

**Revised**  
**FULL RESERVE STUDY**  
**Circle C**  
**Homeowners Association**



**Austin, Texas**

**Inspected - May 29, 2018**  
**Revised - September 21, 2018**



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Long-term thinking. Everyday commitment.

Circle C Homeowners Association  
Austin, Texas

Dear Board of Directors of Circle C Homeowners Association:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Full Reserve Study* of Circle C Homeowners Association in Austin, Texas and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, May 29, 2018.

This *Full Reserve Study* exceeds the Association of Professional Reserve Analysts (APRA) standards fulfilling the requirements of a "Level I Full Reserve Study."

An ongoing review by the Board and an Update of this Reserve Study are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in time. We recommend the Board budget for an Update to this Reserve Study in two years. We look forward to continuing to help Circle C Homeowners Association plan for a successful future.

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

Respectfully submitted on September 21, 2018 by

*Reserve Advisors, Inc.*

Visual Inspection and Report by: Andrew L. Stoutenburg, RS<sup>1</sup>

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



<sup>1</sup> RS (Reserve Specialist) is the reserve provider professional designation of the Community Associations Institute (CAI) representing America's more than 300,000 condominium, cooperative and homeowners associations.

<sup>2</sup> PRA (Professional Reserve Analyst) is the professional designation of the Association of Professional Reserve Analysts. Learn more about APRA at <http://www.apra-usa.com>.



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# 1. RESERVE STUDY EXECUTIVE SUMMARY

**Client:** Circle C Homeowners Association (Circle C)

**Location:** Austin, Texas

**Reference:** 172223

**Property Basics:** Circle C Homeowners Association is a planned unit development which is responsible for the common elements shared by 5,464 single family homes. The development began construction in 1988 and is ongoing.

**Reserve Components Identified:** 83 Reserve Components.

**Inspection Date:** May 29, 2018.

**Funding Goal:** The Funding Goal of this Reserve Study is to maintain reserves above an adequate, not excessive threshold during one or more years of significant expenditures. Our recommended Funding Plan recognizes these threshold funding years in 2023 and 2048 due to ongoing irrigation system replacement and rebuilding of the swim center pool structure.

**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
- 1.7% anticipated annual rate of return on invested reserves
- 3.4% future Inflation Rate for estimating Future Replacement Costs

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

**Cash Status of Reserve Fund:**

- \$708,732 as of March 31, 2018
- The Association did not budget Reserve Contributions in 2018.

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

- Evaluation of the irrigation system and the beginning of ongoing phased replacement

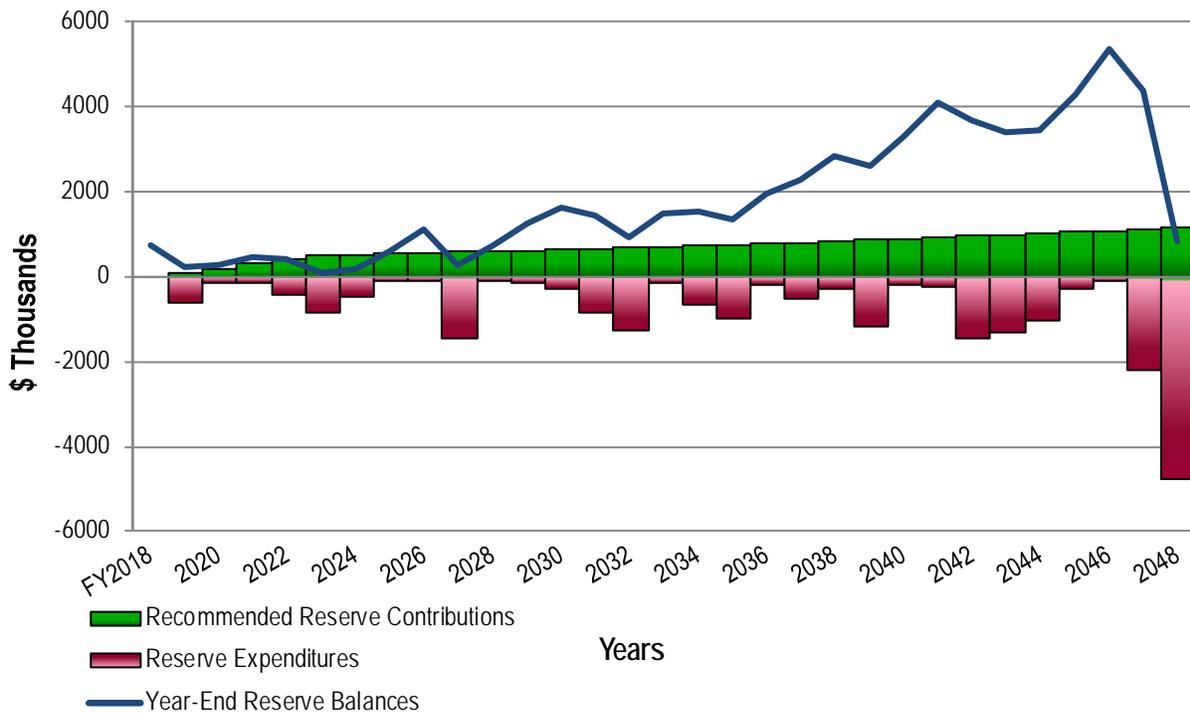
**Recommended Reserve Funding:** We recommend the following in order to achieve a stable and equitable Funding Plan:

- Phased increases of \$101,000 from 2019 through 2023
- Inflationary increases through 2048, the limit of this study's Cash Flow Analysis
- Initial adjustment in Reserve Contributions of \$101,000 represents an average monthly increase of \$1.54 per homeowner and about a three percent (2.5%) adjustment in the 2018 total Operating Budget of \$4,028,490.



**Circle C**  
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2019	101,000	205,265	2029	617,300	1,247,656	2039	862,300	2,587,440
2020	202,000	286,298	2030	638,300	1,621,842	2040	891,600	3,325,706
2021	303,000	443,640	2031	660,000	1,447,746	2041	921,900	4,090,422
2022	404,000	427,788	2032	682,400	903,934	2042	953,200	3,670,324
2023	505,000	102,734	2033	705,600	1,468,083	2043	985,600	3,403,075
2024	522,200	172,585	2034	729,600	1,547,782	2044	1,019,100	3,444,487
2025	540,000	622,218	2035	754,400	1,356,078	2045	1,053,700	4,278,885
2026	558,400	1,102,235	2036	780,000	1,974,631	2046	1,089,500	5,372,406
2027	577,400	259,660	2037	806,500	2,281,782	2047	1,126,500	4,396,958
2028	597,000	756,718	2038	833,900	2,857,127	2048	1,164,800	845,024





## 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

**Circle C Homeowners Association**

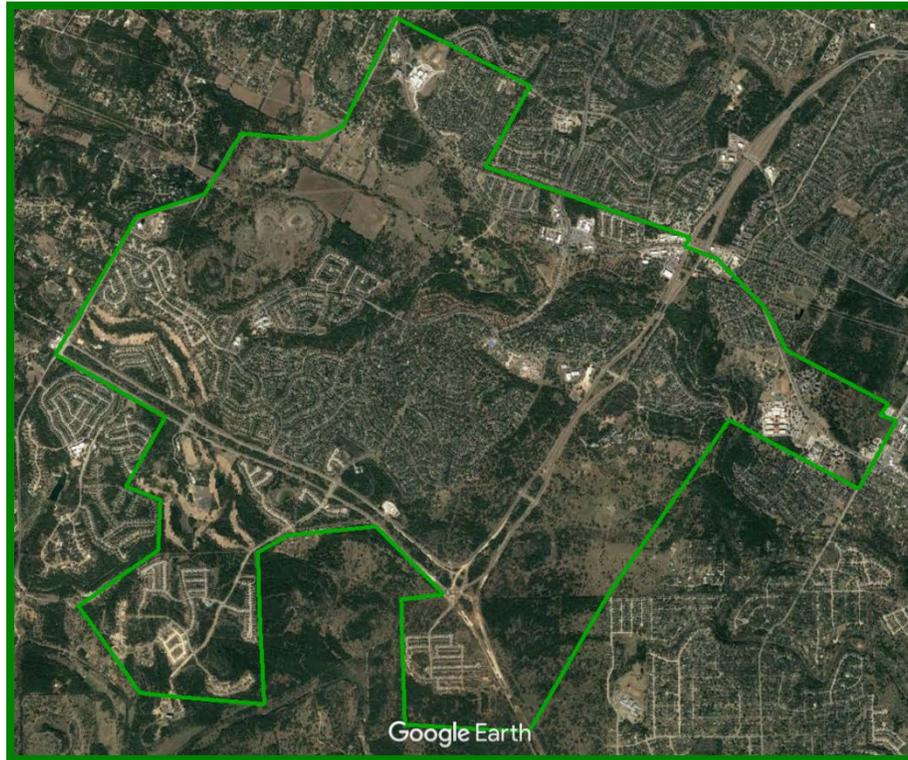
**Austin, Texas**

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, May 29, 2018.

