

# FULL RESERVE STUDY

## Canyon Gate at Cinco Ranch Owners Association, Inc.



**Katy, Texas**

**December 8, 2015**



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# Reserve Study Update

January 8, 2016

The Reserve Study for Canyon Gate at Cinco Ranch Owners Association, Inc.  
Was submitted on .....January 8, 2016

To maintain the most accurate and cost-effective replacement schedule and funding plan for your property elements, this study should be updated on or about .....**First Quarter, 2018**  
...but no later than.....**First Quarter, 2019**

As a valued client, we are pleased to offer a future reserve study update with site visit for.....**\$2,750**

For a Reserve Study Update with Site visit as noted above.

**This future update fee is based on the same property components that were contained in your last Reserve Advisors' reserve study or update. We are pleased to include property additions for an additional fee.**

To initiate your Reserve Study Update, please sign this authorization and fax or mail to the number below. Upon receipt of this authorization we will contact you to schedule your site visit and invoice for the Reserve Study Update Service.

Sign this contract below and fax to **414-272-3663**. Or mail to  
Reserve Advisors, Inc.  
735 N. Water St., Suite 175  
Milwaukee, WI 53202

Delivery options for your Reserve Study Update Report, Please check one of the following:

- 1-Full color printed copy PLUS Electronic Report, FREE
- 2-Full color printed copies PLUS Electronic Report, \$100

**For: Reserve Advisors, Inc.**

Signature:  \_\_\_\_\_

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**For Canyon Gate at Cinco Ranch Owners Association, Inc.**

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Title: \_\_\_\_\_

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**Management Firm:** CCB Property Management



Long-term thinking. Everyday commitment.



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## 1. RESERVE STUDY EXECUTIVE SUMMARY

**Client:** Canyon Gate at Cinco Ranch Owners Association, Inc. (Canyon Gate at Cinco Ranch)

**Location:** Katy, Texas

**Reference:** 151683

**Property Basics:** Canyon Gate at Cinco Ranch Owners Association, Inc. is a planned unit development which is responsible for the common elements shared by 721 units. The single family homes were built from 1998 to 2003. The clubhouse and pool were built in 1999, and the guard house was built in 2006. The development contains concrete streets, perimeter walls, playgrounds, sport courts, clubhouse and pools.

**Reserve Components Identified:** 30 Reserve Components.

**Inspection Date:** December 8, 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 this threshold funding year in 2034 due to replacement of perimeter walls.

The *Reserve Funding Plan* recommends 2045 year end accumulated reserves of approximately \$1,020,000. We judge this amount of accumulated reserves in 2045 desirable or necessary, to fund the likely continued replacement of the concrete streets after 2045. These future needs, although beyond the limit of the Cash Flow Analysis of this Reserve Study, are reflected in the amount of accumulated 2045 year end reserves.

**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
- 1.35% annual rate of return on invested reserves
- 3.0% future Inflation Rate for estimating Future Replacement Costs

**Sources for Local Costs of Replacement:** Our proprietary database, historical costs and published sources, i.e., R.S. Means, Incorporated.

**Cash Status of Reserve Fund:** \$335,000 projected by Management and the Board as of December 31, 2015. A potential deficit in reserves might occur by 2028 based upon continuation of the most recent annual reserve contribution of \$50,000 and the identified Reserve Expenditures.

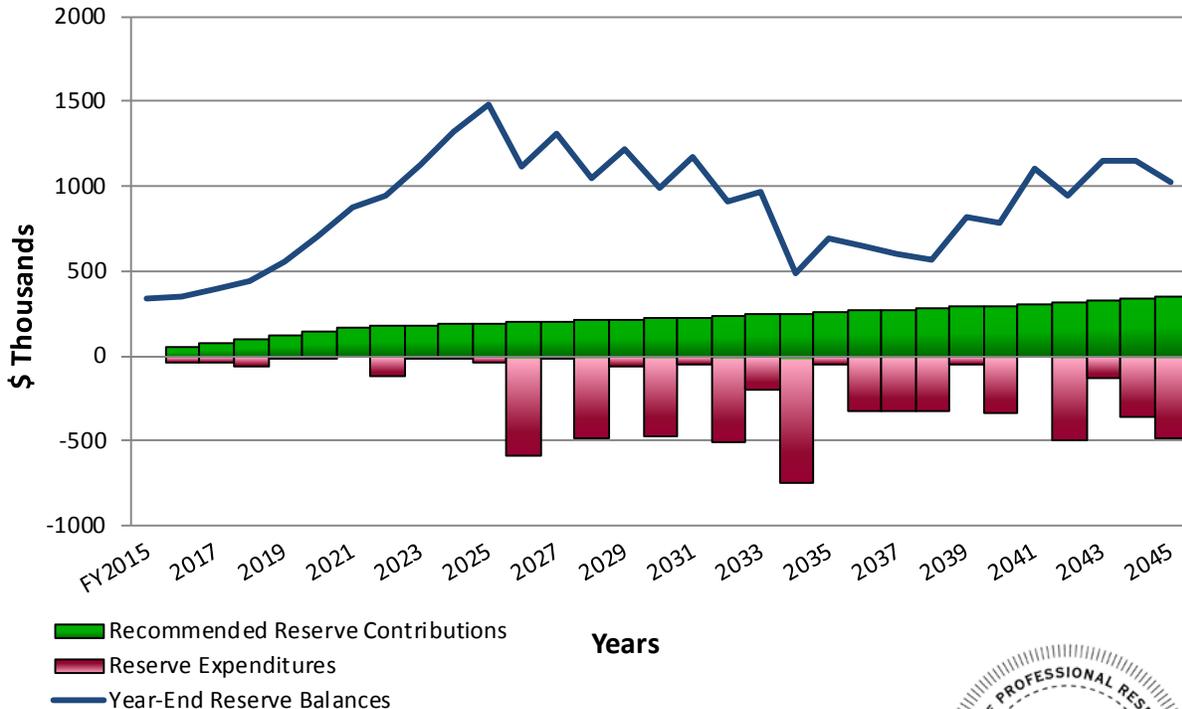
**Recommended Reserve Funding:** The Association historically contributes an operating surplus to reserves annually. The Association anticipates a Reserve Contribution of \$50,000 in 2016. We recommend the Association budget annual phased increases in Reserve Contributions of approximately \$24,000 from 2017 through 2021. 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 study's Cash Flow Analysis. The initial recommended adjustment in Reserve Contributions of \$24,000 represents about a three percent (3.1%) adjustment in the 2016 total Operating Budget of \$785,160. This initial recommended adjustment of \$24,000 is equivalent to an increase of \$2.77 in the monthly contributions per homeowner.



