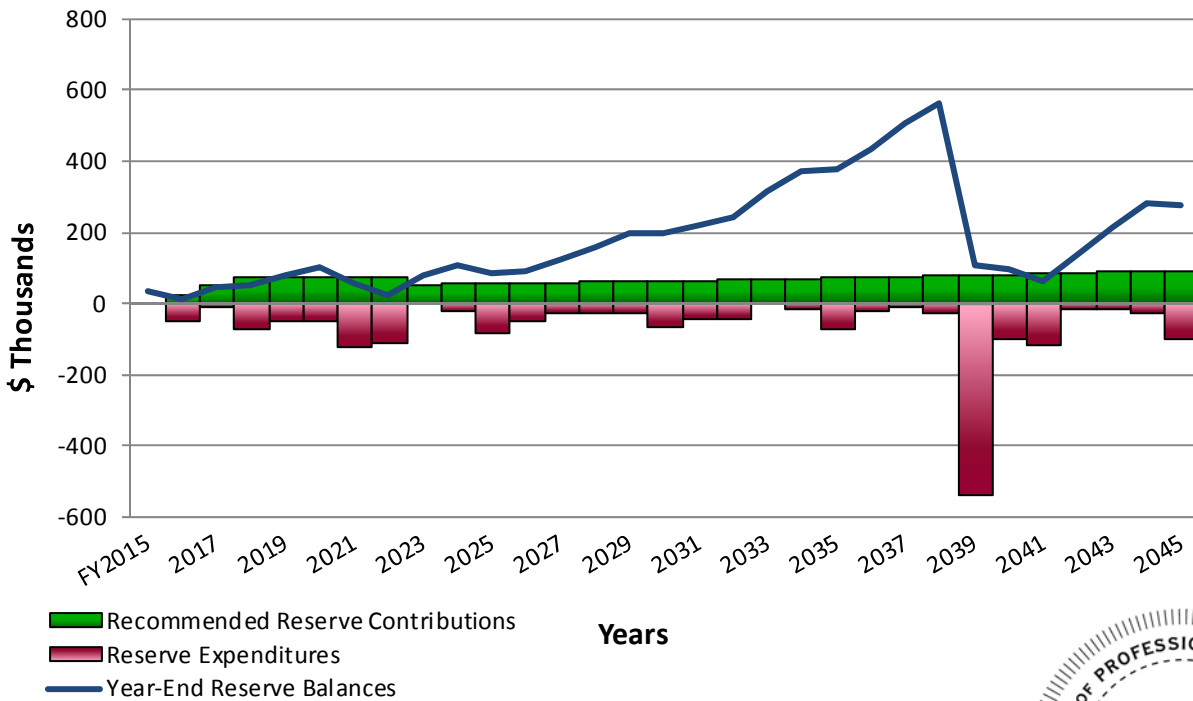
¹ The Fiscal Year (FY 2015) for Country Villas begins July 1, 2014 and ends June 31, 2015. For brevity, we refer to the Fiscal Year by its ending year, i.e. Fiscal Year 2014-2015 is FY 2015 or simply 2015.



Certification: This *Full Reserve Study* exceeds the Community Associations Institute (CAI) and the Association of Professional Reserve Analysts (APRA) standards fulfilling the requirements of a “Level I Full Reserve Study.”

Country Villas
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2016	25,000	9,407	2026	57,300	92,627	2036	74,100	435,101
2017	50,000	47,105	2027	58,800	122,560	2037	76,000	503,571
2018	75,000	50,165	2028	60,300	159,482	2038	78,000	561,953
2019	75,000	76,658	2029	61,900	195,823	2039	80,000	109,601
2020	75,000	102,614	2030	63,500	196,807	2040	82,100	93,553
2021	75,000	56,743	2031	65,200	221,698	2041	84,200	64,106
2022	75,000	23,173	2032	66,900	244,893	2042	86,400	137,209
2023	53,000	76,719	2033	68,600	316,564	2043	88,600	213,365
2024	54,400	109,839	2034	70,400	372,821	2044	90,900	279,172
2025	55,800	83,061	2035	72,200	375,596	2045	93,300	275,071



Respectfully submitted on July 10, 2015 by
RESERVE ADVISORS, INC.



Alan M. Ebert, PRA¹, RS², Associate Director of Quality Assurance
Visual Inspection and Report by: Andrew Stoutenburg, RS, and Graham W. Culkar
Reviewed by: Nicole L. Lowery, PRA, RS, Associate Director of Quality Assurance



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.

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

Country Villas Homeowners' Association

Carrollton, Texas

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, May 4, 2015.

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
- **Condition Assessment** - Describes the reserve components, describes our recommendations for repairs or replacement, and includes detailed solutions and procedures for replacements for the benefit of current and future board members
- **Photographs** - Documentation of Condition of various property elements
- **Methodology** - Lists the national standards, methods and procedures used, financial information relied upon for the Financial Analysis of 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

Country Villas Homeowners' Association is a homeowners association which is responsible for the common elements shared by 180 units. The buildings were built from 1979 to 1983. The development contains a clubhouse and pool. We identify 23 major reserve components that are likely to require capital repair or replacement during the next 30 years.

Our investigation includes Reserve Components or property elements as set forth in your Declaration. Our analysis begins by segregating the property elements into several areas of responsibility for repair and replacement. Our process of identification helps assure that future boards and the management team understand whether reserves, the operating budget or Homeowners fund certain replacements and assists in preparation of the annual budget. We derive these segregated classes of property from our review of the information provided by the Association and through conversations with the Board. These classes of property include:

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

We advise the Board conduct an annual review of these classes of property to confirm its policy concerning the manner of funding, i.e., from reserves or the operating budget.

The Reserve Study identifies Reserve Components as set forth in your Declaration or which were identified as part of your request for proposed services. Reserve Components are defined by CAI as property elements with:

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

Long-Lived Property Elements do not have predictable Remaining Useful Lives. 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, Clubhouse
- Foundation, Clubhouse
- Pipes, Interior Building, Water and Sewer, Clubhouse
- Structural Frame, Clubhouse
- Walls, Fiber Cement Siding, Clubhouse (2013)

The operating budget provides money for the repair and replacement of certain Reserve Components. Operating Budget Funded Repairs and Replacements relate to:

- General Maintenance to the Common Elements
- Expenditures less than \$2,000 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Concrete Parking Lot, Clubhouse
- Landscape
- Irrigation System, Controllers
- Paint Finishes, Building Exteriors
- Paint Finishes, Touch Up
- Saunas, Renovation
- 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:

- Driveways and Aprons
- Homes and Lots (Excluding Paint Finishes)
- Sidewalks, Unit Entrance

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

Property Maintained by Others relates to:

- Concrete Curbs and Gutters (Carrollton City)
- Concrete Drainage Swales (Carrollton City)
- Concrete Streets (Carrollton City)
- Light Poles and Fixtures, Traffic Circles (Utility Company)
- Pipes, Subsurface Utilities (Carrollton City)

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
- Unit cost of replacement
- 2015 local cost of replacement
- Total future costs of replacement anticipated during the next 30 years
- Schedule of estimated future costs for each reserve component including inflation