We present our findings and recommendations in the following report sections and spreadsheets:

- **Identification of Property** - Segregates all property into several areas of responsibility for repair or replacement
- **Reserve Expenditures** - Identifies reserve components and related quantities, useful lives, remaining useful lives and future reserve expenditures during the next 30 years
- **Reserve Funding Plan** - Presents the recommended Reserve Contributions and year-end Reserve Balances for the next 30 years
- **Reserve Component Detail** - Describes the reserve components, includes photographic documentation of the condition of various property elements, describes our recommendations for repairs or replacement, and includes detailed solutions and procedures for replacements for the benefit of current and future board members
- **Methodology** - Lists the national standards, methods and procedures used to develop the Reserve Study
- **Definitions** - Contains definitions of terms used in the Reserve Study, consistent with national standards
- **Professional Service Conditions** - Describes Assumptions and Professional Service Conditions
- **Credentials and Resources**

## IDENTIFICATION OF PROPERTY



Our investigation includes Reserve Components or property elements as set forth in your Declaration. The Expenditure tables in Section 3 list the elements contained in this study. Our analysis begins by segregating the property elements into several areas of responsibility for repair and replacement.

Our process of identification helps assure that future boards and the management team understand whether reserves, the operating budget or Homeowners fund certain replacements and assists in preparation of the annual budget. We derive these segregated classes of property from our review of the information provided by the Association and through conversations with Management. These classes of property include:

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

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

Long-Lived Property Elements may not have predictable Remaining Useful Lives or their replacement may occur beyond the 30-year scope of the study. The operating budget should fund infrequent repairs. Funding untimely or unexpected replacements from reserves will necessitate increases to Reserve Contributions. Periodic updates of this Reserve Study will help determine the merits of adjusting the Reserve Funding Plan. We identify the following Long-Lived Property Elements as excluded from reserve funding at this time.

- Electrical Systems, Common
- Foundations, Common
- Pipes, Interior Building, Common
- Pipes, Subsurface Utilities
- Pool Structures, Avana, Community Center and Grey Rock
- Structural Frames, Common
- Windows and Doors, Avana, Community Center and Grey Rock

The operating budget provides money for the repair and replacement of certain Reserve Components. The Association may develop independent criteria for use of operating and reserve funds. For purposes of calculating appropriate Reserve Contributions, we identify the following list of Operating Budget Funded Repairs and Replacements:

- General Maintenance to the Common Elements
- Expenditures less than \$10,000 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Awning, Community Center
- Basketball Court Renovations
- Concrete Flatwork
- Drainage Areas, Community Center
- Interior Renovations, Maintenance Building
- Landscape, Maintenance
- Landscape, Replacement
- Landscape, Tree Pruning
- Lane Lines, Swim Center
- Lifeguard Room, Community Center, Renovations
- Outdoor Shower, Community Center
- Paint Finishes, Touch Up
- Plaster Finishes, Splash Pads, Interim
- Pool Furniture, Per Management
- Pumps, Pools
- Retaining Walls
- Signage, Street and Traffic, Per Management

- Site Furniture
- Thru-wall Heating, Ventilating and Air Conditioning (HVAC) Units
- Valves, Small Diameter, Irrigation (We assume replacement as needed in lieu of an aggregate replacement of all small diameter valves as a single event.)
- Water Heaters
- Webbing, Splash Pad, Community Center
- Other Repairs normally funded through the Operating Budget

Certain items have been designated as the responsibility of the homeowners to repair or replace at their cost. Property Maintained by Homeowners, including items billed back to Homeowners, relates to unit:

- Fences and Perimeter Walls Adjacent to Lots
- Homes and Lots

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

- Asphalt Pavement Street System (Municipality)
- Café Equipment (Leased)
- Mailbox Cluster Units (United States Postal Service)
- Ponds and Drainage Areas (Excluding at the Community Center) (Municipality)

### **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
- 2018 local cost of replacement
  - Per unit
  - Per phase
  - Replacement of total quantity
- Total future costs of replacement anticipated during the next 30 years
- Schedule of estimated future costs for each reserve component including inflation

#### **Reserve Funding Plan**

- Reserves at the beginning of each year
- Total recommended reserve contributions
- Estimated interest earned from invested reserves
- Anticipated expenditures by year
- Anticipated reserves at year end

Financial statements prepared by your association, by you or others might rely in part on information contained in this section. For your convenience, we have provided an electronic data file containing the tables of ***Reserve Expenditures*** and ***Reserve Funding Plan***.