**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.”

**Canyon Gate at Cinco Ranch**  
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2016	50,000	353,354	2026	197,100	1,112,873	2036	265,100	643,282
2017	74,000	400,056	2027	203,000	1,311,597	2037	273,100	602,060
2018	98,000	439,982	2028	209,100	1,049,741	2038	281,300	565,388
2019	122,000	556,847	2029	215,400	1,223,662	2039	289,700	815,970
2020	146,000	699,679	2030	221,900	986,792	2040	298,400	786,381
2021	170,000	880,272	2031	228,600	1,175,814	2041	307,400	1,106,472
2022	175,100	950,019	2032	235,500	915,632	2042	316,600	942,729
2023	180,400	1,125,332	2033	242,600	968,788	2043	326,100	1,154,192
2024	185,800	1,317,201	2034	249,900	482,158	2044	335,900	1,147,847
2025	191,400	1,487,086	2035	257,400	693,256	2045	346,000	1,019,918



Respectfully submitted on January 8, 2016 by  
RESERVE ADVISORS, INC.



Alan M. Ebert, PRA<sup>1</sup>, RS<sup>2</sup>, Director of Quality Assurance  
Reviewed by: Matthew P. Ksionzyk, PRA, RS, Associate Director of Quality Assurance  
Visual Inspection and Report by: Stephanie A. Mueller, RS



<sup>1</sup>PRA (Professional Reserve Analyst) is the professional designation of the Association of Professional Reserve Analysts. Learn more about APRA at <http://www.apra-usa.com>.

<sup>2</sup> RS (Reserve Specialist) is the reserve provider professional designation of the Community Associations Institute (CAI) representing America's more than 300,000 condominium, cooperative and homeowners associations.

## 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

**Canyon Gate at Cinco Ranch Owners Association, Inc.**

**Katy, Texas**

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, December 8, 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**

Canyon Gate at Cinco Ranch Owners Association, Inc. is a planned unit development which is responsible for the common elements shared by 721 units. The single family homes were built from 1998 to 2003. The clubhouse and pool were built in 1999, and the guard house was built in 2006. The development contains concrete streets, perimeter walls, playgrounds, sport courts, clubhouse and pools. We identify 30 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 Management and 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:

- Canyon Gate at Cinco Ranch 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, Common
- Foundations, Common
- Pipes, Interior Building, Water and Sewer, Common
- Pipes, Subsurface Utilities
- Pool Structures
- Skate Park, Concrete Surface (2006)
- Structural Frames, Common

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 \$8,000 (Excludes catch basins.) (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Baseball Backstop
- Clubhouse, Balcony
- Clubhouse, Interior Finishes (excluding exercise equipment and tile floor coverings)
- Concrete Deck, Pool, Sealer Application, Proposed
- Concrete Sidewalks (The Association historically funds for annual partial replacements through the operating budget.)
- Concrete Streets, Joint Sealants
- Fences, Steel and Wood, Paint Finishes
- Gate Entry System
- Guard House, Interior Finishes
- Irrigation System, Controllers
- Landscape

- Paint Finishes, Touch Up
- Pavers, Guard House
- Perimeter Walls, Repairs
- Pool Furniture
- Security System
- Shade Structure, Pool
- Shade Structures, Interim Canvas Replacement
- Signage, Monuments
- Signage, Street
- Site Furniture
- Skate Park, Interim Repairs
- Speed Bumps
- Split System, Guard House
- Sport Courts, Standards and Goals (Baseball, Basketball, Soccer, Tennis, Volleyball)
- Walking/Jogging Trail, Crushed Granite and Wood Border
- 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:

- Fences at Lot Lines (excludes panelized brick and concrete walls)
- Homes and Lots

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

Property Maintained by Others relates to:

- Light Poles and Fixtures (Electric Company)
- Mailbox Stations (United States Postal Service)

### 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

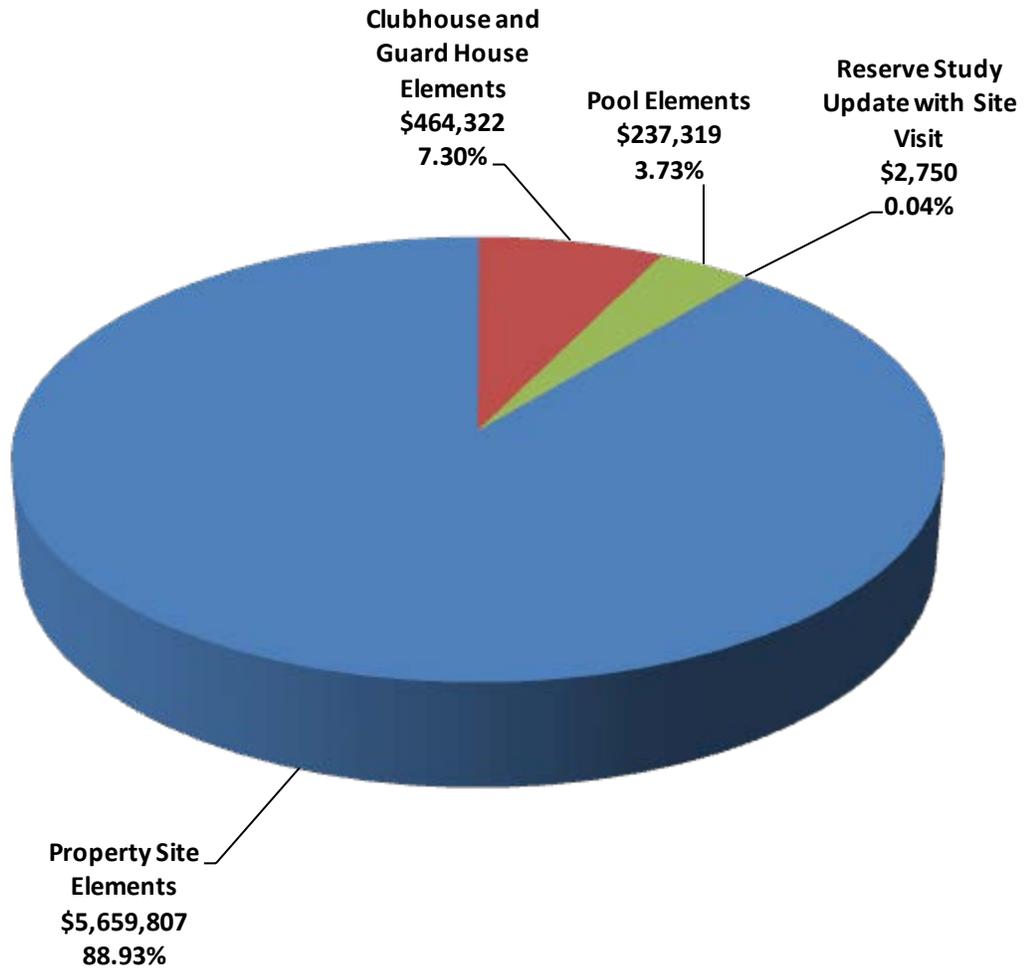
#### **Reserve Funding Plan**

- 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
- 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*.