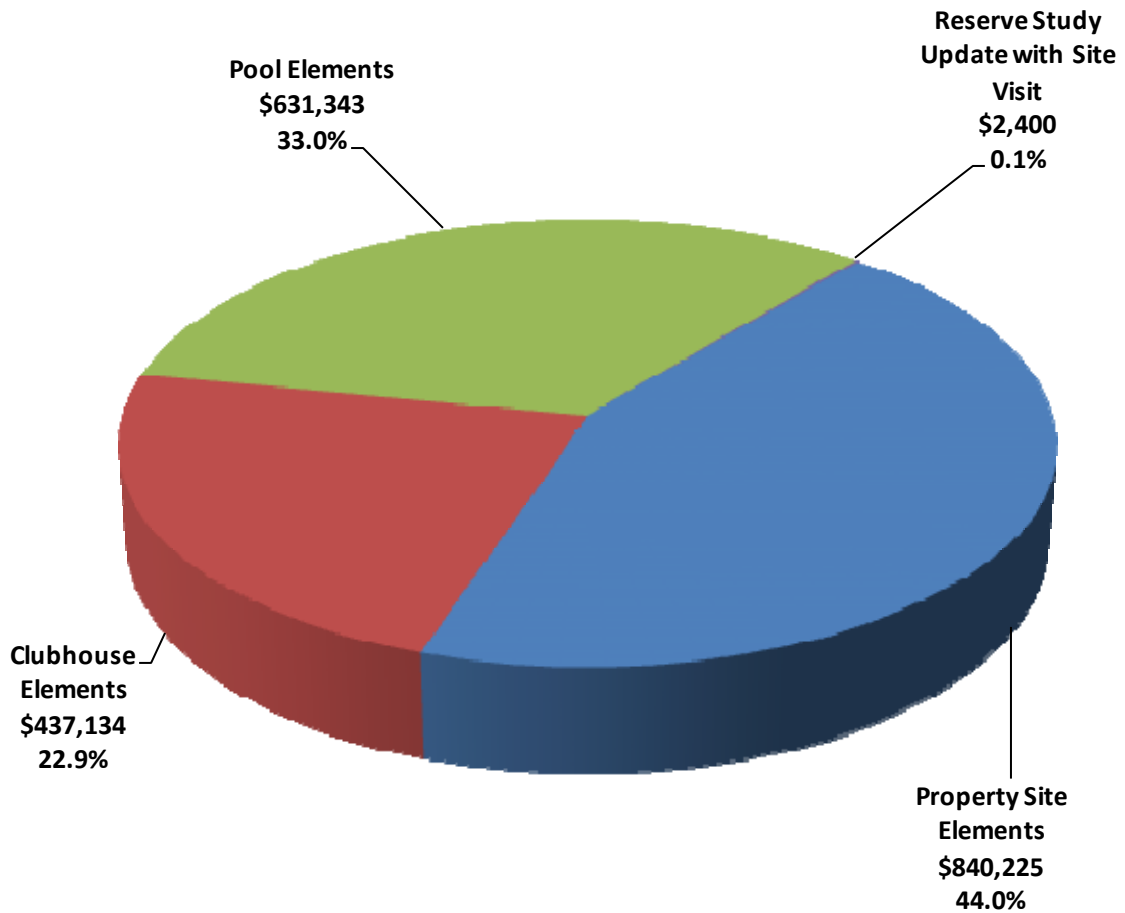
Reserve Funding Plan

- 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

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*.

The following chart illustrates the relative importance of the categories noted in *Reserve Expenditures* and relative funding during the next 30 years.

Country Villas
Future Expenditures Relative Cost Illustration



RESERVE EXPENDITURES

Country Villas
Homeowners' Association
Carrollton, Texas

Explanatory Notes:

- 1) **2.6%** is the estimated future Inflation Rate for estimating Future Replacement Costs.
- 2) FY2015 is Fiscal Year beginning July 1, 2014 and ending June 30, 2015.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$				RUL = 0 FY2015	1 2016	2 2017	3 2018	4 2019	5 2020	6 2021	7 2022	8 2023	9 2024	10 2025	11 2026	12 2027	13 2028	14 2029	15 2030											
						Useful	Remaining	Unit (2015)	Per Phase (2015)	Total (2015)	30-Year Total (Inflated)																											
<u>Property Site Elements</u>																																						
4.140	8,700	1,160	Square Feet	Concrete Sidewalks, Partial	2018	to 65	3 to 30+	10.00	11,600	87,000	49,658																	16,195										
4.420	1	1	Allowance	Irrigation System, Inspections and Capital Repairs	2020	to 5	5	44,000.00	44,000	44,000	423,704						50,025											56,876	64,664									
4.560	10	10	Each	Light Poles and Fixtures	2018	to 25	3	700.00	7,000	7,000	21,922																											
4.740	1,300	1,300	Square Feet	Retaining Wall, Concrete, Inspections and Capital Repairs	2021	10 to 15	6	7.50	9,750	9,750	45,079																		11,373									
4.745	1,850	1,850	Square Feet	Retaining Walls, Masonry, Inspections and Capital Repairs	2016	10 to 15	1	6.00	11,100	11,100	45,139																		14,721									
4.760	2,650	883	Square Feet	Retaining Walls, Timber (Replace with Masonry), Phased	2016	15 to 20	1 to 11	29.00	25,617	76,850	90,139																		33,974									
4.830	7,200	7,200	Square Feet	Tennis Court, Color Coat	2017	4 to 6	2	1.00	7,200	7,200	55,577																		9,797									
4.840	360	360	Linear Feet	Tennis Court, Fence	2022	to 25	7	33.00	11,880	11,880	14,218																		14,218									
4.860	7,200	7,200	Square feet	Tennis Court, Surface Replacement	2022	to 35	7	11.00	79,200	79,200	94,789																		94,789									
<u>Clubhouse Elements</u>																																						
5.160	2	1	Allowance	Exercise Equipment, Phased	2018	5 to 15	3 to 10	20,700.00	20,700	41,400	119,465																			22,357	26,757							
5.310	1	1	Allowance	Exterior Renovation (2016 Incl. Additional Repairs)	2016	8 to 12	1	2,000.00	2,000	2,000	15,413																			6,000	2,520							
5.450	2	2	Each	HVAC Equipment	2018	12 to 18	3	5,500.00	11,000	11,000	29,795																			11,881								
5.500	1	1	Allowance	Interior Renovation, Complete	2021	to 20	6	49,000.00	49,000	49,000	152,663																			57,158								
5.510	1	1	Allowance	Interior Renovation, Partial	2031	to 10	16	16,000.00	16,000	16,000	24,126																											
5.590	2	2	Each	Rest Room Renovation	2021	to 25	6	10,000.00	20,000	20,000	23,330																			23,330								
5.600	40	40	Squares	Roof, Asphalt Shingles	2024	15 to 20	9	330.00	13,200	13,200	44,417																			16,630								
5.800	600	600	Square Feet	Windows and Doors	2019	to 40	4	42.00	25,200	25,200	27,925																			27,925								
<u>Pool Elements</u>																																						
6.200	4,960	4,960	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs	2027	8 to 12	12	3.00	14,880	14,880	20,247																			20,247								
6.400	350	350	Linear Feet	Fence, Metal	2018	to 35	3	48.00	16,800	16,800	18,145																			18,145								
6.500	1	1	Allowance	Furniture	2016	to 12	1	6,250.00	6,250	6,250	27,011																			6,412	8,726							
6.600	2	1	Allowance	Mechanical Equipment, Phased	2017	to 15	2 to 9	2,500.00	2,500	5,000	19,464																			2,632	3,150							
6.800	1,920	1,920	Square Feet	Pool Finish, Plaster	2019	8 to 12	4	10.00	19,200	19,200	48,778																			21,276	27,502							
6.900	1,920	1,920	Square Feet	Structure and Deck, Total Replacement	2039	to 60	24	140.00	268,800	268,800	497,698																											
		1	Allowance	Reserve Study Update with Site Visit	2017	2	2	2,400.00	2,400	2,400	2,400																			2,400								
Anticipated Expenditures, By Year																																						
											\$1,911,102	0	50,084	12,611	72,472	49,201	50,025	121,743	109,007	0	22,300	83,633	48,695	30,044	24,921	27,502	64,664											