# RESERVE EXPENDITURES

**Circle C**  
**Homeowners Association**  
 Austin, Texas

**Explanatory Notes:**

- 1) **3.4%** is the estimated future Inflation Rate for estimating Future Replacement Costs.
- 2) FY2018 is Fiscal Year beginning January 1, 2018 and ending December 31, 2018.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$				RUL = 0 FY2018	1 2019	2 2020	3 2021	4 2022	5 2023	6 2024	7 2025	8 2026	9 2027	10 2028	11 2029	12 2030	13 2031	14 2032	15 2033
						Useful	Remaining	Unit (2018)	Per Phase (2018)	Total (2018)	30-Year Total (Inflated)																
<b>Exterior Building Elements</b>																											
1.153	1,150	1,150	Square Feet	Deck, Composite, Community Center	2034	20 to 25	16	18.00	20,700	20,700	35,343																
1.460	30	30	Squares	Roofs, Metal, Avana	2044	to 30	26	520.00	15,600	15,600	37,210																
1.462	20	20	Squares	Roof, Metal, Grey Rock	2047	to 30	29	520.00	10,400	10,400	27,424																
1.463	10	10	Squares	Roofs, Metal, Swim Center, Lifeguard & Café	2023	to 30	5	710.00	7,100	7,100	8,392						8,392										
1.464	20	20	Squares	Roofs, Metal, Swim Center, Rest Rooms	2039	to 30	21	520.00	10,400	10,400	20,988																
1.531	12,120	12,120	Square Feet	Roofs, Thermoplastic, Community Center	2027	15 to 20	9	8.75	106,050	106,050	379,877									143,283							
1.533	1,820	1,820	Square Feet	Roofs, Thermoplastic, Swim Center, Mechanical & Maintenance	2026	15 to 20	8	9.50	17,290	17,290	63,833								22,592								
1.760	1	1	Allowance	Walls, Paint Finishes	2020	8 to 10	2	25,000.00	25,000	25,000	166,922			26,729											34,926		
1.800	11,150	11,150	Square Feet	Walls, Masonry, Inspections and Repairs	2020	8 to 10	2	1.00	11,150	11,150	74,448			11,921											15,577		
1.983	330	330	Square Feet	Windows and Doors, Swim Center	2032	to 40	14	37.00	12,210	12,210	19,499																19,499
<b>Interior Building Elements</b>																											
2.501	1	1	Allowance	Interior, Renovation, Complete, Community Center	2032	to 20	14	154,000.00	154,000	154,000	245,928																245,928
2.503	1	1	Allowance	Interior, Renovation, Complete, Swim Center	2032	to 20	14	30,000.00	30,000	30,000	47,908																47,908
2.511	1	1	Each	Interior, Renovation, Partial, Community Center	2022	to 10	4	43,000.00	43,000	43,000	145,085					49,153											
2.513	1	1	Each	Interior, Renovation, Partial, Swim Center	2022	to 10	4	15,000.00	15,000	15,000	50,610					17,146											
2.900	2	2	Each	Rest Rooms, Pool Area, Renovation, Avana	2034	to 20	16	10,500.00	21,000	21,000	35,855																
2.901	2	2	Each	Rest Rooms, Pool Area, Renovation, Community Center	2032	to 20	14	12,500.00	25,000	25,000	39,923																39,923
2.902	2	2	Each	Rest Rooms, Pool Area, Renovation, Grey Rock	2037	to 20	19	9,000.00	18,000	18,000	33,975																
2.903	2	2	Each	Rest Rooms, Pool Area, Renovation, Swim Center	2030	to 20	12	24,500.00	49,000	49,000	73,188														73,188		
<b>Building Services Elements</b>																											
3.061	1	1	Each	Air Handling Unit, Rooftop Heating and Cooling Unit, 5-tons, Community Center	2032	15 to 20	14	8,500.00	8,500	8,500	13,574																13,574
3.062	1	1	Each	Air Handling Unit, Rooftop Heating and Cooling Unit, Swim Center	2026	15 to 20	8	6,000.00	6,000	6,000	23,141								7,840								
3.063	1	1	Each	Air Handling Unit, Packaged Cooling Unit, 2-tons, Swim Center	2026	15 to 20	8	6,000.00	6,000	6,000	23,141								7,840								
3.071	5	5	Each	Air Handling and Condensing Units, Split Systems, Community Center	2032	15 to 20	14	7,000.00	35,000	35,000	55,893															55,893	
3.820	2	1	Allowance	Security System, Avana, Phased	2021	to 15	3 to 10	6,000.00	6,000	12,000	38,994				6,633									8,382			
3.821	2	1	Allowance	Security System, Community Center, Phased	2019	to 15	1 to 8	11,000.00	11,000	22,000	95,870		11,374							14,373							18,164
3.822	2	1	Allowance	Security System, Grey Rock, Phased	2024	to 15	6 to 13	5,500.00	5,500	11,000	39,515							6,722							8,494		
3.823	2	1	Allowance	Security System, Swim Center, Phased	2019	to 15	1 to 8	9,000.00	9,000	18,000	78,439		9,306						11,760								14,861
<b>Property Site Elements</b>																											
4.020	10,900	10,900	Square Yards	Asphalt Pavement, Crack Repair, Patch and Seal Coat	2020	3 to 5	2	1.50	16,350	16,350	233,955			17,481				19,982						22,841		26,110	
4.040	7,550	7,550	Square Yards	Asphalt Pavement, Remaining, Mill and Overlay	2032	15 to 20	14	15.50	117,025	117,025	186,881																186,881
4.041	3,350	3,350	Square Yards	Asphalt Pavement, Swim Center, Mill and Overlay	2024	15 to 20	6	15.50	51,925	51,925	187,314								63,460								
4.245	2,780	927	Linear Feet	Fences, Steel, Phased	2020	to 35	2 to 22	58.00	53,747	161,240	249,894				57,464										80,279		
4.285	1,830	1,830	Linear Feet	Fences, Wood	2025	15 to 20	7	38.00	69,540	69,540	259,388								87,878								
4.420	4,100,000	410,000	Square Feet	Irrigation System, Partial	2019	to 40	1 to 30+	1.30	533,000	5,330,000	7,376,016		551,122				629,985			720,132					823,179		
4.540	2	2	Each	Lift Station, Pumps, Community Center	2022	to 10	4	5,200.00	10,400	10,400	28,496					11,888											16,608
4.550	1	1	Each	Lift Station, Rebuild, Community Center	2042	to 30	24	30,000.00	30,000	30,000	66,929																
4.560	17	17	Each	Light Poles and Fixtures (2019 are Swim Center Fixtures)	2019	to 25	1	4,900.00	83,300	83,300	177,230		20,000														
4.562	70	70	Each	Light Fixtures, Bollards	2029	to 25	11	800.00	56,000	56,000	80,894													80,894			

# RESERVE EXPENDITURES

**Circle C  
Homeowners Association  
Austin, Texas**

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$				16 2034	17 2035	18 2036	19 2037	20 2038	21 2039	22 2040	23 2041	24 2042	25 2043	26 2044	27 2045	28 2046	29 2047	30 2048		
						Useful	Remaining	Unit (2018)	Per Phase (2018)	Total (2018)	30-Year Total (Inflated)																	
<b>Exterior Building Elements</b>																												
1.153	1,150	1,150	Square Feet	Deck, Composite, Community Center	2034	20 to 25	16	18.00	20,700	20,700	35,343	35,343																
1.460	30	30	Squares	Roofs, Metal, Avana	2044	to 30	26	520.00	15,600	15,600	37,210											37,210						
1.462	20	20	Squares	Roof, Metal, Grey Rock	2047	to 30	29	520.00	10,400	10,400	27,424															27,424		
1.463	10	10	Squares	Roofs, Metal, Swim Center, Lifeguard & Café	2023	to 30	5	710.00	7,100	7,100	8,392																	
1.464	20	20	Squares	Roofs, Metal, Swim Center, Rest Rooms	2039	to 30	21	520.00	10,400	10,400	20,988					20,988												
1.531	12,120	12,120	Square Feet	Roofs, Thermoplastic, Community Center	2027	15 to 20	9	8.75	106,050	106,050	379,877							236,594										
1.533	1,820	1,820	Square Feet	Roofs, Thermoplastic, Swim Center, Mechanical & Maintenance	2026	15 to 20	8	9.50	17,290	17,290	63,833															41,241		
1.760	1	1	Allowance	Walls, Paint Finishes	2020	8 to 10	2	25,000.00	25,000	25,000	166,922			45,636												59,631		
1.800	11,150	11,150	Square Feet	Walls, Masonry, Inspections and Repairs	2020	8 to 10	2	1.00	11,150	11,150	74,448			20,354												26,596		
1.983	330	330	Square Feet	Windows and Doors, Swim Center	2032	to 40	14	37.00	12,210	12,210	19,499																	
<b>Interior Building Elements</b>																												
2.501	1	1	Allowance	Interior, Renovation, Complete, Community Center	2032	to 20	14	154,000.00	154,000	154,000	245,928																	
2.503	1	1	Allowance	Interior, Renovation, Complete, Swim Center	2032	to 20	14	30,000.00	30,000	30,000	47,908																	
2.511	1	1	Each	Interior, Renovation, Partial, Community Center	2022	to 10	4	43,000.00	43,000	43,000	145,085								95,932									
2.513	1	1	Each	Interior, Renovation, Partial, Swim Center	2022	to 10	4	15,000.00	15,000	15,000	50,610									33,464								
2.900	2	2	Each	Rest Rooms, Pool Area, Renovation, Avana	2034	to 20	16	10,500.00	21,000	21,000	35,855	35,855																
2.901	2	2	Each	Rest Rooms, Pool Area, Renovation, Community Center	2032	to 20	14	12,500.00	25,000	25,000	39,923																	
2.902	2	2	Each	Rest Rooms, Pool Area, Renovation, Grey Rock	2037	to 20	19	9,000.00	18,000	18,000	33,975				33,975													
2.903	2	2	Each	Rest Rooms, Pool Area, Renovation, Swim Center	2030	to 20	12	24,500.00	49,000	49,000	73,188																	
<b>Building Services Elements</b>																												
3.061	1	1	Each	Air Handling Unit, Rooftop Heating and Cooling Unit, 5-tons, Community Center	2032	15 to 20	14	8,500.00	8,500	8,500	13,574																	
3.062	1	1	Each	Air Handling Unit, Rooftop Heating and Cooling Unit, Swim Center	2026	15 to 20	8	6,000.00	6,000	6,000	23,141																15,301	
3.063	1	1	Each	Air Handling Unit, Packaged Cooling Unit, 2-tons, Swim Center	2026	15 to 20	8	6,000.00	6,000	6,000	23,141																15,301	
3.071	5	5	Each	Air Handling and Condensing Units, Split Systems, Community Center	2032	15 to 20	14	7,000.00	35,000	35,000	55,893																	
3.820	2	1	Allowance	Security System, Avana, Phased	2021	to 15	3 to 10	6,000.00	6,000	12,000	38,994		10,593							13,386								
3.821	2	1	Allowance	Security System, Community Center, Phased	2019	to 15	1 to 8	11,000.00	11,000	22,000	95,870							22,953									29,006	
3.822	2	1	Allowance	Security System, Grey Rock, Phased	2024	to 15	6 to 13	5,500.00	5,500	11,000	39,515					10,734								13,565				
3.823	2	1	Allowance	Security System, Swim Center, Phased	2019	to 15	1 to 8	9,000.00	9,000	18,000	78,439							18,780									23,732	
<b>Property Site Elements</b>																												
4.020	10,900	10,900	Square Yards	Asphalt Pavement, Crack Repair, Patch and Seal Coat	2020	3 to 5	2	1.50	16,350	16,350	233,955			29,846				34,117								38,999		44,579
4.040	7,550	7,550	Square Yards	Asphalt Pavement, Remaining, Mill and Overlay	2032	15 to 20	14	15.50	117,025	117,025	186,881																	
4.041	3,350	3,350	Square Yards	Asphalt Pavement, Swim Center, Mill and Overlay	2024	15 to 20	6	15.50	51,925	51,925	187,314															123,854		
4.245	2,780	927	Linear Feet	Fences, Steel, Phased	2020	to 35	2 to 22	58.00	53,747	161,240	249,894							112,151										
4.285	1,830	1,830	Linear Feet	Fences, Wood	2025	15 to 20	7	38.00	69,540	69,540	259,388															171,510		
4.420	4,100,000	410,000	Square Feet	Irrigation System, Partial	2019	to 40	1 to 30+	1.30	533,000	5,330,000	7,376,016		940,971			1,075,619						1,229,534					1,405,474	
4.540	2	2	Each	Lift Station, Pumps, Community Center	2022	to 10	4	5,200.00	10,400	10,400	28,496																	
4.550	1	1	Each	Lift Station, Rebuild, Community Center	2042	to 30	24	30,000.00	30,000	30,000	66,929									66,929								
4.560	17	17	Each	Light Poles and Fixtures (2019 are Swim Center Fixtures)	2019	to 25	1	4,900.00	83,300	83,300	177,230				157,230													
4.562	70	70	Each	Light Fixtures, Bollards	2029	to 25	11	800.00	56,000	56,000	80,894																	