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

**Canyon Gate at Cinco Ranch**  
 Future Expenditures Relative Cost Illustration







## RESERVE FUNDING PLAN

**CASH FLOW ANALYSIS  
Canyon Gate at Cinco Ranch  
Owners Association, Inc.**

Individual Reserve Budgets & Cash Flows for the Next 30 Years

Katy, Texas	FY2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Reserves at Beginning of Year (Note 1)	N/A	335,000	353,354	400,056	439,982	556,847	699,679	880,272	950,019	1,125,332	1,317,201	1,487,086	1,112,873	1,311,597	1,049,741	1,223,662
<b>Total Recommended Reserve Contributions (Note 2)</b>	N/A	<b>50,000</b>	<b>74,000</b>	<b>98,000</b>	<b>122,000</b>	<b>146,000</b>	<b>170,000</b>	<b>175,100</b>	<b>180,400</b>	<b>185,800</b>	<b>191,400</b>	<b>197,100</b>	<b>203,000</b>	<b>209,100</b>	<b>215,400</b>	<b>221,900</b>
Plus Estimated Interest Earned, During Year (Note 3)	N/A	4,615	5,051	5,632	6,683	8,425	10,593	12,272	13,915	16,377	18,802	17,432	16,255	15,832	15,243	14,821
Less Anticipated Expenditures, By Year	N/A	(36,261)	(32,349)	(63,706)	(11,818)	(11,593)	0	(117,625)	(19,002)	(10,308)	(40,317)	(588,745)	(20,531)	(486,788)	(56,722)	(473,591)
<b>Anticipated Reserves at Year End</b>	<u>\$335,000</u>	<u>\$353,354</u>	<u>\$400,056</u>	<u>\$439,982</u>	<u>\$556,847</u>	<u>\$699,679</u>	<u>\$880,272</u>	<u>\$950,019</u>	<u>\$1,125,332</u>	<u>\$1,317,201</u>	<u>\$1,487,086</u>	<u>\$1,112,873</u>	<u>\$1,311,597</u>	<u>\$1,049,741</u>	<u>\$1,223,662</u>	<u>\$986,792</u>
Predicted Reserves based on 2016 funding level of: \$50,000	335,000	353,354	375,894	367,170	410,567	454,776	511,253	450,073	487,356	533,895	550,851	15,906	45,789	(393,329)	(405,406)	

(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	986,792	1,175,814	915,632	968,788	482,158	693,256	643,282	602,060	565,388	815,970	786,381	1,106,472	942,729	1,154,192	1,147,847
<b>Total Recommended Reserve Contributions</b>	<b>228,600</b>	<b>235,500</b>	<b>242,600</b>	<b>249,900</b>	<b>257,400</b>	<b>265,100</b>	<b>273,100</b>	<b>281,300</b>	<b>289,700</b>	<b>298,400</b>	<b>307,400</b>	<b>316,600</b>	<b>326,100</b>	<b>335,900</b>	<b>346,000</b>
Plus Estimated Interest Earned, During Year	14,500	14,023	12,635	9,728	7,881	8,961	8,350	7,827	9,262	10,743	12,691	13,739	14,059	15,435	14,534
Less Anticipated Expenditures, By Year	(54,078)	(509,705)	(202,079)	(746,258)	(54,183)	(324,035)	(322,672)	(325,799)	(48,380)	(338,732)	0	(494,082)	(128,696)	(357,680)	(488,463)
<b>Anticipated Reserves at Year End</b>	<u>\$1,175,814</u>	<u>\$915,632</u>	<u>\$968,788</u>	<u>\$482,158</u>	<u>\$693,256</u>	<u>\$643,282</u>	<u>\$602,060</u>	<u>\$565,388</u>	<u>\$815,970</u>	<u>\$786,381</u>	<u>\$1,106,472</u>	<u>\$942,729</u>	<u>\$1,154,192</u>	<u>\$1,147,847</u>	<u>\$1,019,918</u>
				(NOTE 5)											(NOTE 4)

**Explanatory Notes:**

- 1) Year 2015 ending reserves are projected by Management and the Board as of December 31, 2015; FY2015 starts January 1, 2015 and ends December 31, 2015.
- 2) 2016 contributions are budgeted; 2017 is the first year of recommended contributions.
- 3) 1.35% is the estimated annual rate of return on invested reserves
- 4) Accumulated year 2045 ending reserves consider the need to fund for continued replacement of the concrete streets after 2045, and the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Year (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**

**Catch Basins** - The 158 concrete catch basins collect storm water from the concrete streets and conduct it into the storm water system. The overall condition of the catch basins is good without significant settlement visually apparent. The useful life of catch basins is up to 60 years. However, achieving this useful life usually requires interim capital repairs or partial replacements every 15- to 20-years.

The Association should anticipate the occasional displacement or failure of a catch basin and the surrounding concrete streets and curbs from erosion. Erosion causes settlement around the collar of catch basins. Left unrepaired, the entire catch basin will shift and need replacement. Canyon Gate at Cinco Ranch should plan to repair or replace any displaced or failed catch basins concurrently with the surrounding concrete streets and curbs. The exact times and amount of capital repairs or replacements are dependent upon variable natural forces. Based on the age and condition of the catch basins, we recommend the Association anticipate the phased inspection, capital repair or partial replacement of the 158 catch basins beginning by 2022 and concluding



by 2040 in conjunction with concrete repairs. We anticipate a subsequent phased event beginning by 2042. We include this information on Line Item 4.100 of *Reserve Expenditures*.

**Concrete, Flatwork** - The Association maintains various applications of concrete flatwork. 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 comment on the respective quantities, conditions and times of partial replacements of concrete flatwork in the following sections of this narrative.

**Concrete Curbs** - Concrete curbs line the pavement of Canyon Gate at Cinco Ranch. These curbs comprise 72,000 linear feet and are in good condition overall. We note limited cracks, spalled concrete and damage. Page 5.2 of *Photographs* depicts these conditions. We estimate that up to 10,800 linear feet of curbs, or fifteen percent (15%) of the total, will require replacement during the next 30 years. We estimate that up to 1,080 linear feet of curbs, or less than two percent (1.5%) of the total, will require replacement in conjunction with partial concrete street replacement beginning by 2026 and every two years thereafter. We depict this information on Line Item 4.110 of *Reserve Expenditures*. We assume the use of 3,500 pounds per square inch (PSI) concrete.

**Concrete Streets** - The Association maintains approximately 1,019,000 square feet of concrete at the private streets. The streets are original and in good overall condition. We note limited areas of cracks, spalls and deterioration. Pages 5.4 through

5.6 of *Photographs* depict these conditions. Canyon Gate at Cinco Ranch replaced limited sections of the streets in the past. Heavy wear from vehicle traffic increases the potential for deterioration.

During warm weather, the pavement expands and the joints narrow. Accumulated incompressible debris in the joints produces high compressive stresses at the adjoining faces of the joints. These compressive stresses can cause spalling of the concrete along the joints. The disintegration and spalling associated with these stresses typically occurs at open, unsealed pavement joints due to moisture and debris accumulation in the joints. For these reasons, we recommend the Association seal all concrete street joints to maximize the useful life of the concrete. The Association should fund these expenses through the operating budget.

We estimate that up to 152,850 square feet of concrete streets, or fifteen percent (15%) of the total, will require replacement during the next 30 years. We advise the Association budget for the replacement of 15,285 square feet of the streets every two years beginning by 2026. Line Item 4.180 of Reserve Expenditures notes our estimate of future costs and anticipated times of replacements.

The Association should coordinate the concrete flatwork partial replacements on Line Items 4.110 and 4.180 of *Reserve Expenditures* to maximize the given amount of concrete in a single event. This will permit the use of a single contractor and likely achieve the most economical unit price for the work. The times and costs of these replacements may vary. However, the estimated expenditures detailed in *Reserve Expenditures* are sufficient to budget appropriate reserves.