RESERVE FUNDING PLAN

CASH FLOW ANALYSIS
Country Villas
Homeowners' Association

Individual Reserve Budgets & Cash Flows for the Next 30 Years

Carrollton, Texas	FY2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Reserves at Beginning of Year (Note 1)	34,127	34,252	9,407	47,105	50,165	76,658	102,614	56,743	23,173	76,719	109,839	83,061	92,627	122,560	159,482	195,823
Total Recommended Reserve Contributions (Note 2)	0	25,000	50,000	75,000	75,000	75,000	75,000	75,000	53,000	54,400	55,800	57,300	58,800	60,300	61,900	63,500
Plus Estimated Interest Earned, During Year (Note 3)	125	239	309	532	694	981	872	437	546	1,020	1,055	961	1,177	1,543	1,943	2,148
Less Anticipated Expenditures, By Year	0	(50,084)	(12,611)	(72,472)	(49,201)	(50,025)	(121,743)	(109,007)	0	(22,300)	(83,633)	(48,695)	(30,044)	(24,921)	(27,502)	(64,664)
Anticipated Reserves at Year End	<u>\$34,252</u>	<u>\$9,407</u>	<u>\$47,105</u>	<u>\$50,165</u>	<u>\$76,658</u>	<u>\$102,614</u>	<u>\$56,743</u>	<u>\$23,173</u>	<u>\$76,719</u>	<u>\$109,839</u>	<u>\$83,061</u>	<u>\$92,627</u>	<u>\$122,560</u>	<u>\$159,482</u>	<u>\$195,823</u>	<u>\$196,807</u>

(NOTE 5)

(NOTE 5)

(continued)

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

	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Reserves at Beginning of Year	196,807	221,698	244,893	316,564	372,821	375,596	435,101	503,571	561,953	109,601	93,553	64,106	137,209	213,365	279,172
Total Recommended Reserve Contributions	65,200	66,900	68,600	70,400	72,200	74,100	76,000	78,000	80,000	82,100	84,200	86,400	88,600	90,900	93,300
Plus Estimated Interest Earned, During Year	2,289	2,552	3,071	3,771	4,094	4,434	5,134	5,828	3,673	1,111	862	1,101	1,918	2,694	3,032
Less Anticipated Expenditures, By Year	(42,598)	(46,257)	0	(17,914)	(73,519)	(19,029)	(12,664)	(25,446)	(536,025)	(99,259)	(114,509)	(14,398)	(14,362)	(27,787)	(100,433)
Anticipated Reserves at Year End	<u>\$221,698</u>	<u>\$244,893</u>	<u>\$316,564</u>	<u>\$372,821</u>	<u>\$375,596</u>	<u>\$435,101</u>	<u>\$503,571</u>	<u>\$561,953</u>	<u>\$109,601</u>	<u>\$93,553</u>	<u>\$64,106</u>	<u>\$137,209</u>	<u>\$213,365</u>	<u>\$279,172</u>	<u>\$275,071</u>

(NOTE 5)

(NOTE 4)

Explanatory Notes:

- 1) Year 2015 starting reserves are as of February 28, 2015; FY2015 starts July 1, 2014 and ends June 30, 2015
- 2) 2016 is the first year of recommended contributions.
- 3) 1.1% is the estimated annual rate of return on invested reserves; 2015 is a partial year of interest earned.
- 4) Accumulated year 2045 ending reserves consider the need to fund for replacement of the tennis court surface shortly after 2045, and the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Years (reserve balance at critical point).

4. CONDITION ASSESSMENT

The Condition Assessment of this *Full Reserve Study* includes *Enhanced Solutions and Procedures* for select significant components. These narratives describe the Reserve Components, document specific problems and conditions, 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

Concrete Sidewalks - The Association maintains 8,700 square feet of concrete sidewalks throughout the community. The sidewalks are in fair overall condition. We note isolated trip hazards, cracks and settlement. Page 5.2 and 5.3 of *Photographs* depicts these conditions. These applications of concrete have useful lives of up to 65 years although isolated deterioration of limited areas of concrete is common. Inclement weather, inadequate subsurface preparation and improper concrete mixtures or finishing techniques can result in premature deterioration such as settlement, chips, cracks and spalls. Variable conditions like these result in the need to plan for periodic partial replacements of the concrete flatwork throughout the next 30 years.

We estimate that up to 3,480 square feet of concrete sidewalks, or forty percent (40%) of the total, will require replacement during the next 30 years. We recommend the Association budget for replacement of 1,160 square feet of concrete sidewalks every 10 years beginning by 2018. Line Item 4.140 of *Reserve Expenditures* notes our estimate of future costs and anticipated times of replacements. We base our estimate of replacement on four-inch thick,

3,000 psi (pounds per square inch) concrete with 6x6 - W1.4xW1.4 steel reinforcing mesh. The times and costs of these replacements may vary. However, the estimated expenditures detailed in *Reserve Expenditures* are sufficient to budget appropriate reserves. We recommend an annual inspection of the sidewalks to identify potential trip hazards. We suggest the Association grind down or mark these hazards with orange safety paint prior to replacement and fund this ongoing activity through the operating budget.

Irrigation System - An irrigation system waters the lawn and landscaped areas throughout the property. The landscape contractor informs us that the system includes 13 controllers and approximately 8- to 16-zones per controller. The system varies in age and is reported in good condition. Management, the Board and the landscape contractor do not report any deficiencies. Irrigation systems typically include the following components:

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

Water pressure activates the lawn spray pop-up heads. Controllers operate the main water flow valves. The exact amounts and locations of system components were not ascertained due to the nature of the underground construction and the non-invasive nature of the inspection.