## RESERVE EXPENDITURES

**Circle C**  
**Homeowners Association**  
 Austin, Texas

**Explanatory Notes:**

- 1) **3.4%** is the estimated future Inflation Rate for estimating Future Replacement Costs.
- 2) FY2018 is Fiscal Year beginning January 1, 2018 and ending December 31, 2018.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$				RUL = 0 FY2018	1 2019	2 2020	3 2021	4 2022	5 2023	6 2024	7 2025	8 2026	9 2027	10 2028	11 2029	12 2030	13 2031	14 2032	15 2033
						Useful	Remaining	Unit (2018)	Per Phase (2018)	Total (2018)	30-Year Total (Inflated)																
4.564	400	100	Each	Light Fixtures, Landscape and Miscellaneous, Phased	2022	to 25	4 to 19	250.00	25,000	100,000	215,388					28,577				33,777							39,923
4.600	39	7	Each	Mailbox Stations, Capital Repairs (Roofs and Masonry Repairs), Phased	2021	to 30	3 to 28	1,700.00	11,050	66,300	115,914				12,216				14,439							17,066	
4.601	1	1	Allowance	Pipes, Pool Backwash, Swim Center	2024	N/A	6	30,000.00	30,000	30,000	36,664							36,664									
4.660	1	1	Allowance	Playground Equipment, Avana	2034	15 to 20	16	10,000.00	10,000	10,000	17,074																
4.662	1	1	Allowance	Playground Equipment, Grey Rock	2037	15 to 20	19	15,000.00	15,000	15,000	28,313																
4.663	1	1	Allowance	Playground Equipment, Park Place	2032	15 to 20	14	15,000.00	15,000	15,000	23,954															23,954	
4.664	1	1	Allowance	Playground Equipment, Swim Center	2030	15 to 20	12	50,000.00	50,000	50,000	74,682													74,682			
4.665	1	1	Allowance	Playground Equipment, Wildflower Park	2027	15 to 20	9	50,000.00	50,000	50,000	199,401									67,555							
4.666	1	1	Allowance	Playground Equipment, Vintage Place Park	2027	15 to 20	9	25,000.00	25,000	25,000	99,700									33,777							
4.699	2	2	Each	Pumps, Submersible, Drainage Area, Community Center	2027	15 to 20	9	5,000.00	10,000	10,000	35,821									13,511							
4.701	2	2	Each	Shade Structures, Wildflower and Vintage Place Parks	2022	to 15	4	11,000.00	22,000	22,000	66,673					25,148											
4.800	1	1	Allowance	Signage, Renovation, Entrance Monuments (2019 is Slaughter Ln. & Escarpment Blvd.)	2019	15 to 20	1	63,000.00	63,000	63,000	237,566		25,000			72,015											
4.901	2	2	Each	Vehicles	2027	to 10	9	29,000.00	58,000	58,000	340,780									78,363							
<b>Pool Elements</b>																											
6.103	1,400	1,400	Square Feet	Artificial Turf, Swim Center	2028	to 10	10	8.50	11,900	11,900	72,296															16,625	
6.200	6,340	6,340	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs, Avana	2024	8 to 12	6	1.00	6,340	6,340	33,695							7,748									
6.201	8,840	8,840	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs, Community Center	2022	8 to 12	4	1.00	8,840	8,840	43,944					10,105										14,117	
6.202	4,190	4,190	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs, Grey Rock	2027	8 to 12	9	1.00	4,190	4,190	24,619									5,661							
6.203	12,920	12,920	Square Feet	Concrete and Paver Deck, Inspections, Partial Replacements and Repairs, Swim Center	2022	8 to 12	4	3.50	45,220	45,220	224,788					51,691										72,213	
6.303	12,464	2,077	Square Feet	Cover, Vinyl, Swim Center, Phased	2019	6 to 8	1 to 6	3.50	7,271	43,624	381,768		7,518	7,773	8,038	8,311	8,594	8,886	9,188	9,500	9,823	10,157	10,503	10,860	11,229	11,611	12,006
6.400	420	420	Linear Feet	Fence, Steel, Avana	2044	to 35	26	61.00	25,620	25,620	61,110																
6.401	840	840	Linear Feet	Fences and Railings, Steel, Community Center	2042	to 35	24	52.00	43,680	43,680	97,449																
6.402	390	390	Linear Feet	Fence, Steel, Grey Rock	2047	to 35	29	61.00	23,790	23,790	62,732																
6.403	1,410	470	Linear Feet	Fences, Steel, Swim Center, Phased	2022	to 35	4 to 14	61.00	28,670	86,010	117,293					32,773					38,736					45,784	
6.601	1	1	Allowance	Mechanical Equipment, Filters, Community Center	2027	to 15	9	25,000.00	25,000	25,000	89,551									33,777							
6.603	1	1	Allowance	Mechanical Equipment, Filters, Swim Center	2023	to 15	5	35,000.00	35,000	35,000	109,678						41,369										
6.604	1	1	Allowance	Mechanical Equipment, Heaters, Swim Center	2021	to 20	3	80,000.00	80,000	80,000	261,050					88,441											
6.609	4	1	Allowance	Mechanical Equipment, Remaining, Phased	2021	to 15	3 to 12	33,000.00	33,000	132,000	597,005					36,482		40,331		44,586			49,290			54,491	
6.800	4,490	4,490	Square Feet	Pool Finish, Plaster, Avana	2024	8 to 12	6	12.00	53,880	53,880	286,359							65,849									
6.801	490	490	Linear Feet	Pool Finish, Tile, Avana	2034	15 to 25	16	42.00	20,580	20,580	35,138																
6.802	6,610	6,610	Square Feet	Pool Finish, Plaster, Community Center	2022	8 to 12	4	12.00	79,320	79,320	394,299					90,670										126,669	
6.803	680	680	Linear Feet	Pool Finish, Tile, Community Center	2032	15 to 25	14	42.00	28,560	28,560	45,608															45,608	
6.804	2,390	2,390	Square Feet	Pool Finish, Plaster, Grey Rock	2023	8 to 12	5	12.00	28,680	28,680	147,416						33,899									47,357	
6.805	210	210	Linear Feet	Pool Finish, Tile, Grey Rock	2033	15 to 25	15	42.00	8,820	8,820	14,564															14,564	
6.806	13,980	13,980	Square Feet	Pool Finish, Plaster, Swim Center	2024	8 to 12	6	12.00	167,760	167,760	891,606							205,027									
6.807	2,750	2,750	Linear Feet	Pool Finish, Tile, Swim Center (Incl. Lane Lines)	2034	15 to 25	16	32.00	88,000	88,000	150,249																
6.870	3	3	Each	Shade Structures, Avana	2029	to 15	11	5,800.00	17,400	17,400	66,638													25,135			
6.871	9	9	Each	Shade Structure, Community Center	2027	to 15	9	6,500.00	58,500	58,500	209,551									79,039							
6.872	3	3	Each	Shade Structure, Grey Rock	2032	to 15	14	5,800.00	17,400	17,400	73,669															27,787	
6.873	10	10	Each	Shade Structure, Swim Center (Incl. Playground)	2023	to 15	5	7,000.00	70,000	70,000	219,355						82,737										
6.899	8	8	Each	Diving Platforms, Swim Center	2027	to 10	9	3,100.00	24,800	24,800	145,712									33,507							
6.903	13,980	13,980	Square Feet	Structure and Deck, Total Replacement, Swim Center	2048	to 60	30	120.00	1,677,600	1,677,600	4,574,089																