**Fence, Chain Link** - Approximately 900 linear feet of chain link fence are found at the park at the south perimeter of the property. The fence was replaced in 2006 and is in good condition. Chain link fences have useful lives of up to 25 years. We recommend the Association anticipate replacement by 2031. We suggest the Association install vinyl coated fence at the time of replacement. We depict this information on Line Item 4.220 of *Reserve Expenditures*.

**Fences, Steel** - Approximately 2,150 linear feet of steel fences are found at the main entrance, a portion of the north perimeter of the property and at cul-de-sacs. This quantity excludes the steel fences atop panelized concrete walls, as we include replacement on a separate line item. The fences are original and in good to fair condition. The protective finishes are in fair condition at an unknown age. We note rust and corrosion. Page 5.7 of *Photographs* depicts this 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 steel surfaces and partial replacement of deteriorated sections as needed. 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. We recommend paint applications funded through the operating budget and we anticipate a useful life of up to 35 years for the fences. We anticipate a phased replacement beginning by 2033 and concluding by 2034. We depict this information on Line Item 4.245 of *Reserve Expenditures*.

**Fences, Wood** - Approximately 350 linear feet of wood fences are found along Canyon Gate Boulevard between Marina Canyon Way and Deep Canyon Drive. The fences are original and in fair to poor condition. We note damage, warped boards and leaning sections. Page 5.8 of *Photographs* depicts this condition. Wood fences of this type have useful lives of 15- to 20-



years. The Association should anticipate periodic partial replacements due to the non-uniform nature of wood deterioration. Along with these partial replacements, the Association should apply periodic paint applications as needed and fund these activities through the operating budget. We suggest the Association plan for replacement by 2018 and again by 2038. We depict this information on Line Item 4.285 of *Reserve Expenditures*.

**Gates and Operators** - The six metal gates and three operators limit access into the community. The operators were upgraded since 2010 and are in good reported condition. The gates are original and in good overall condition with rust evident. We anticipate a useful life of up to 10 years for the operators and recommend the Association budget for replacement by 2019 and every 10 years thereafter. The gates have a longer useful life of up to 25 years. Canyon Gate at Cinco Ranch should anticipate replacement of the gates by 2023. We depict this information on Line Items 4.320 and 4.330 of *Reserve Expenditures*.

**Irrigation System** - An irrigation system waters the lawn and landscaped areas at the entrances, clubhouse and parks. The system includes seven controllers and approximately 70 zones. The system is original and reported in good condition. Management and the Board 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. The system network supply pipes will dislodge as tree roots grow and soil conditions change. Canyon Gate at Cinco Ranch 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. In addition, we recommend Canyon Gate at Cinco Ranch budget for a complete replacement of the system by 2037. We note this information on Line Item 4.420 of *Reserve Expenditures*.

**Perimeter Walls, Panelized Brick** - The Association maintains approximately 1,250 linear feet of panelized brick masonry perimeter walls, also referred to as panel fences. The walls are primarily located at the west perimeter and along a portion of Canyon Gate Boulevard near the main entrance. The walls are original and in good overall condition. We note limited areas of efflorescence, mortar deterioration and settlement. Pages 5.9 and 5.10 of *Photographs* depict these conditions.

These walls comprise brick masonry panels with a thickness of one brick and do not utilize a foundation for support. Rather, the panels are supported internally with ladder wire and externally by traditional masonry columns. These types of walls are prone to damage primarily as a result of water infiltration due to precipitation or errant spray from irrigation systems. Water infiltration within the panels or columns results in deterioration of the internal metal support wire. Sag, cracks, spalls and mortar deterioration are evidence of water infiltration and the likely need to replace the panels. Therefore, we anticipate a significantly shorter useful life when compared to typical brick masonry walls. Based on the type of walls and history of replacement, we anticipate a useful life of 40- to 50-years. We suggest the Association budget for a phased replacement of the walls beginning by 2042 and concluding by 2043. We depict this information



on Line Item 4.642 of *Reserve Expenditures*. To maximize the useful life of these walls, the Association should direct irrigation system heads away from the walls and ensure tree roots do not undermine the support columns.

**Perimeter Walls, Panelized Concrete** - The Association maintains approximately 7,900 linear feet of full height, or tall, panelized concrete perimeter walls. In addition, the Association maintains approximately 1,050 linear feet of panelized concrete walls with steel fences mechanically attached to the concrete posts. The walls are primarily located along Canyon Gate Boulevard, Verde Canyon Drive, a portion of the north perimeter and near the clubhouse park area. The walls are original and in good to fair condition. We note stains, post deterioration, cracks, exposed reinforcement, evidence of movement, and damage. Pages 5.11 through 5.13 of *Photographs* depict these conditions. Management and the Board inform us the Association will likely replace the concrete walls with a panelized brick wall. We also recommend the Association consider replacement of the combination concrete and steel fence walls with steel fences similar to other fences located throughout the property. The Association will benefit from the cost savings of replacing a portion of these panelized walls with steel fences.

As mentioned previously, these types of walls do not utilize a foundation for support. Rather, the panels are supported internally with ladder wire and externally by traditional masonry columns. These types of walls are prone to damage primarily as a result of water infiltration due to precipitation or errant spray from irrigation systems. Water infiltration within the panels or columns results in deterioration of the internal metal support wire. Sag, cracks, spalls and mortar deterioration are evidence of water infiltration and the likely need to replace the panels. Therefore, we anticipate a useful life of 40- to 50-years. We suggest the Association budget for a phased replacement of the tall walls without steel fences beginning by 2026 and concluding by

2034. We recommend the Association budget for a phased replacement of the combination concrete and steel fence walls beginning by 2033 and concluding by 2034. We depict this information on Line Items 4.643 and 4.644 of *Reserve Expenditures*.

**Playground Equipment** - The Association maintains playground equipment near the clubhouse and at the park near the south perimeter of the property. The playground equipment includes the following elements:

- Benches
- Border, plastic
- Climbing wall
- Picnic tables
- Playsets
- Shade structures
- Surface, mulch
- Swing sets
- Trash receptacles

The playground equipment at the clubhouse is original and in fair condition. The playground equipment at the south park was installed in 2006 and is in good overall condition. 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](http://PlaygroundSafety.org). We recommend the use of a specialist for the design or replacement of the playground equipment environment. Playground equipment of this type has a useful life of 15- to 20- years. We recommend replacement of the playground equipment at the clubhouse by 2018 and again by 2037. We recommend the Association anticipate replacement at the south park by 2026. We include this information on Line Items 4.660 and 4.661 of *Reserve Expenditures*.



**Skate Park** - The skate park at Canyon Gate at Cinco Ranch comprises 3,525 square feet of concrete with various composite ramps. The skate park was installed in 2006 and is in good overall condition. The concrete surface has a useful life of 40- to 50-years and therefore, we do not anticipate complete replacement within the next 30 years. However, to maintain a safe playing surface, we anticipate the need for capital repairs up to every 20 years. Capital repairs may include crack repairs and partial replacement of the concrete, and replacement of the composite ramps. We recommend the Association budget for this event by 2026. We depict this information on Line Item 4.723 of *Reserve Expenditures*. The times and costs of these capital repairs may vary. The Association should continue to budget for interim minor repairs through the operating budget.