The system as a whole has a useful life of up to 40 years, however requires interim capital repairs and partial replacements every five years. The system network supply pipes will dislodge as tree roots grow and soil conditions change. Country Villas 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. Country Villas budgets \$8,355 annually through the operating budget to fund partial replacements of the irrigation system. In

addition, we recommend Country Villas budget for capital repairs and partial replacement of the system beginning by 2020 and every five years thereafter. We note this information on Line Item 4.420 of *Reserve Expenditures*.

Light Poles and Fixtures - The Association utilizes 10 globe light fixtures atop fiberglass poles to illuminate the property. These elements are original, in fair condition and have useful lives of up to 25 years. We note a broken globe as shown on Page 5.3 of *Photographs*. Interim replacement of the globes should be funded through the operating budget. The Association should anticipate the need for replacement of the light poles and fixtures by 2018 and again by 2043. We note this information on Line Item 4.560 of *Reserve Expenditures*.

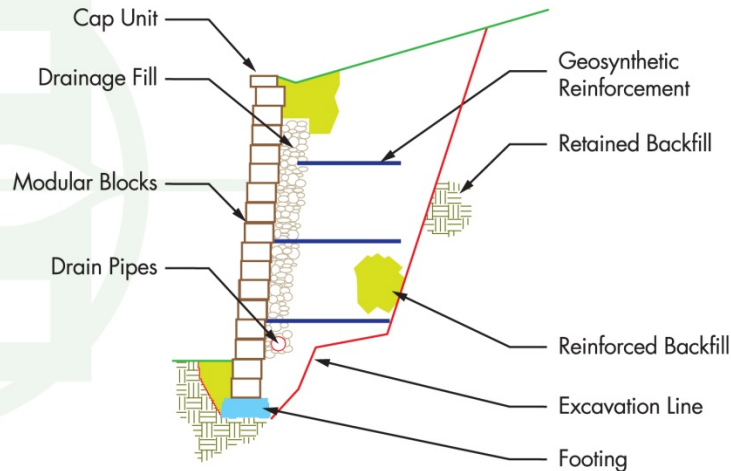
Retaining Wall, Concrete - Country Villas maintains one continuous retaining wall which comprises approximately 1,300 square feet of concrete. The retaining wall is in good condition at an unknown age. These elements have an indeterminately long useful life but are not maintenance free. Periodic inspection and repairs are necessary every 10- to 15-years to maintain the structural integrity of the walls. We recommend the Association budget for inspections and capital repairs by 2021 and every 10 years thereafter. Capital repairs include replacement of up to ten percent (10%) of the walls. We depict this information on Line Item 4.740 of *Reserve Expenditures*.

Retaining Walls, Masonry - The Association maintains multiple retaining walls which comprise approximately 1,850 square feet of mortar set stone throughout the community. The retaining walls are original and in fair overall condition. We note cracks and deterioration at multiple walls. Page 5.5 of *Photographs* depicts this condition.

Stone masonry retaining walls have an indeterminately long useful life but are not maintenance free. Periodic inspection, repointing and repairs are necessary to maintain the structural integrity of the walls. We recommend the Association plan for inspections and capital repairs every 10- to 15-years, or in 2016 and every 10 years thereafter. Capital repairs include replacement of up to ten percent (10%) of the walls. We depict this information on Line Item 4.745 of *Reserve Expenditures*.

Retaining Walls, Timber - The Association maintains multiple retaining walls which comprise approximately 2,650 square feet of wood timbers. The retaining walls are original and in fair overall condition with deterioration present. Page 5.6 of *Photographs* depicts this condition. Timber retaining walls have a useful life of 15- to 20-years. We recommend the Association anticipate a phased replacement beginning in 2016 and concluding by 2026. We advise that Country Villas replace with a modular, interlocking *dry-set masonry retaining wall* system. The following schematic depicts this type of retaining wall:

MASONRY RETAINING WALL DETAIL



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The cost of *dry-set masonry retaining walls* is similar to the cost of timber walls. However, dry-set masonry retaining walls offer a longer useful life of up to 35 years and lower total maintenance costs. We include this information on Line Item 4.760 of ***Reserve Expenditures***.

Tennis Court - Country Villas maintains 7,200 square feet of concrete comprising one tennis court. The components of the court include the color coat, fence and the playing surface. We comment on the respective quantities, conditions and times of replacements in the following sections of this narrative.

Color Coat - The court color coat surface is in fair condition at an unknown age. We recommend the Association apply a new color coat every four- to six-years to maximize the useful life. We advise the Association to apply a new color coat by 2017

and every five years thereafter except when replacement occurs. We include this information on Line Item 4.830 of *Reserve Expenditures*.

Fence - Approximately 360 linear feet of metal chain link fence enclose the court. The chain link fence is in fair condition at approximately 18 years of age. Chain link fences of this type have a useful life of up to 25 years. We recommend the Association anticipate replacement of the fence by 2022, concurrent with the tennis court surface replacement. We depict this information on Line Item 4.840 of *Reserve Expenditures*.

Surface - The court playing surface is in good overall condition at approximately 18 years of age. Tennis courts have useful lives of up to 35 years. In consideration of the observed condition and to maintain a safe playing surface, we recommend the Association anticipate replacement by 2022. We note this information on Line Item 4.860 of *Reserve Expenditures*. We recommend replacement of the tennis standards from the operating budget on an as needed basis. The Association may consider replacement of the tennis court surface with an asphalt pavement playing surface. An asphalt playing surface provides a similar quality surface, at a lower annual cost of ownership. The following table depicts the costs savings the Association can realize if they elect to replace with asphalt.

Tennis Court Surface Material	Concrete	Asphalt
Cost in 2015 Dollars	\$79,200	\$25,300
Divided by its Useful Life (Years)	35	25
Equals Cost of Ownership ¹ Relating to Eventual Replacement, in 2015 Dollars	\$2,263	\$1,012
Total Life-Cycle Maintenance Costs, in 2015 Dollars	\$7,200	\$7,200
Divided by Life-Cycle of Each Maintenance Event (Years)	5	5
Cost of Ownership for Maintenance During Remaining Useful Life, in 2015 Dollars	\$1,440	\$1,440
Total Annual Cost of Ownership (2015 dollars)	\$3,703	\$2,452

¹ Cost of Ownership is a method to describe the direct and indirect costs to purchase and maintain an element through its entire useful life.

The above table depicts the lower annual cost of ownership if the Association were to replace the concrete court with an asphalt pavement playing surface. While the asphalt pavement has a lower useful life, this is offset by the larger reduction in replacement cost.

The times and costs of these replacements may vary. However, the estimated expenditures detailed in *Reserve Expenditures* are sufficient to budget appropriate reserves.