# RESERVE EXPENDITURES

## Circle C Homeowners Association Austin, Texas

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$				16 2034	17 2035	18 2036	19 2037	20 2038	21 2039	22 2040	23 2041	24 2042	25 2043	26 2044	27 2045	28 2046	29 2047	30 2048	
						Useful	Remaining	Unit (2018)	Per Phase (2018)	Total (2018)	30-Year Total (Inflated)																
4.564	400	100	Each	Light Fixtures, Landscape and Miscellaneous, Phased	2022	to 25	4 to 19	250.00	25,000	100,000	215,388				47,188											65,923	
4.600	39	7	Each	Mailbox Stations, Capital Repairs (Roofs and Masonry Repairs), Phased	2021	to 30	3 to 28	1,700.00	11,050	66,300	115,914			20,171				23,842							28,180		
4.601	1	1	Allowance	Pipes, Pool Backwash, Swim Center	2024	N/A	6	30,000.00	30,000	30,000	36,664																
4.660	1	1	Allowance	Playground Equipment, Avana	2034	15 to 20	16	10,000.00	10,000	10,000	17,074	17,074															
4.662	1	1	Allowance	Playground Equipment, Grey Rock	2037	15 to 20	19	15,000.00	15,000	15,000	28,313				28,313												
4.663	1	1	Allowance	Playground Equipment, Park Place	2032	15 to 20	14	15,000.00	15,000	15,000	23,954																
4.664	1	1	Allowance	Playground Equipment, Swim Center	2030	15 to 20	12	50,000.00	50,000	50,000	74,682																
4.665	1	1	Allowance	Playground Equipment, Wildflower Park	2027	15 to 20	9	50,000.00	50,000	50,000	199,401														131,846		
4.666	1	1	Allowance	Playground Equipment, Vintage Place Park	2027	15 to 20	9	25,000.00	25,000	25,000	99,700														65,923		
4.699	2	2	Each	Pumps, Submersible, Drainage Area, Community Center	2027	15 to 20	9	5,000.00	10,000	10,000	35,821								22,310								
4.701	2	2	Each	Shade Structures, Wildflower and Vintage Place Parks	2022	to 15	4	11,000.00	22,000	22,000	66,673				41,525												
4.800	1	1	Allowance	Signage, Renovation, Entrance Monuments (2019 is Slaughter Ln. & Escarpment Blvd.)	2019	15 to 20	1	63,000.00	63,000	63,000	237,566								140,551								
4.901	2	2	Each	Vehicles	2027	to 10	9	29,000.00	58,000	58,000	340,780				109,476										152,941		
<b>Pool Elements</b>																											
6.103	1,400	1,400	Square Feet	Artificial Turf, Swim Center	2028	to 10	10	8.50	11,900	11,900	72,296				23,225											32,446	
6.200	6,340	6,340	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs, Avana	2024	8 to 12	6	1.00	6,340	6,340	33,695	10,825													15,122		
6.201	8,840	8,840	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs, Community Center	2022	8 to 12	4	1.00	8,840	8,840	43,944								19,722								
6.202	4,190	4,190	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs, Grey Rock	2027	8 to 12	9	1.00	4,190	4,190	24,619				7,909										11,049		
6.203	12,920	12,920	Square Feet	Concrete and Paver Deck, Inspections, Partial Replacements and Repairs, Swim Center	2022	8 to 12	4	3.50	45,220	45,220	224,788								100,884								
6.303	12,464	2,077	Square Feet	Cover, Vinyl, Swim Center, Phased	2019	6 to 8	1 to 6	3.50	7,271	43,624	381,768	12,414	12,836	13,272	13,723	14,190	14,673	15,171	15,687	16,221	16,772	17,342	17,932	18,542	19,172	19,824	
6.400	420	420	Linear Feet	Fence, Steel, Avana	2044	to 35	26	61.00	25,620	25,620	61,110														61,110		
6.401	840	840	Linear Feet	Fences and Railings, Steel, Community Center	2042	to 35	24	52.00	43,680	43,680	97,449									97,449							
6.402	390	390	Linear Feet	Fence, Steel, Grey Rock	2047	to 35	29	61.00	23,790	23,790	62,732														62,732		
6.403	1,410	470	Linear Feet	Fences, Steel, Swim Center, Phased	2022	to 35	4 to 14	61.00	28,670	86,010	117,293																
6.601	1	1	Allowance	Mechanical Equipment, Filters, Community Center	2027	to 15	9	25,000.00	25,000	25,000	89,551									55,774							
6.603	1	1	Allowance	Mechanical Equipment, Filters, Swim Center	2023	to 15	5	35,000.00	35,000	35,000	109,678				68,309												
6.604	1	1	Allowance	Mechanical Equipment, Heaters, Swim Center	2021	to 20	3	80,000.00	80,000	80,000	261,050								172,609								
6.609	4	1	Allowance	Mechanical Equipment, Remaining, Phased	2021	to 15	3 to 12	33,000.00	33,000	132,000	597,005			60,240		66,596				73,622			81,390		89,977		
6.800	4,490	4,490	Square Feet	Pool Finish, Plaster, Avana	2024	8 to 12	6	12.00	53,880	53,880	286,359	91,993													128,517		
6.801	490	490	Linear Feet	Pool Finish, Tile, Avana	2034	15 to 25	16	42.00	20,580	20,580	35,138	35,138															
6.802	6,610	6,610	Square Feet	Pool Finish, Plaster, Community Center	2022	8 to 12	4	12.00	79,320	79,320	394,299									176,960							
6.803	680	680	Linear Feet	Pool Finish, Tile, Community Center	2032	15 to 25	14	42.00	28,560	28,560	45,608																
6.804	2,390	2,390	Square Feet	Pool Finish, Plaster, Grey Rock	2023	8 to 12	5	12.00	28,680	28,680	147,416									66,160							
6.805	210	210	Linear Feet	Pool Finish, Tile, Grey Rock	2033	15 to 25	15	42.00	8,820	8,820	14,564																
6.806	13,980	13,980	Square Feet	Pool Finish, Plaster, Swim Center	2024	8 to 12	6	12.00	167,760	167,760	891,606	286,429													400,150		
6.807	2,750	2,750	Linear Feet	Pool Finish, Tile, Swim Center (Incl. Lane Lines)	2034	15 to 25	16	32.00	88,000	88,000	150,249	150,249															
6.870	3	3	Each	Shade Structures, Avana	2029	to 15	11	5,800.00	17,400	17,400	66,638														41,503		
6.871	9	9	Each	Shade Structure, Community Center	2027	to 15	9	6,500.00	58,500	58,500	209,551									130,512							
6.872	3	3	Each	Shade Structure, Grey Rock	2032	to 15	14	5,800.00	17,400	17,400	73,669														45,882		
6.873	10	10	Each	Shade Structure, Swim Center (Incl. Playground)	2023	to 15	5	7,000.00	70,000	70,000	219,355					136,618											
6.899	8	8	Each	Diving Platforms, Swim Center	2027	to 10	9	3,100.00	24,800	24,800	145,712				46,810										65,395		
6.903	13,980	13,980	Square Feet	Structure and Deck, Total Replacement, Swim Center	2048	to 60	30	120.00	1,677,600	1,677,600	4,574,089														4,574,089		