**Sport Courts** - Canyon Gate at Cinco Ranch maintains 14,400 square yards of concrete comprising two tennis courts and 7,800 square feet of concrete comprising two basketball courts. The components of the courts include the color coat, fences, light poles and fixtures, and the playing surfaces. We comment on the respective quantities, conditions and times of replacements in the following sections of this narrative.

**Color Coat** - The court color coat surfaces at the tennis courts are in fair overall condition at an unknown age. We recommend the Association apply a new color coat every four- to six-years to maximize the useful life. Prior to the application of the color coat, the Association should require the contractor to rout and fill all cracks with hot emulsion. This deters water infiltration and further deterioration of the concrete playing surface. We advise the Association to perform crack repairs and apply a new color coat application by 2017 and every five years thereafter except when replacement occurs. We include this information on Line Item 4.830 of *Reserve Expenditures*. The Association



should fund for color coat applications to the basketball court through the operating budget.

*Fence* - Approximately 480 linear feet of metal chain link fence enclose the tennis courts. The chain link fence is original and in good to fair overall condition. 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 and again by 2045 concurrent with concrete surface replacement. We depict this information on Line Item 4.840 of *Reserve Expenditures*.

*Light Poles and Fixtures* - The Association maintains eight light poles and fixtures to illuminate the tennis courts. The metal poles and fixtures are original and in good to fair condition with rust evident. Page 5.16 of *Photographs* depicts this condition. Light poles and fixtures of this type have a useful life of up to 35 years. We recommend the Association anticipate replacement by 2022, concurrent with fence replacement. We include this information on Line Item 4.850 of *Reserve Expenditures*.

*Surface* - The tennis and basketball court playing surfaces are original and in good overall condition. We note very few cracks. Pages 5.15 through 5.17 of *Photographs* depict these conditions. Concrete sport courts have useful lives of 40- to 50-years. In consideration of the observed condition and to maintain a safe playing surface, we recommend the Association anticipate replacement by 2045. We note this information on Line Item 4.860 of *Reserve Expenditures*. We recommend replacement of the tennis and basketball standards from the operating budget on an as needed basis.



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

### **Clubhouse and Guard House Elements**

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

- Ellipticals
- Stepper
- Television
- Treadmills

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

- Benches
- Dumbbells
- Weight training

The majority of the equipment was replaced in 2015. The useful life of cardiovascular equipment and strength training equipment of this type varies up to 10 years. We recommend Canyon Gate at Cinco Ranch anticipate replacement of the equipment by 2025 and every 10 years thereafter. 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. The Association should budget for interim replacement of exercise equipment through the operating budget.

**Floor Coverings, Tile** - Tile comprises 140 square yards of the clubhouse floor coverings. The tile is original and in fair condition. We note cracks and loose tiles. Page 5.19 of *Photographs* depicts this condition. Management and the Board inform us the Association plans to replace the tile in 2016. We anticipate a useful life of up to 25 years for the tile.



Replacement of tile is often based on discretionary redecorating prior to the tile reaching the end of its useful life.

Tile commonly comes in one of three common vitrified clay floor finish products. Ceramic tile usually has a glazed finish. Porcelain tile is fired at a higher temperature than ceramic tile and is therefore denser and harder. Quarry tile is fired at a lower temperature than ceramic tile and is therefore more porous. We comment on the application process of installing new floor tile to assist Management and the Board in obtaining the best design and replacement proposals in the bid process.

An important criterion in selecting tile is slip resistance. Rest rooms and high traffic areas require high slip resistance. We recommend use of a tile with high slip resistance at Canyon Gate at Cinco Ranch.

Installation of the tiles includes floor layout, application of thinset or thickset (bonding material), installation of tiles and application of grout. The thinset or thickset requires time to set. Typically 24- to 48-hours is sufficient. The final installation step is grouting. Grout is a cementitious material to fill joints between tiles. A damp sponge is then used to remove excess grout. The Board should require the contractor to adhere to all product manufacturers' installation specifications and the above guideline parameters of installation.

Based on the above information, we recommend Canyon Gate at Cinco Ranch anticipate replacement in 2016 and again by 2039. We note this information on Line Item 5.374 of *Reserve Expenditures*. The Association should fund regrouting of the tiles through the operating budget if necessary.



**HVAC Equipment** - The clubhouse heating, ventilating and air conditioning (HVAC) equipment includes the following:

- Three remote condensing units with cooling capacities that range from three- to five-tons each
- Three interior air handling units

These units are original and in fair operational condition. The useful life of residential size units is from 15- to 20-years. We recommend the Association anticipate the replacement of this equipment by 2017 and again by 2036. We include this information on Line Item 5.450 of *Reserve Expenditures*. 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.

**Roof Assemblies, Metal** - The clubhouse roof and guard house roof comprise 43 *squares*<sup>1</sup> of standing seam metal roofing and seven squares of corrugated metal roofing, respectively. In addition, the basketball pavilion roof comprises 60 squares of corrugated metal roofing. The clubhouse and pavilion roofs are original to 1999, the guard house roof is original to 2006, and they are in good overall condition. The useful life of these metal roofs is from 25- to 30-years. We recommend the Association anticipate replacement of the clubhouse and guard house roof assemblies by 2028 and replacement of the pavilion roof assembly by 2029. We note this information on Line Items 5.599 and 5.600 of *Reserve Expenditures*. We recommend replacement with prefinished baked enamel sheet metal. Our estimate of cost includes an allowance for replacement of the gutters and downspouts at the clubhouse.

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



**Walls, Paint Finishes and Repairs** - The clubhouse and guard house include the following surfaces:

- 4,600 square feet of masonry
- 1,550 square feet of stucco
- 600 square feet of wood trim, soffit and fascia

The paint finish is in fair condition and the age was not available at the time of our inspection. We note stains at the paint finish and isolated masonry cracks. Page 5.21 of *Photographs* depicts these conditions. The Association should anticipate paint finishes to the stucco and wood surfaces, and repairs to all the surfaces every 8- to 12-years. Periodic application of a protective finish of paint or stain is an essential maintenance activity to maintain the physical appearance and integrity of these elements.

Based on the condition of the paint finishes, we recommend the Association budget for the following activities by 2020:

- Paint finish applications
- Crack repairs to the stucco as needed
- Replacement of wood as needed
- Partial repointing of up to five percent (5%) of the masonry
- Replacement of sealants as needed

Canyon Gate at Cinco Ranch should budget subsequent applications and associated repairs every 10 years thereafter. We depict this information on Line Item 5.732 of *Reserve Expenditures*. We advise the Association fund interim repairs and touch-up paint finishes through the operating budget as needed.

**Windows and Doors** - The clubhouse and guard house windows and doors comprise approximately 1,000 square feet, are original and are in good overall condition. Construction of the windows and doors at the clubhouse includes the following:

- Wood and aluminum frames

- Dual pane glass
- Fixed windows
- Hinged doors

The useful life of these 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 and aesthetics. Based on these factors, we recommend the Association anticipate replacement of these windows and doors by 2037. We depict this information on Line Item 5.800 of *Reserve Expenditures*.