Clubhouse Elements

Exercise Equipment - The exercise room contains the following types of cardiovascular aerobic training equipment:

- Elliptical
- Stationary cycle
- Stepper
- Treadmill

The exercise room contains the following types of strength training equipment:

- Bench
- Dumbbells
- Hoist H4400 4 Stack Multi Gym
- Weight training machines

The exercise equipment is in fair condition at an unknown age. The useful life of cardiovascular equipment of this type is from 5- to 10-years. The useful life of strength training equipment of this type is up to 15 years. We recommend the Association anticipate periodic phased replacement of the exercise equipment from continued but naturally varied use and advances in technology. We recommend Country Villas anticipate replacement of all cardiovascular equipment and up to fifty percent (50%) of the strength training equipment every seven years beginning by 2018. The times and costs of these replacements may vary. However, we judge the amounts shown on Line Item 5.160 of *Reserve Expenditures* sufficient to budget appropriate reserves.

Exterior Renovation - The clubhouse exterior comprises the following:

- 1,600 square feet of brick
- 1,650 square feet of siding
- 450 linear feet of joint sealants

The clubhouse exterior is in overall good to fair condition. The useful lives of the clubhouse exterior elements vary significantly. However, due to the relatively small quantities and interrelated nature of these elements, we recommend the Association combine their replacements into coordinated exterior renovations every 8- to 12-years.

These renovations should include the following:

- Inspection of the brick veneer including partial repointing of up to four percent (4%)
- Partial replacement of up to one percent (1%) of the wood siding and trim
- Replacement of up to fifty percent (50%) of the window and door joint sealants as needed

Based on the age and visual condition of these exterior clubhouse elements, we recommend the Association budget for the next coordinated exterior renovation in 2016 and

every eight years thereafter. In addition to the renovation items noted above, we include the following items in the 2016 expenditure:

- Repair and partial replacement of the roof overhang on the east side of the clubhouse
- Repair and partial replacement of the damaged masonry retaining wall at the roof overhang
- Sidewalk protection
- Temporary shoring and support of roof overhang during construction
- Wood trim and sealant replacement on the west side of the clubhouse

Line Item 5.310 of *Reserve Expenditures* notes this information. The Association funds paint finishes to the wood siding and trim through the operating budget.

HVAC Equipment - The clubhouse heating, ventilating and air conditioning (HVAC) equipment includes two interior air handling units and two remote condensing units with cooling capacities of five-tons each. These units were replaced in 2002 and are in good operational condition. The useful life of residential size units is from 12- to 18-years. We recommend the Association anticipate the replacement of this equipment by 2018 and again by 2034. We base our cost on Line Item 5.450 of *Reserve Expenditures* on a 13 seasonal energy efficiency ratio (SEER) condensing unit as required by The Department of Energy since January of 2006.

Interior Renovations - The clubhouse interior comprises approximately 1,720 square feet of finished area. This quantity excludes the rest rooms as we include renovation of these areas on a separate line item. Interior components of the clubhouse include:

- Tile floor coverings
- Paint finishes on the walls and ceilings
- Plumbing fixtures
- Light fixtures
- Kitchen cabinets and countertops
- Furnishings including sofas, tables and chairs
- Various appliances including a stove, refrigerator and microwave

The Association last partially renovated the clubhouse interior in 2001 and it is in good overall condition. We note an isolated stain on the ceiling that could indicate water intrusion, and recommend the Association inspect and make necessary repairs funded through the operating budget. Page 5.12 of *Photographs* depicts this condition. The useful lives of these interior building elements vary. However, due to the interrelated nature of these elements and the desire to achieve a uniform appearance, we recommend the Association combine their replacements into coordinated interior renovations. We recommend the Association anticipate a complete interior renovation of the clubhouse every 20 years. The complete renovation should include replacement of all the interior components listed above.

Based on the age and visual condition of these interior clubhouse elements, we recommend the Association budget for a coordinated complete interior renovation by 2021 and again by 2041.

In addition to the complete renovation, Country Villas should also anticipate partial interior renovations every 10 years. These partial renovations should include the following:

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

Based on the reported age and visual condition of these interior clubhouse elements, we recommend the Association budget for coordinated partial interior renovations by 2031. Line Items 5.500 and 5.510 of *Reserve Expenditures* note our estimates of future costs and anticipated times of interior clubhouse renovations.

Rest Rooms - The Association maintains two common area rest rooms located in the clubhouse. Components of the rest rooms include:

- Tile floor coverings

- Paint finishes on the walls and ceiling
- Light fixtures
- Plumbing fixtures

The components are in good overall condition at an unknown age. The useful life of rest room components varies up to 25 years. Periodic renovations are an astute practice to maintain a positive overall appearance of the Association. We recommend the Association budget for a renovation by 2021 concurrent with the clubhouse interior renovation. We note this information on Line Item 5.590 of *Reserve Expenditures*. The Association should verify the rest room renovations comply with the Americans with Disabilities Act.

Roof, Asphalt Shingles - The clubhouse roof comprises 40 *squares*¹ of asphalt shingles. The roof was replaced in 2004 and is in good condition. We note evidence of water intrusion as noted on page 5.12 of *Photographs*. The useful life of an asphalt shingle roof is from 15- to 20-years. We recommend the Association anticipate complete replacement of the clubhouse roof by 2024 and again by 2044. We note this information on Line Item 5.600 of *Reserve Expenditures*.

Windows and Doors - The clubhouse windows and doors comprise approximately 600 square feet, are original and are in fair condition. Construction of the windows and doors at the clubhouse includes the following:

- Wood frames
- Single pane glass
- Fixed windows

The useful life of wood frame windows and exterior doors is up to 40 years. The useful life of the windows and doors is based on the occurrence of water infiltration, thermal inefficiencies compared to present technology, type of frame, availability of replacement parts

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

and aesthetics. Based on these factors, we recommend the Association anticipate replacement of these windows and doors by 2019. We depict this information on Line Item 5.800 of *Reserve Expenditures*.

Pool Elements

Concrete Deck - A concrete deck surrounds the pool and comprises approximately 4,960 square feet. The deck was substantially repaired in 2015 and is in good overall condition. We note major isolated damage at the north end of the deck. Page 5.16 of *Photographs* depicts this condition. The Association should fund the near term repairs to this isolated area of damage through the operating budget. The useful life of a concrete pool deck is up to 60 years. However, we recommend the Association conduct inspections, partial replacements and repairs to the deck every 8- to 12-years.

Inadequate subsurface preparation, improper concrete mixtures, poor finishing techniques, soil movement and water infiltration underneath the concrete deck can cause significant settlement and cracks in the concrete. The pool deck should also be free of trip hazards for the safety of residents and their guests. We recommend near term repair of trip hazards at the pool deck funded through the operating budget. We recommend the Association budget for the following by 2027:

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

The times, amounts and related costs of these repairs and replacements may vary. However, we judge the amounts shown on Line Item 6.200 of *Reserve Expenditures* sufficient to budget appropriate reserves.

Fence, Metal - The Association maintains approximately 350 linear feet of metal fence at the pool deck. The fence is original and in fair overall condition. We note detached railings as shown on Page 5.16 of *Photographs*. The protective finishes are original and in fair overall condition. Fences of this type have a long useful life but are not maintenance free. Periodic maintenance should include periodic applications of protective paint finish to the metal surfaces and partial replacement of deteriorated sections as needed. Metal 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. We recommend paint applications every six- to eight-years and we anticipate a useful life of up to 35 years for the fence.