# RESERVE FUNDING PLAN

## CASH FLOW ANALYSIS

### Circle C

### Homeowners Association

Austin, Texas

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

	FY2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
<b>Reserves at Beginning of Year (Note 1)</b>	708,732	720,780	205,265	286,298	443,640	427,788	102,734	172,585	622,218	1,102,235	259,660	756,718	1,247,656	1,621,842	1,447,746	903,934
<b>Total Recommended Reserve Contributions (Note 2)</b>	0	101,000	202,000	303,000	404,000	505,000	522,200	540,000	558,400	577,400	597,000	617,300	638,300	660,000	682,400	705,600
Plus <b>Estimated Interest Earned, During Year (Note 3)</b>	12,048	7,805	4,143	6,152	7,345	4,471	2,320	6,699	14,534	11,479	8,566	16,894	24,185	25,872	19,821	19,992
Less <b>Anticipated Expenditures, By Year</b>	0	(624,320)	(125,110)	(151,810)	(427,197)	(834,525)	(454,669)	(97,066)	(92,917)	(1,431,454)	(108,508)	(143,256)	(288,299)	(859,968)	(1,246,033)	(161,443)
<b>Anticipated Reserves at Year End</b>	<u>\$720,780</u>	<u>\$205,265</u>	<u>\$286,298</u>	<u>\$443,640</u>	<u>\$427,788</u>	<u>\$102,734</u>	<u>\$172,585</u>	<u>\$622,218</u>	<u>\$1,102,235</u>	<u>\$259,660</u>	<u>\$756,718</u>	<u>\$1,247,656</u>	<u>\$1,621,842</u>	<u>\$1,447,746</u>	<u>\$903,934</u>	<u>\$1,468,083</u>

(NOTE 5)

(continued)

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

	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
<b>Reserves at Beginning of Year</b>	1,468,083	1,547,782	1,356,078	1,974,631	2,281,782	2,857,127	2,587,440	3,325,706	4,090,422	3,670,324	3,403,075	3,444,487	4,278,885	5,372,406	4,396,958
<b>Total Recommended Reserve Contributions</b>	729,600	754,400	780,000	806,500	833,900	862,300	891,600	921,900	953,200	985,600	1,019,100	1,053,700	1,089,500	1,126,500	1,164,800
Plus <b>Estimated Interest Earned, During Year</b>	25,419	24,475	28,072	35,875	43,313	45,889	49,838	62,506	65,410	59,617	57,714	65,095	81,345	82,340	44,181
Less <b>Anticipated Expenditures, By Year</b>	(675,320)	(970,579)	(189,519)	(535,224)	(301,868)	(1,177,876)	(203,172)	(219,690)	(1,438,708)	(1,312,466)	(1,035,402)	(284,397)	(77,324)	(2,184,288)	(4,760,915)
<b>Anticipated Reserves at Year End</b>	<u>\$1,547,782</u>	<u>\$1,356,078</u>	<u>\$1,974,631</u>	<u>\$2,281,782</u>	<u>\$2,857,127</u>	<u>\$2,587,440</u>	<u>\$3,325,706</u>	<u>\$4,090,422</u>	<u>\$3,670,324</u>	<u>\$3,403,075</u>	<u>\$3,444,487</u>	<u>\$4,278,885</u>	<u>\$5,372,406</u>	<u>\$4,396,958</u>	<u>\$845,024</u>

(NOTES 4&5)

#### Explanatory Notes:

- 1) Year 2018 starting reserves are as of March 31, 2018; FY2018 starts January 1, 2018 and ends December 31, 2018.
- 2) Reserve Contributions for 2018 are budgeted; 2019 is the first year of recommended contributions.
- 3) 1.7% is the estimated annual rate of return on invested reserves.
- 4) Accumulated year 2048 ending reserves consider the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Years (reserve balance at critical point).

## 4. RESERVE COMPONENT DETAIL

The Reserve Component Detail of this *Full Reserve Study* includes enhanced solutions and procedures for select significant components. This section describes the Reserve Components, documents specific problems and condition assessments, and may include detailed solutions and procedures for necessary capital repairs and replacements for the benefit of current and future board members. We advise the Board use this information to help define the scope and procedures for repair or replacement when soliciting bids or proposals from contractors. *However, the Report in whole or part is not and should not be used as a design specification or design engineering service.*

### Exterior Building Elements

Circle C maintains four amenity areas; Avana, the Community Center, Grey Rock, and the Swim Center. These amenity areas generally date to the follow years: 2014, 2012, 2017 and 1992, respectively.

#### Deck, Composite

---

**Line Item:** 1.153

**Quantity:** One composite deck with a wood frame which comprises a total of 1,150 square feet located at the Community Center

**History:** Constructed in 2012

**Condition:** Good overall with sags and dips evident



Deck overview



Sag in composite deck boards

**Useful Life:** 20- to 25-years

**Component Detail Notes:** The wood components in the composite material will absorb moisture. When dispelled, black mold spots can appear that will require

chemical cleaning. However, these spots will reappear resulting in the need for cleaning every other month as needed during humid months. The Association should fund these expenses through the operating budget.

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

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

## Roofs, Metal

---

**Line Items:** 1.460 through 1.464

**Quantity:** 30 squares<sup>1</sup> at Avana, 20 squares at Grey Rock, and 30 squares at the Swim Center

**History:** Presumed original to building construction

**Condition:** Good to fair overall with no significant deterioration evident. Management does not report a history of leaks.



**Metal roof at amenity center**



**Metal roof at Swim Center lifeguard building**

**Useful Life:** Up to 30 years

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

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

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

## Roofs, Thermoplastic

---

**Line Items:** 1.531 and 1.533

**Quantity:** 12,120 square feet at the Community Center and 1,820 square feet at the Swim Center mechanical and maintenance buildings.

**History:** Original at the Community Center and an unknown age at the Swim Center; the Association should conduct inspections of the roofs semiannually and fund these inspections through the operating budget.

**Condition:** Good to fair overall with bulges in the membrane evident at the Community Center.



**Thermoplastic roof overview**



**Numerous ripples in the membrane**

**Useful Life:** 15- to 20-years

**Component Detail Notes:** The following characteristics define most thermoplastic roofs:

- Attachment to the roof deck is either fully adhered, mechanical or ballasted
- Membranes are commonly white and reinforced with polyester
- Seams are sealed with heat or chemical welding
- Sheet widths range from 6- to 12-feet wide
- Sheets are typically 40- to 100-mils thick
- Single ply (one layer)

Over time, exposure to ultraviolet light, heat and weather degrade the membrane. This degradation results in membrane damage from thermal expansion and contraction, adverse weather and pedestrian traffic. The aging process makes the membrane less pliable and more difficult to maintain. Ponding water on the roof can increase the effects of ultraviolet light on the membrane and contaminants in ponded water can

cause the membrane to deteriorate prematurely. Thermoplastic roofs (especially TPO) are relatively new and their long term performance is not well defined.

Contractors can install a new thermoplastic roof in one of two ways: *tear-off* or an *overlay*. An *overlay* is the application of a new roof membrane over an existing roof. This method, although initially more economical, often covers up problems with the deck, flashing and saturated insulation. The *tear-off* method of replacement includes removal of the existing roofing, flashings and insulation, and installation of a new roofing system.

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

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

## Walls, Paint Finishes

---

**Line Item:** 1.760

**History:** Paint finishes vary in age

**Condition:** Good overall



Community Center overview



Community Center pool rest room building



**Avana**



**Grey Rock**

**Useful Life:** Four- to six-years

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

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We assume the following activities per event:

- Paint finish applications to the fiber cement siding, wood trim and soffits
- Replacement of a limited amount of siding and trim (The exact amount of material in need of replacement will depend on the actual future conditions and desired appearance. We recommend replacement wherever holes, cracks and deterioration impair the ability of the material to prevent water infiltration.)
- Replacement of sealants as needed

## **Walls, Masonry**

---

**Line Item:** 1.800

**Quantity:** Approximately 11,150 square feet across the four amenity centers

**History:** Original to construction

**Condition:** Good overall



**Stone masonry at Community Center**



**Area of water damage**



**Stone masonry at Community Center**



**Mortar deterioration beneath window at Swim Center**

**Useful Life:** The Association should anticipate inspection and repairs to the masonry every 8- to 10-years.

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

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We assume a complete inspection of all the masonry veneer and repairs at up to two percent (2.00%) per event.