### **Pool Elements**

**Concrete Deck** - A concrete deck surrounds the pools and comprises approximately 6,850 square feet. The deck is original and in good to fair condition. We note cracks and spalls. Pages 5.22 and 5.23 of *Photographs* depict these conditions. 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. Management and the Board inform us the Association is considering installation of a sealer at the concrete deck. For the purposes of this reserve study, we exclude the additional cost of a sealer application and recommend the Association fund this expense through the operating budget.

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 the Association budget for the following in 2016 and every 10 years thereafter:

- 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.

**Fences, Steel** - The Association maintains approximately 450 linear feet of steel fences at the pool deck. This quantity includes a portion of steel fence atop panelized concrete walls. The fences are original and in good overall condition. We note isolated damage. As mentioned previously, fences of this type have a long useful life but are not maintenance free. Periodic maintenance should include applications of protective paint finish to the steel surfaces and partial replacement of deteriorated sections as needed. 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. We recommend paint applications funded through the operating budget and we anticipate a useful life of up to 35 years for the fences. We recommend the Association anticipate replacement of the pool fences by 2033. We include this information on Line Item 6.400 of *Reserve Expenditures*.

**Mechanical Equipment** - The pool mechanical equipment comprises the following:

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

The pool mechanical equipment is primarily original and in fair condition. 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 the pool mechanical equipment in 2016 and every 15 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 Finishes, Plaster** - The pool wall and floor surfaces have plaster finishes of 4,200 square feet based on the horizontal surface areas. The finishes were replaced in 2010 and are in good to fair 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 finishes and conduct related repairs every 8- to 12-years to maintain the integrity of the pool structures. Removal and replacement provides the opportunity to inspect the pool structures and to allow for partial repairs of the underlying concrete surfaces as needed. We recommend the Association budget for the following by 2022 and every 12 years thereafter:

- Removal and replacement of the 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

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

### **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, December 8, 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.



Catch basin



Damaged and spalled concrete curb



Damaged and spalled concrete curb



Concrete street



Concrete street



Concrete street



Concrete cracks near joint



Concrete cracks at Canyon Gate Boulevard



Concrete damage at Canyon Gate Boulevard



Concrete deterioration at Tall Canyon Drive



Concrete cracks at Canyon Park Drive



Concrete cracks and spalls at Canyon Park Drive



Concrete cracks at Wind Canyon Drive



Chain link fence at south park



Steel fence at north perimeter



Steel fence at cul-de-sac



Corrosion at steel fence

*Note - maintain paint finishes through the operating budget*



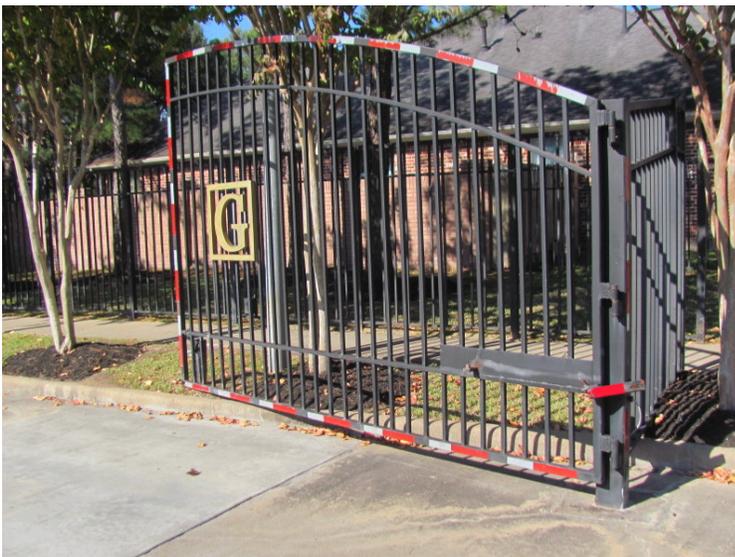
Corrosion at steel fence



Warped boards at wood fence along Canyon Gate Boulevard near Marina Canyon Way



Gate operator and swing arm



Metal gate



Panelized brick wall



Panelized brick wall



Mortar deterioration

*Note - fund for interim repairs and partial replacements through the operating budget*



Efflorescence



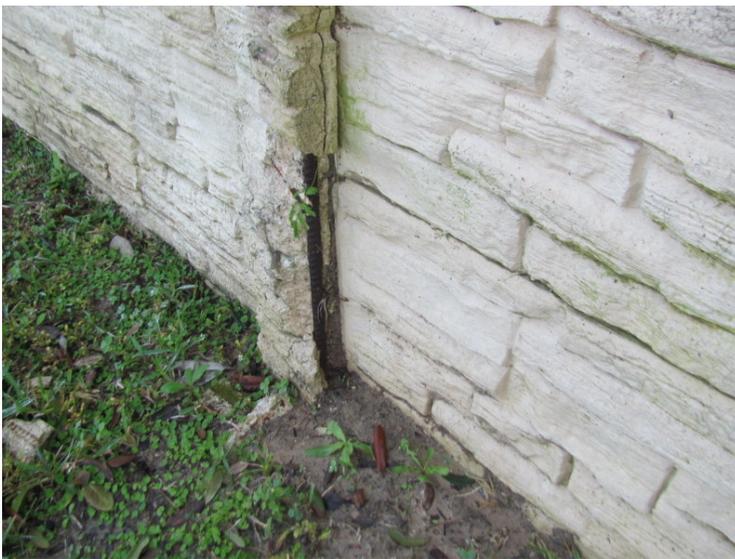
Settled/sagging panel



Loose bricks



Stains at panelized concrete wall



Concrete post deterioration and exposed reinforcement



Concrete post deterioration and exposed reinforcement



Concrete crack



Movement evident at wall



Shifted and cracked concrete panel



Panelized concrete wall with steel fence



Damaged concrete panel



Playground equipment at clubhouse



Rust at playset at clubhouse



Playset at south park



Shade structure at south park



Skate park

*Note - concrete surface is long-lived*



Tennis courts



Blistered and chipped color coat at tennis court



Crack at tennis court



Rust at tennis court light poles



Basketball court at pavilion

*Note - maintain color coat through the operating budget*



Concrete cracks at open basketball court near skate park



Guard house



Clubhouse



Clubhouse



Clubhouse interior



Exercise room



Kitchen

*Note - maintain through the operating budget*



Cracked tiles at clubhouse



Split system condensing units



Standing seam metal roofing at clubhouse



Stains and finish deterioration at clubhouse



Corrugated metal roofing at guard house



Metal roof and light fixtures at basketball court pavilion



Masonry step crack at clubhouse



Minor wood deterioration at clubhouse



Aluminum frame windows at clubhouse



Concrete cracks and spalls at pool deck



Concrete cracks at pool deck



Spalls along coping



Steel and concrete fence panels at pool



Pool mechanical equipment



Pool plaster finish



Shade structure at pool deck

*Note - fund for replacement through the operating budget*



Walking/jogging trail at south park

*Note - maintain through the operating budget*



## 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.

Canyon Gate at Cinco Ranch can fund capital repairs and replacements in any combination of the following:

1. Increases in the operating budget during years when the shortages occur
2. Loans using borrowed capital for major replacement projects
3. Level monthly reserve assessments annually adjusted upward for inflation to increase reserves to fund the expected major future expenditures
4. Special assessments

We do not advocate special assessments or loans unless near term circumstances dictate otherwise. Although loans provide a gradual method of funding a replacement, the costs are higher than if the Association were to accumulate reserves ahead of the actual replacement. Interest earnings on reserves also accumulate in this process of saving or reserving for future replacements, thereby defraying the amount of gradual reserve collections. We advocate the third method of *Level Monthly Reserve Assessments* with relatively minor annual adjustments. The method ensures that Homeowners pay their "fair share" of the weathering and aging of the commonly owned property each year. Level reserve assessments preserve the property and enhance the resale value of the homes.