Periodic applications of paint to the metal will help maximize the useful life. Preparation of the metal before application of the paint finish is important. The paint contractor should remove all soil, dirt, oil, grease and other foreign materials before application of the paint finish to maximize its useful life. The contractor should also remove paint blisters and rust prior to the paint finish application. We recommend the use of a power wire brush, scraper and/or sander as effective means of removal. The Association should require the application of a primer on bare metal. The primer for metal surfaces should include a rust inhibitor for added protection. We recommend the Association refinish the fence funded through the operating budget and anticipate replacement of the pool fence by 2018. We include this information on Line Item 6.400 of *Reserve Expenditures*.

Furniture - Associated furniture and fixtures around the pool include the following:

- Chairs (7)
- Lounges (25)
- Tables (3)

The pool furniture varies in age and is in fair condition. Pool furniture has a useful life of up to 12 years. We recommend the Association budget an allowance for replacement of the pool furniture and fixtures in 2016 and every 12 years thereafter. The times and costs of these replacements may vary. However, we judge the amounts shown on Line Item 6.500 of *Reserve Expenditures* sufficient to budget appropriate reserves. We recommend interim re-strapping, refinishing and other repairs to the furniture as normal maintenance to maximize its useful life.

Mechanical Equipment - The pool mechanical equipment comprises the following:

- Automatic chlorinator
- Controls
- Filters
- Interconnected pipe, fittings and valves
- Pumps

The pool mechanical equipment is in good condition at an unknown age. Pool mechanical equipment has a useful life of up to 15 years. Failure of the pool mechanical equipment as a single event is unlikely. We recommend the Association anticipate replacement of up to fifty percent (50%) of the pool mechanical equipment by 2017 and every seven years thereafter. We consider interim replacement of motors and minor repairs as normal maintenance. We note this information on Line Item 6.600 of *Reserve Expenditures*.

Pool Finish, Plaster - The pool wall and floor surfaces have a plaster finish of 1,920 square feet based on the horizontal surface area. The finish was replastered in 2007 and is in good condition. This type of pool finish deteriorates with time and requires periodic maintenance and replacement. We recommend the Association anticipate the need to replace the finish and conduct related repairs every 8- to 12-years to maintain the integrity of the pool structure. Removal and replacement provides the opportunity to inspect the pool structure and to

allow for partial repairs of the underlying concrete surfaces as needed. We recommend the Association budget for the following by 2019 and again by 2029:

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

We include this information on Line Item 6.800 of *Reserve Expenditures*.

Structure and Deck - The concrete pool structure comprises approximately 1,920 square feet of horizontal surface area. The structure is original and visually appears in good condition. The concrete floor and walls have a plaster finish. This finish makes it difficult to thoroughly inspect the concrete structure during a noninvasive visual inspection.

We anticipate a total useful life of up to 60 years for the pool structure. The need to replace a pool structure depends on the condition of the concrete structure, the condition of the embedded or concealed water circulation piping, possible long term uneven settlement of the structure, and the increasing cost of repair and maintenance. Deterioration of any one of these component systems could result in complete replacement of the pool. For example, deferral of a deteriorated piping system could result in settlement and cracks in the pool structure. This mode of failure is more common as the system ages and deterioration of the piping system goes undetected. For reserve budgeting purposes, we recommend Country Villas plan to replace the following components by 2039.

- Concrete deck
- Pool structure
- Subsurface piping

The time and cost of this project may vary. However, we judge the amount shown on Line Item 6.900 of *Reserve Expenditures* sufficient to budget appropriate reserves.

Reserve Study Update

An ongoing review by the Board and an Update of this Reserve Study in two- to three-years 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.

The Association can expense the fee for an Update with site visit from the reserve account. This fee is included in the Reserve Funding Plan. We base this budgetary amount on updating the same property components and quantities of this Reserve Study report. 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. PHOTOGRAPHS

Photographs document the conditions of various property components as of the date of our visual inspection, May 4, 2015. The Condition Assessment contains references to these photographs.

The following is an overview image of the subject property:



The next pages contain the photographs related to the Condition Assessment.



Concrete sidewalk

Note: Previously replaced



Concrete sidewalk trip hazard



Cracked concrete sidewalk



Concrete sidewalk settlement



Light fixture



Broken light fixture globe



Concrete retaining wall



Concrete retaining wall



Masonry retaining wall



Masonry retaining wall

Note: Large cracks



Masonry retaining wall



Timber retaining wall



Timber retaining wall



Deterioration at timber retaining wall



Tennis court overview



Tennis court surface deterioration



Fence at tennis court



Fence at tennis court



Exercise equipment



Exercise equipment



Clubhouse entrance overview



Large crack at clubhouse front wall



Clubhouse side overview



Damage to clubhouse overhang



Clubhouse rear overview



Clubhouse overview



Clubhouse overview



Wood siding at clubhouse

Note: Delaminating from structure



Clubhouse condensing units



Clubhouse interior



Clubhouse Interior



Clubhouse kitchen



Stain on clubhouse ceiling



Replaced tile



Clubhouse rest room



Clubhouse rest room



Clubhouse rest room trim

Note: Trim peeling from wall



Roof overview



Roof overview



Windows



Pool deck overview



Pool deck



Pool deck

Note: Trip hazard



Pool fence



Detached fence



Pool furniture



Pool mechanical equipment



Pool plaster



Pool plaster

6. 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.

Country Villas 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:

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



Information Furnished by the Association	
2015 unaudited Cash Status of the Reserve Fund	34,127
2015 Remaining Budgeted Reserve Contribution	0
Anticipated Interest on Reserve Fund	125
Less Anticipated Reserve Expenditures	0
Projected 2015 Year-End Reserve Balance	\$34,252

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 Carrollton, Texas at an annual inflation rate of 2.6%. 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 Country Villas and their effects on remaining useful lives

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.

The anticipated effects of appreciation of the reserves over time in accord with an anticipated future return or yield on investment of your cash equivalent assets at an annual rate of 1.1% (We did not consider the costs, if any, of Federal and State Taxes on income derived from interest and/or dividend income).

Interest rates on reserves are steady or increasing in concert with the certificates of deposit and money market rates. Slight increases exist in the savings rates of one, two or three-year CDs. Without significant differences in these savings rates, shorter term investments are the choice of many investors. We recommend consultation with a professional investment adviser before investing reserves to determine an appropriate investment strategy to maximize a safe return on reserve savings. The following

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



table summarizes rates of inflation and key rates for government securities, generally considered as safe investment alternatives.