## **Windows and Doors, Community Center**

---

**Line Item:** 1.983

**Quantity:** 330 square feet at the Swim Center

**History:** Original

**Condition:** Fair overall



**Windows and door**

**Useful Life:** Up to 40 years

**Component Detail Notes:** Properly designed window and door assemblies anticipate the penetration of some storm water beyond the gaskets. This infiltrated storm water collects in an internal drainage system and drains, or exits, the frames through weep holes. These weep holes can become clogged with dirt or if a sealant is applied, resulting in trapped storm water. We recommend Circle C periodically verify that weep holes are unobstructed as normal maintenance. However, as window frames, gaskets and sealants deteriorate, leaks into the interior can result. The windows and doors will eventually need replacement or major capital repairs to prevent water infiltration and damage from wind driven rain.

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

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

## Interior Building Elements

### Interior Renovations, Community Center

---

**Line Items:** 2.501 and 2.511

**History:** Original to construction in 2012.

**Condition:** Good overall



**Foyer**



**Kitchen**



**Rest Room**



**Meeting room**

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

**Component Detail Notes:** The Community Center interior comprises approximately 4,500 square feet of finished area which includes:

- Carpet and tile floor coverings
- Paint finishes on a portion of the walls and ceilings
- Wood ceiling finishes
- Acoustical ceiling tiles and grid
- Rest rooms including plumbing fixtures
- Light fixtures including exit and emergency lights
- Kitchen including appliances, cabinets and countertops
- Furnishings

**Priority/Criticality:** Per Board discretion

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

These partial renovations should include the following:

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

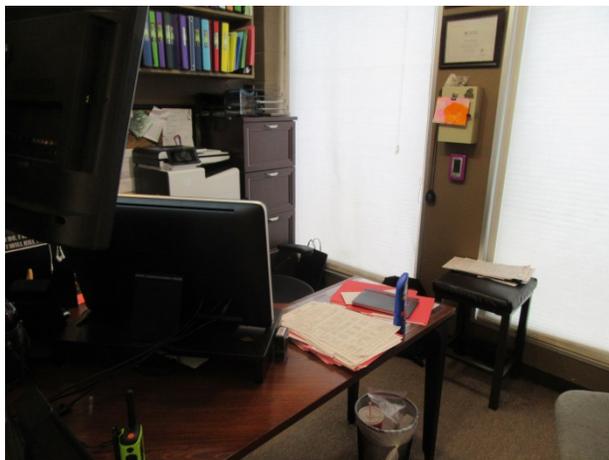
## **Interior Renovations, Swim Center**

---

**Line Items:** 2.503 and 2.513

**History:** Components vary in age. The Association recently renovated the upper level of the lifeguard building.

**Condition:** Fair overall



**Lower level office**



**Upper level**

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

**Component Detail Notes:** The Swim Center building interiors comprise approximately 1,300square feet of finished area which includes:

- Carpet floor coverings
- Paint finishes on a portion of the floors, walls and ceilings
- Direct applied ceiling tiles and grid
- Light fixtures including exit and emergency lights
- Cabinets and countertops
- Furnishings

**Priority/Criticality:** Per Board discretion

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

These partial renovations should include the following:

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

## **Rest Rooms**

---

**Line Items:** 2.900 through 2.903

**Quantity:** One men's and one women's rest room at each amenity center pool area

**History:** Components are primarily original to building construction. At the Swim Center, the fixtures were replaced in approximately 2014.

**Condition:** Good to fair overall



**Vanity at Avana**



**Stalls and vanity at Community Center**



**Rest room at Grey Rock**



**Shower area at the Swim Center**

**Useful Life:** Renovation up to every 20 years

**Component Detail Notes:** Components include:

- Painted floor surfaces
- Paver floor surface at the Swim Center
- Carpet floor coverings at the Avana and Grey Rock lifeguard rooms
- Paint finishes
- Light fixtures
- Plumbing fixtures

**Priority/Criticality:** Per Board discretion

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

## **Building Services Elements**

### **Air Handling Units, Rooftop/Packaged Heating and Cooling Units**

**Line Items:** 3.061 through 3.063

**Quantity:** One *Lennox* rooftop air handling unit for the Community Center, one Carrier packaged cooling unit for the lifeguard building at the Swim Center and one rooftop air handling unit for the Cafe at the Swim Center

**History:** Installed in 2012 at the Community Center, in 2006 at lifeguard building and an unknown age at the Cafe

**Condition:** Reported satisfactory without operational deficiencies



**Rooftop mechanical area at the Community Center**



**Packaged unit at the Swim Center**

**Useful Life:** 15- to 20-years

**Component Detail Notes:** The units have the following characteristics:

- Cooling capacity of 5-tons at the Community Center and 2-tons at the Swim Center
- R-410A refrigerant

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

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

## **Air Handling and Condensing Units, Split Systems**

**Line Item:** 3.071

**Quantity:** Five split systems at the Community Center

**History:** Installed in 2012

**Condition:** Reported satisfactory without operational deficiencies

**Useful Life:** 15- to 20-years

**Component Detail Notes:** A split system air conditioner consists of an outside condensing unit, an interior evaporator coil, refrigerant lines and an interior electric TYPE. Each condensing unit has a cooling capacity of 5-tons. The split systems use R-410A refrigerant.

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



**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. The condensing unit may require replacement prior to replacement of the related interior forced air unit. For purposes of this Reserve Study, we assume coordination of replacement of the interior forced air unit, evaporator coil, refrigerant lines and exterior condensing unit.

## Security Systems

---

**Line Items:** 3.820 through 3.823

**Quantity:** Circle C utilizes the following security system components:

- Automated card reading system (3 access points at the Community Center)
- Cameras (13 at Avana, 23 at the Community Center, 12 at Grey Rock and 21 at the Swim Center)
- Multiplexers
- Recorders

**History:** Vary in age

**Condition:** Reported satisfactory

**Useful Life:** Up to 15 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. The Association should anticipate replacement of up to fifty percent (50%) of the security system components per event.

## Property Site Elements

### Asphalt Pavement, Remaining, Crack Repair, Patch and Seal Coat

---

**Line Item:** 4.020

**Quantity:** Approximately 10,900 square yards across the four amenity areas

**History:** Varies in age

**Condition:** Good to fair overall

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

**Component Detail Notes:** Proposals for seal coat applications should include crack repairs and patching. The contractor should only apply seal coat applications after

repairs are completed. A seal coat does not bridge or close cracks, therefore, unrepaired cracks render the seal coat applications useless.

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost includes an allowance for crack repairs and patching of up to two percent (2%) of the pavement.

## **Asphalt Pavement, Repaving**

---

**Line Items:** 4.040 and 4.041

**Quantity:** Approximately 3,350 square yards at the Swim Center and 7,550 square yards at the remaining three amenity areas

**History:** Original to building construction

**Condition:** Good to fair overall with seal coat deterioration throughout the locations and fatigue cracks and previous repairs at the Swim Center evident



**Asphalt pavement overview at Avana**



**Seal coat deterioration at the Community Center**



**Seal coat deterioration and cracks at the Community Center**



**Asphalt pavement overview at Grey Rock**



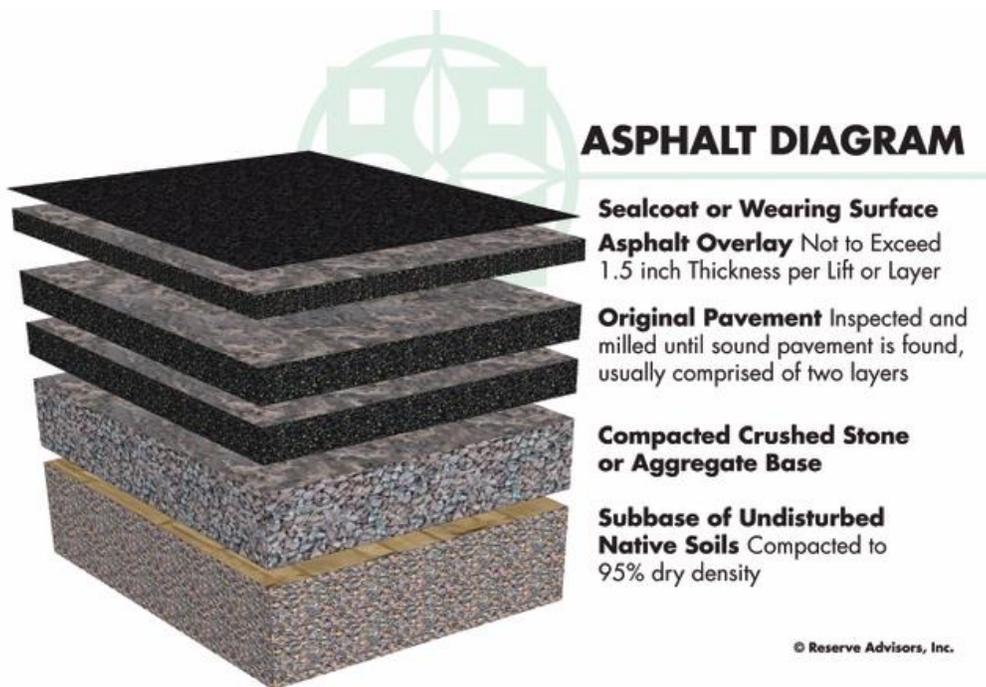
**Wear and general deterioration at the Swim Center**