This Reserve Study is in compliance with and exceeds the National standards<sup>1</sup> set forth by the 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:

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



A Management and Board projected reserve balance as of December 31, 2015 of \$335,000.

The 2016 budgeted Reserve Contributions of \$50,000.

The Cash Flow Method to compute, project and illustrate the 30-year Reserve Funding Plan

Local<sup>2</sup> costs of material, equipment and labor

Current and future costs of replacement for the Reserve Components

Costs of demolition as part of the cost of replacement

Local economic conditions and a historical perspective to arrive at our estimate of long term future inflation for construction costs in Katy, Texas at an annual inflation rate of 3.0%. 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 Canyon Gate at Cinco Ranch 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 1.35% (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 table summarizes rates of inflation and key rates for government securities, generally considered as safe investment alternatives.

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



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 (A)	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%	0.50%
10-Year Treasury Note	2.80%	2.65%	2.40%	2.25%	1.90%	2.50%	2.70%	2.28%
30-Year Treasury Bond	3.90%	3.50%	3.35%	3.00%	2.55%	3.20%	3.40%	3.05%
Consumer Price Index (annualized rate)	1.50%	2.00%	2.40%	2.60%	0.00%	0.00%	0.00%	0.00%
Residential Construction Producer Price Index-Inflation Rate, Bureau of Labor Statistics (Year over Year Oct. 2015 Showing no meaningful change )								-0.3%
Savings Rates Results RANGE as found in <a href="http://www.bankrate.com">http://www.bankrate.com</a>	0.05 to 1.10%		Money Market Savings		0.65 to 1.53%		for 2-Year Certificate of Deposit	
	0.65 to 1.35%		1-Year Certificate of Deposit		0.9 to 1.35%		for 3-Year Certificate of Deposit	
Estimated Near Term Yield Rate for Reserve Savings .....				1.35%				
Est. Near Term Local Inflation Rate for Future Capital Expenditures .....				3.0%				
								<b>11/13/2015</b>

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 Canyon Gate at Cinco Ranch 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) Canyon Gate at Cinco Ranch 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 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. 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 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, Registered in 1982

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



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

**CURRENT CLIENT SERVICES**

Alan M. Ebert, a Professional Engineer, is 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 hundreds 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 2012

*Reserve Specialist (RS)* - Community Associations Institute

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



**MATTHEW P. KSIONZYK, PRA, RS**  
**Associate Director of Quality Assurance**

**CURRENT CLIENT SERVICES**

Matthew P. Ksionzyk, a Civil Engineer, is an Associate Director of Quality Assurance for Reserve Advisors. Mr. Ksionzyk 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. Ksionzyk has been involved with hundreds of Reserve Study assignments. The following is a partial list of clients served by Matthew Ksionzyk demonstrating his breadth of experiential knowledge of community associations in construction and related buildings systems.

**Four Seasons Place** - Located next to Boston Common, this condominium shares many common elements with the Four Seasons Hotel Boston. Built in 1985, this 16-story high-rise building includes 88 unique units with a brick masonry façade, flat roof systems, a health club and a parking garage.

**Saint Mary's Catholic Church** - This Jesuit parish is located in Lancaster, Pennsylvania and includes church/sacristy, rectory and school/convent buildings. Established in 1741, the present-day buildings were built from the mid-19<sup>th</sup> - to early 20<sup>th</sup>-centuries and comprise brick masonry façades and sloped slate and asphalt shingle roofs.

**Azure** - This 32-story high-rise was constructed from 2004 to 2007 and is located in Dallas, Texas. The building exterior comprises concrete balconies, flat roofs, glass/metal curtain walls and a panelized stone masonry façade. The development includes plaza decks, a pool, water features and a five-story subterranean parking garage.

**Skyline Plaza** - Located in northern Virginia, this community includes 957 units in twin 27-story buildings. Constructed from 1972 to 1977, the exteriors comprise concrete balconies, flat roofs and concrete/brick masonry façades. The community includes common social/recreation rooms, a plaza deck, a pool and a four-story parking garage.

**Ronald McDonald House Toronto** - Established in 1981, this Ronald McDonald House provides a "home away from home" for seriously ill children and their families. The current building was constructed from 2009 to 2011 and includes 81 guest suites, the largest of its kind in the world. The four-story building comprises a flat roof, fiber cement siding, brick masonry, extensive interior common areas, a school and playground equipment.

**Linden** - This five-story, mixed-use residential/commercial property is located in Hartford, Connecticut, was constructed from 1892 to 1893, and was converted to a condominium from 1979 to 1981. The development includes a brick and brownstone masonry façade, flat roofs, detached garage buildings, asphalt pavement and an elevated garden.

**Guard Hill** - This townhome-style development is located in Westchester County, New York and consists of 212 units in 45 buildings. The buildings comprise asphalt shingle roofs, wood balconies and wood siding. This community includes private roads, three ponds, tennis and basketball courts, and a pool.

**The Village of Kiln Creek** - Located in southeast Virginia, this large-scale master association is responsible for the common elements shared by 31 subsidiary associations that comprise 2,918 residences. The community was built from 1988 to 2001 and consists of a clubhouse, pools, recreation facilities, maintenance facilities, an administrative office, asphalt walking paths, an irrigation system and lakes.

**PRIOR RELEVANT EXPERIENCE**

Before joining Reserve Advisors, Mr. Ksionzyk attended Clarkson University, in Postdam, New York, where he specialized in Infrastructure Engineering. After college, he was commissioned as an officer in the U.S. Army and served four years on active duty, including a 13-month deployment in support of Operation Iraqi Freedom. While in the Army, Mr. Ksionzyk served as an infantry and a logistical transportation officer.

**EDUCATION**

Clarkson University - B.S. Civil Engineering

**PROFESSIONAL AFFILIATIONS / DESIGNATIONS**

*Engineer In Training (E.I.T.) Registration* - New York 2002

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

*Reserve Specialist (RS)* - Community Associations Institute



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

**CURRENT CLIENT SERVICES**

Stephanie A. Mueller, a Civil Engineer, is an Advisor for Reserve Advisors. Ms. Mueller is responsible for the inspection and analysis of the condition of clients' properties, and recommending engineering solutions to prolong the lives of the components. She also forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. She is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast services on townhomes and planned unit developments.