Interest Rate and Inflation Data	2014				2015			
	2014:1 (A)	2014:2 (A)	2014:3 (A)	2014:4 (A)	2015:1 (A)	2015:2 (A)	2015:3 (E)	2015:4 (E)
Average or Last Actual = (A)								
1-Year Treasury Bill	0.13%	0.15%	0.13%	0.01%	0.25%	0.27%	0.30%	0.35%
10-Year Treasury Note	2.80%	2.65%	2.40%	2.25%	1.90%	2.50%	2.70%	2.80%
30-Year Treasury Bond	3.90%	3.50%	3.35%	3.00%	2.55%	3.20%	3.40%	3.50%
Consumer Price Index (annualized rate)	1.50%	2.00%	2.40%	2.60%	0.00%	0.00%	1.00%	1.80%
Residential Construction Producer Price Index-Inflation Rate, Bureau of Labor Statistics (Year over Year to YE 2014 Showing no meaningful change)								0.0%
Savings Rates Results RANGE as found in http://www.bankrate.com	0.10 to 1.10%		Money Market Savings		0.5 to 1.5%		for 2-Year Certificate of Deposit	
	0.23 to 1.25%		1-Year Certificate of Deposit		0.6 to 1.5%		for 3-Year Certificate of Deposit	
Estimated Near Term Yield Rate for Reserve Savings					1.1%			
Est. Near Term Local Inflation Rate for Future Capital Expenditures					2.6%			
					<u>06/10/2015</u>			

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

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 Country Villas 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) Country Villas 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. will perform its services as an independent contractor in accordance with our professional practice standards. Our compensation is not contingent upon our conclusions.

Our inspection and analysis of the subject property is limited to visual observations and is noninvasive. We will inspect sloped roofs from the ground. We will inspect 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 our observation. Conditions can change between the time of inspection and the issuance of the report. Reserve Advisors does not investigate, nor assume any responsibility for any existence or impact of any hazardous materials, structural, latent or hidden defects which may or may not be present on or within the property. Our opinions of estimated costs and remaining useful lives are not a guarantee of the actual costs of replacement, a warranty of the common elements or other property elements, or a guarantee of remaining useful lives.

We assume, without independent verification, the accuracy of all data provided to us. You agree to indemnify and hold us 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 as 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 controlling person of Reserve Advisors, Inc., including any director, officer, employee, affiliate, or agent. Liability of Reserve Advisors, Inc. 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 - Reserve Advisors, Inc. will complete the services in accordance with the Proposal. The Report represents a valid opinion of our findings and recommendations and is deemed complete. However, we will consider any additional information made available to us in the interest of promptly issuing a Revised Report if changes are requested within six months of receiving the Report. We retain the right to withhold a Revised Report if payment for services is not rendered in a timely manner. All files, work papers or documents developed by us during the course of the engagement remains our property.

Your Obligations - You agree to provide us access to the subject property during our on-site visual inspection and tour. You will provide to us to the best of your ability and if reasonably available, historical and budgetary information, the governing documents, and other information that we request and deem necessary to complete our Study. You agree to pay our actual attorneys' fees and any other costs incurred in the event we have to initiate litigation to collect on any unpaid balance for our services.

Use of Our Report and Your Name - Use of this Report is limited to only the purpose stated herein. Any use or reliance for any other purpose, by you or third parties, is invalid. Our Reserve Study Report in whole or part is not and cannot be used as a design specification, design engineering services or an appraisal. You may show our report in its entirety to those third parties who need to review the information contained herein. The Client and other third parties viewing this report should not reference our name or our report, in whole or in part, in any document prepared and/or distributed to third parties without our written consent. *This report contains intellectual property developed by Reserve Advisors, Inc. specific to this engagement and cannot be reproduced or distributed to those who conduct reserve studies without the written consent of Reserve Advisors, Inc.*

We reserve the right to include our client's name in our client lists, but we will maintain the confidentiality of all conversations, documents provided to us, and the contents of our reports, subject to



legal or administrative process or proceedings. These conditions can only be modified by written documents executed by both parties.

Payment Terms, Due Dates and Interest Charges - The retainer payment is due upon authorization and prior to shipment of the report. The final payment of the fee is due immediately upon receipt of the Report. Subsequent changes to the report can be made for up to six months from the initial report date. Any outstanding balance after 30 days of the invoice date is subject to an interest charge of 1.5% per month. Any litigation necessary to collect an unpaid balance shall be venued in Milwaukee County Circuit Court in the State of Wisconsin.

CONDITIONS OF OUR SERVICE ASSUMPTIONS

To the best of our knowledge, all data set forth in this report are true and accurate. Although gathered from reliable sources, we make no guarantee nor assume liability for the accuracy of any data, opinions, or estimates identified as furnished by others that we used in formulating this analysis.

We did not make any soil analysis or geological study with this report; nor were any water, oil, gas, coal, or other subsurface mineral and use rights or conditions investigated.

Substances such as asbestos, urea-formaldehyde foam insulation, other chemicals, toxic wastes, environmental mold or other potentially hazardous materials could, if present, adversely affect the validity of this study. Unless otherwise stated in this report, the existence of hazardous substance, that may or may not be present on or in the property, was not considered. Our opinions are predicated on the assumption that there are no hazardous materials on or in the property. We assume no responsibility for any such conditions. We are not qualified to detect such substances, quantify the impact, or develop the remedial cost.

We have made a visual inspection of the property and noted visible physical defects, if any, in our report. Our inspection and analysis was made by employees generally familiar with real estate and building construction; however, we did not do any invasive testing. Accordingly, we do not opine on, nor are we responsible for, the structural integrity of the property including its conformity to specific governmental code requirements, such as fire, building and safety, earthquake, and occupancy, or any physical defects that were not readily apparent during the inspection.

Our opinions of the remaining useful lives of the property elements do not represent a guarantee or warranty of performance of the products, materials and workmanship.



9. 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 a 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, Inc., 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. Each Team Review requires the attendance of several engineers, a Review Coordinator, Director of Quality Assurance and other participatory peers. 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, Inc. 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 100-story John Hancock Center 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 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

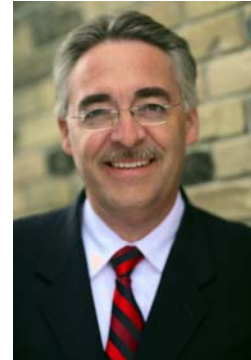
Reserve Advisors experience includes ornate and vintage buildings as well as modern structures. Our specialists are no strangers to older buildings. We're accustomed to addressing the unique challenges posed by buildings that date to the 1800's. We recognize and consider the methods of construction employed 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, Registered in 1982



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



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

CURRENT CLIENT SERVICES

Alan M. Ebert, a Geological Engineer, is an Advisor for Reserve Advisors, Inc. Mr. Ebert 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 condominiums, townhomes and homeowner associations.

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, Inc., 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

Reserve Specialist (RS) - Community Associations Institute

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

Professional Engineering License - Wisconsin 2012



NICOLE L. LOWERY, PRA, RS
Associate Director of Quality Assurance

CURRENT CLIENT SERVICES

Nicole L. Lowery, a Civil Engineer, is an Advisor for *Reserve Advisors, Inc.* Ms. Lowery is responsible for the inspection and analysis of the condition of clients' property, and recommending engineering solutions to prolong the lives of the components and prepares reports on assignments. She is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast services on condominiums, townhomes, planned unit developments, and homeowner associations.

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

Berkeley Square Condominium Association A townhome style condominium development of 122 units in 18 buildings located in Tampa, Florida. The buildings feature complex roof designs, masonry veneer, and stucco construction.