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

- Caswell Lofts** Situated in lively Austin, Texas, five loft-style buildings comprise 42 condominiums. The buildings comprise brick masonry, fiber cement siding and flat roof assemblies. Homeowners can enjoy the fresh air on the extended open balconies.
- Palazzo Tornabuoni Associazione** Located in the heart of Florence, Italy, this 15<sup>th</sup> century palace includes 38 luxury residences. The ground floor includes upscale retail spaces and a restaurant. The building features many historic details such as the tile roofs and original fresco paintings. Members enjoy the private lounge, sauna and steam room.
- Village at Washington's Landing** This picturesque community on Herra Island overlooks downtown Pittsburgh. The 85 townhomes and 3 single family homes feature asphalt shingle and metal roofs, brick masonry and wood composite siding.
- Carriage Manor RV Resort** This attractive resort in Mesa, Arizona offers 911 recreational vehicle lots. The clubhouse and crafts building feature a banquet hall, billiards room, commercial kitchen and various club rooms. The buildings' exteriors comprise stucco walls, modified bitumen roofs and concrete tile roofs. Located throughout the resort are tennis courts, a pool, golf driving cages, putting greens and a dog park.
- Beechnut Woods** Located in Grafton, Wisconsin, this quaint community comprises 68 townhomes. The buildings feature brick masonry, vinyl siding and asphalt shingle roofs. The development contains a gazebo, pond, retaining walls and concrete flatwork.
- Sonoma Homeowners Association** This expansive community of 1,000 homeowners is located in Round Rock, Texas. Homeowners enjoy the use of two pools, splash area, water slide, playgrounds and a pavilion. Located throughout the property are perimeter fences, ponds and an irrigation system.
- Holly Creek** Located in Plymouth, Minnesota, this inviting community comprises 108 townhomes in 21 buildings. The buildings feature vinyl siding and asphalt shingle roofs. The development includes asphalt driveways and concrete sidewalks.

**PRIOR RELEVANT EXPERIENCE**

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

**EDUCATION**

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

**PROFESSIONAL AFFILIATIONS**

*Engineer In Training (E.I.T.) Registration* - Wisconsin 2009  
*Reserve Specialist (RS)* - Community Associations Institute  
*Professional Engineer (P.E.)* - Wisconsin 2015



**CHRISTOPHER C. DEWALL, PRA, RS**  
**Director of Product Development**

**CURRENT CLIENT SERVICES**

Christopher C. DeWall, a Mechanical Engineer, is a Director for Reserve Advisors. Mr. DeWall is responsible for the inspection and analysis of the property's current condition, recommending engineering solutions to prolong the lives of building components, forecasting capital expenditures for the repair and/or replacement of the property components, and technical report preparation on assignments. He is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast services and the preparation of Reserve Study and Transition Study Reports for high and midrise buildings, country clubs, and townhomes and homeowner associations. Christopher DeWall frequently serves as the Quality Assurance Review Coordinator for all types of developments.

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

**1301 Throckmorton Residences** reside on the top 13 floors of a 33-story building located downtown Fort Worth, Texas. Built in 2009, the building overlooks the Fort Worth Water Gardens and includes a pool and Zen garden atop the Omni Fort Worth Hotel.

**North Beach Condominium Association** consists of 40 townhome units in six buildings situated at the edge of a stunning 115 acre pond in Bethany Beach, Delaware just minutes from the Atlantic Ocean. The development contains a boardwalk, pool house and pool.

**Belfair Property Owners Association** is a private golf community situated on the Belfair Plantation five miles from Hilton Head Island. Magnificent oak trees over one hundred years old line the entrance to this property that dates back to the plantation built in 1811. The community amenities include a recently expanded clubhouse, two 18-hole golf courses, pool and exercise buildings and a state-of-the-art 29 acre practice facility. Belfair offers freshwater lakes, saltwater marshes and South Carolina wildlife.

**Prairie Park at Wheeling Condominium Association** is a midrise community of 240 units in four buildings located in Wheeling, Illinois. The property includes an elaborate waterfall at the entrance to the community and a clubhouse with indoor pool for year round entertainment.

**Crystal Park Unit Owners Association** This 12-story building built in 1985 is located in the Crystal City portion of Alexandria, Virginia. The property includes an elevated pool and pool deck above two floors of parking garage. Unit owners enjoy a majestic view of the runway at Reagan International Airport with the U.S. Capitol Building and Washington Monument rising above the horizon in the background.

**Fieldpoint Community Association** is an upper scale community that consists of 101 townhomes and 63 single family homes in three sub-associations. Located just north of New York City, this development contains a clubhouse, playground and two separate pools.

**Seven Lakes Landowners Association** is a large planned unit development located in West End, North Carolina. The Association consists of 1,507 single family homes and includes a clubhouse, stable, on-site office, maintenance buildings, lakes, ponds, pools, sports courts and approximately 25 miles of roads.

**PRIOR RELEVANT EXPERIENCE**

Before joining Reserve Advisors, Mr. DeWall attended the University of Wisconsin in Madison, Wisconsin where he attained his Bachelor of Science degree in Mechanical Engineering. At the University of Wisconsin, Mr. DeWall helped design and fabricate a wheelchair with a seat capable of raising and lowering to and from the ground. Mr. DeWall is also the proud owner of a patent for a trigger lock on a pressure washer gun he developed while interning at Briggs and Stratton Power Products.

**EDUCATION**

University of Wisconsin - B.S. Mechanical Engineering

**PROFESSIONAL AFFILIATIONS**

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

*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](http://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](http://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](http://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](http://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.

# Reserve Study Update

January 8, 2016

The Reserve Study for Canyon Gate at Cinco Ranch Owners Association, Inc.  
Was submitted on .....January 8, 2016

To maintain the most accurate and cost-effective replacement schedule and funding plan for your property elements, this study should be updated on or about .....**First Quarter, 2018**  
...but no later than.....**First Quarter, 2019**

As a valued client, we are pleased to offer a future reserve study update with site visit for.....**\$2,750**

For a Reserve Study Update with Site visit as noted above.

**This future update fee is based on the same property components that were contained in your last Reserve Advisors' reserve study or update. We are pleased to include property additions for an additional fee.**

To initiate your Reserve Study Update, please sign this authorization and fax or mail to the number below. Upon receipt of this authorization we will contact you to schedule your site visit and invoice for the Reserve Study Update Service.

Sign this contract below and fax to **414-272-3663**. Or mail to  
Reserve Advisors, Inc.  
735 N. Water St., Suite 175  
Milwaukee, WI 53202

Delivery options for your Reserve Study Update Report, Please check one of the following:

- 1-Full color printed copy PLUS Electronic Report, FREE
- 2-Full color printed copies PLUS Electronic Report, \$100

**For: Reserve Advisors, Inc.**

Signature:  \_\_\_\_\_

Jacquie Martin  
Director of Texas Client Services  
Jacque@reserveadvisors.com  
Ref. # 151683  
(800) 221-9882

**For Canyon Gate at Cinco Ranch Owners Association, Inc.**

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

**Agent or Manager:** Bernadette Leaney

**Management Firm:** CCB Property Management