3 Chisolm Street Homeowners Association This historic Charleston, South Carolina community was constructed in 1929 and 1960 and comprises brick and stucco construction with asphalt shingle and modified bitumen roofs. The unique buildings were originally the Murray Vocational School. The buildings were transformed in 2002 to 27 high-end condominiums. The property includes a courtyard and covered parking garage.

Lakes of Pine Run Condominium Association This condominium community comprises 112 units in 41 buildings of stucco construction with asphalt shingle roofs. Located in Ormond Beach, Florida, it has a domestic water treatment plant and wastewater treatment plant for the residents of the property.

Rivertowne on the Wando Homeowners Association This exclusive river front community is located on the Wando River in Mount Pleasant, South Carolina. This unique Association includes several private docks along the Wando River, a pool and tennis courts for use by its residents.

Biltmore Estates Homeowners Association This private gated community is located in Miramar, Florida, just northwest of Miami, Florida and consists of 128 single family homes. The lake front property maintains a pool, a pool house and private streets.

Bellavista at Miromar Lakes Condominium Association Located in the residential waterfront resort community of Miromar Lakes Beach & Golf Club in Fort Myers, Florida, this property comprises 60 units in 15 buildings. Amenities include a clubhouse and a pool.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Inc., Ms. Lowery was a project manager with Kipcon in New Brunswick, New Jersey and the Washington, D.C. Metro area for eight years, where she was responsible for preparing reserve studies and transition studies for community associations. Ms. Lowery successfully completed the bachelors program in Civil Engineering from West Virginia University in Morgantown, West Virginia.

EDUCATION

West Virginia University - B.S. Civil Engineering

PROFESSIONAL AFFILIATIONS / DESIGNATIONS

Reserve Specialist (RS) - Community Associations Institute

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



**ANDREW L. STOUTENBURG, Civil Engineer
Responsible Advisor**

CURRENT CLIENT SERVICES

Andrew L. Stoutenburg, a Civil Engineer, is an Advisor for *Reserve Advisors, Inc.* 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.

Cinco Ranch Residential Association II, Inc. A master association located near Houston, Texas, includes over 5,500 single family homes and covers more than 2,400 acres. The community includes multiple pools and amenity areas, decorative inlaid masonry walls, fences, ponds and concrete flatwork.

Devonwood Homeowners Association, Inc. Located in pristine Tampa, Florida, this gated community consists of 150 units in duplex style buildings. These modern homes were constructed from 2007 through 2013 and comprise asphalt shingle roofs, stone veneer and stucco façade. Devonwood contains a pool area comprised of a brick paver deck, Romanesque columns, a cabana and pool house.

Emerald Island Resort Master Association, Inc. A master association located in Orlando, Florida, responsible for the common elements shared by 721 single family homes and townhomes. The community contains a clubhouse complete with a gym, arcade, business center, sauna and offices, two pool amenity areas, playgrounds, ponds, retaining walls and asphalt pavement street system.

Island Club at Rocky Point Condominium Association, Inc. A vintage style 138-unit condominium association located in Tampa, Florida, Island Club at Rocky Point was originally built in 1996 and converted to condominiums in 2006. The community comprises stucco façade walls and concrete tile roofs, asphalt pavement, retaining walls, an updated clubhouse and pool.

Grandview Homeowners Association Located in San Antonio, Texas, this extensive community comprises 362 single family homes. Grandview contains a clubhouse with a playground, basketball court and pool area and pergola. There are multiple mixed material fences and stone masonry perimeter walls surrounding the Association.

Vieux Carre Condominium Association This 54-unit community located in Tampa, Florida, has French architecture design elements throughout. Constructed from 1975 through 1978, the ornate community is comprised of asphalt mansard roofs, built-up roofs, stucco façade walls, wrought iron details, asphalt pavement, a clubhouse and pool.

Villas of Stony Farm Condominium Council of Co-Owners, Inc. Located in Louisville, Kentucky, this heavily sidewalked community consists of 82 units in 39 buildings. The buildings comprise asphalt shingle roofs, vinyl siding and masonry veneer. The development contains a complex irrigation system.

PRIOR RELEVANT EXPERIENCE

Before joining *Reserve Advisors, Inc.* 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

Engineering Intern (EI) – State of Florida, 2010



HEATHER M. CHRISTENSEN, RS
Review Coordinator

CURRENT CLIENT SERVICES

Heather M. Christensen, a Structural Engineer, is an Advisor for *Reserve Advisors, Inc.* Ms. Christensen 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, homeowner associations, planned unit developments and recreational associations. Ms. Christensen frequently serves as the *Quality Assurance Review Coordinator* for all types of developments.

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

Lawrence Square Townhomes Association A townhome association in Chicago, Illinois with 30 units in four buildings, this development displays uniqueness with shaped EIFS, vinyl siding, masonry walls and flat roofs. These buildings are connected with two bridges at the second stories, overlooking individual garages and private asphalt parking and streets.

Brighton Commons Condominium Association This row style townhome development in Manassas, Virginia includes 87 units in nine buildings which comprise asphalt shingle roofs and mansard roofs, vinyl siding, bay windows and streets and parking.

Ronald McDonald House Charity of San Diego Located in San Diego, California, the Charity provides 47 guest rooms to families. Built atop a seven story parking garage, the exteriors comprise masonry, stucco and a thermoplastic polyolefin roof with solar panels. The development includes a landscaped courtyard plaza located with the building footprint.

Pembroke North Homeowners Association Located in Wayne, Pennsylvania, this development contains 54 units in three LEED buildings. The building exteriors comprise flat membrane roofs, masonry siding and elevated garden plazas. The development contains a parking structure, asphalt pavement, finished interior lobbies and hallways, and a geothermal system.

The Valdosta-Lowndes County Conference Center and Tourism Authority This institutional development located in Valdosta, Georgia comprises metal awnings, metal and modified bitumen roofs, brick veneer and metal siding. The interiors included conference rooms and partitions, and the property includes a patio, pond and parking areas.

St. Philip the Apostle Catholic Church This church in Lancaster, Pennsylvania comprises five buildings, including classrooms, offices, a gym, a lobby and a rectory from 1849. The exteriors include masonry and EIFS wall systems, and asphalt, EPDM and slate roofs.

PRIOR RELEVANT EXPERIENCE

Before joining *Reserve Advisors, Inc.*, Ms. Christensen attended the Milwaukee School of Engineering in Milwaukee, Wisconsin where she attained her Master of Science degree in Structural Engineering and her Bachelor of Science degree in Architectural Engineering. She also worked for Computerized Structural Design, Inc. where she worked on structural design projects for steel structures. Heather's previous involvement with Engineers Without Borders includes the design and construction of bridges in Guatemala.

EDUCATION

Milwaukee School of Engineering - M.S. Structural Engineering
Milwaukee School of Engineering - B.S. Architectural Engineering

PROFESSIONAL AFFILIATIONS

Engineer In Training (E.I.T.) Registration - Wisconsin
Reserve Specialist (RS) - Community Associations Institute



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.msbinfo.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.