**Fatigue cracks at the Swim Center**

**Useful Life:** 15- to 20-years

**Component Detail Notes:** The initial installation of asphalt uses at least two lifts, or two separate applications of asphalt, over the base course. The first lift is the binder course. The second lift is the wearing course. The wearing course comprises a finer aggregate for a smoother more watertight finish. The following diagram depicts the typical components although it may not reflect the actual configuration at Circle C:



The manner of repaving is either a mill and overlay or total replacement. A mill and overlay is a method of repaving where cracked, worn and failed pavement is mechanically removed or milled until sound pavement is found. A new layer of asphalt is overlaid atop the remaining base course of pavement. Total replacement includes the removal of all existing asphalt down to the base course of aggregate and native soil followed by the application of two or more new lifts of asphalt. We recommend mill and overlayment on asphalt pavement that exhibits normal deterioration and wear. We recommend total replacement of asphalt pavement that exhibits severe deterioration, inadequate drainage, pavement that has been overlaid multiple times in the past or where the configuration makes overlayment not possible. Based on the apparent visual condition and configuration of the asphalt pavement, we recommend the mill and overlay method of repaving at Circle C.

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

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost for milling and overlayment includes area patching of up to ten percent (10%).

## Fences, Steel

---

**Line Item:** 4.245

**Quantity:** 2,780 linear feet across multiple locations, including the parks, amenity centers, and various locations throughout the community, typically located near a mailbox structure and/or karst. This quantity excludes the fences directly adjacent to the pool areas, as we include those fences on line items in the Pool section below.

**History:** The fences vary in age

**Condition:** The fences are in good to fair overall condition with no significant deterioration evident



**Typical fence**



**Typical fence**

**Useful Life:** Up to 35 years for replacement

**Component Detail Notes:** Steel components at grade and key structural connections are especially prone to failure if not thoroughly maintained. Secure and rust free fasteners and connections will prevent premature deterioration. Preparation of the steel before application of the paint finish is critical to maximize the useful life of the finish.

**Priority/Criticality:** Per Board discretion

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

## **Fences, Wood**

---

**Line Item:** 4.285

**Quantity:** 1,830 linear feet at the Community Center pool mechanical area, near the pond at Back Bay Lane, adjacent to the park near Redmond Road and along Barstow Avenue

**History:** Varies in age

**Condition:** Fair overall



**Wood fence**

**Useful Life:** 15- to 20-years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. The Association 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/stain applications as needed and fund these activities through the operating budget.

## **Irrigation System**

---

**Line Item:** 4.420

**Quantity:** Approximately 4,100,000 square feet, 3,000 valves, 65 controllers with an additional 150 battery node clocks, and a combination of over 10,000 heads and drip areas. Additionally, there are approximately 50 water meter connections with associated backflow preventive devices. The irrigation generally comprises the following areas:

- Amenity areas (4)
- Slaughter Lane
- Escarpment Boulevard
- La Crosse Avenue
- Barstow Avenue
- Spruce Canyon Drive
- Trissino Drive
- Bernia Drive
- Archeleta Boulevard
- Park Place
- Vintage Place Park
- Vinemont Entry

- Sundrop Valley
- Wildflower Park
- Eclipse
- Dahlgreen
- South Bay
- Via Grande
- Muirfield
- Aden Lane Pocket Park
- Redmond Pocket Park

**History:** Varies in age; Two of the largest areas, Escarpment and Slaughter Lane, pre-date 1990. Newer sections, specifically Avana and Grey Rock, are entirely two-wire drip systems. Some areas have been converted to drip systems, while the main line and wiring have not been replaced.

**Condition:** Reported unsatisfactory in numerous capacities, including, but not limited to, aging wiring, aging infrastructure, poor installation workmanship, inadequate water coverage to maintain landscape elements, and increasing frequency of failures and ongoing damage by outside contractors

**Useful Life:** Up to 40 years

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

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

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

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

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Based on the varied age of the system, as well as the scope, we depict replacement in a phased manner, consistent with how the Association has currently approached replacement. However, we recommend the Association budget for these larger, phased replacements on a systematic basis. Our estimated costs only include funds to replicate the systems current capacities, and do not account for replacement or refurbishment of any of the landscape elements. If these landscape elements are planned to be entirely or significantly replaced concurrent with the

irrigation replacement, the estimated cost could significantly increase from the stated costs in this study.

## **Lift Station, Pumps**

---

**Line Item:** 4.540

**Quantity:** Two each at the Community Center

**History:** Installed in 2012

**Condition:** Reported good

**Useful Life:** Up to 10 years

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

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

## **Lift Station**

---

**Line Item:** 4.550

**History:** Installed in 2012

**Condition:** Reported good overall without any reports of service interruptions



**Lift station**

**Useful Life:** Up to 30 years

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

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Rebuilding of the station includes replacement of pumps, motors, guide rails and electrical components including controls. The Association should fund interim repairs and replacements through the operating budget.

## **Light Poles and Fixtures**

---

**Line Item:** 4.560

**Quantity:** 17 light poles and fixtures at the four amenity centers

**History:** Vary in age

**Condition:** Good to fair overall



**Typical light pole and fixture**

**Useful Life:** Up to 25 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. The 2019 expenditure is replacement of the fixtures at the Swim Center.

## **Light Fixtures, Bollard, Landscape and Miscellaneous**

---

**Line Items:** 4.562 and 4.654

**Quantity:** Approximately 70 bollard light fixtures along Escarpment Boulevard and 400 landscape and various light fixtures throughout the development.

**History:** Vary in age

**Condition:** Fair overall



**Bollard and landscape light fixture**

**Useful Life:** Up to 25 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We depict replacement of the landscape and miscellaneous light fixtures in a phased manner.

## **Mailbox Stations, Capital Repairs**

---

**Line Item:** 4.600

**Quantity:** 39 stations

**History:** Vary in age

**Condition:** Good overall



**Typical mailbox station**



**Typical mailbox station**

**Useful Life:** Replacement of the metal roofs and capital repairs to the masonry faced are likely every 30 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Interim repairs should be funded through the operating budget. Based on the varied ages and conditions, we depict replacement in a phased manner.

## **Pipes, Pool Backwash, Swim Center**

---

**Line Item:** 4.601

**History:** Management reports potential permit issues with the current method of backwash discharge that will require tie in to the existing sanity sewer line

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

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our estimate of cost is budgetary in nature, and we recommend the Association solicit bids once the scope of this project is further defined to better estimate future costs.

## **Playground Equipment**

---

**Line Items:** 4.660 through 4.666

**History:** Varies in age

**Condition:** Good to fair overall



**Equipment at Avana**



**Equipment at Avana**



**Equipment at Grey Rock**



**Equipment at Park Place**



**Equipment at the Swim Center**



**Equipment at the Swim Center**



**Equipment at Vintage Place**



**Equipment at Wildflower**

**Useful Life:** 15- to 20-years

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

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

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

## **Pumps, Submersible, Drainage Area**

---

**Line Item:** 4.699

**Quantity:** 2 submersible 3-HP pumps at the drainage area near the community center

**History:** Presumed original

**Condition:** Reported satisfactory

**Useful Life:** 15- to 20-years

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

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

## Shade Structures

---

**Line Item:** 4.701

**Quantity:** One at Wildflower Park and one at Vintage Place Park

**History:** Installed in 2007

**Condition:** Good overall

**Useful Life:** 15- to 20-years

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

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Interim replacement of the canvas should be funded through the operating budget.

## Signage, Entrance Monuments

---

**Line Item:** 4.800

**Quantity:** Property identification signs throughout the community, including the main monument at the intersection of Escarpment Boulevard and Slaughter Lane, Avana, Grey Rock, and various other locations

**History:** Vary in age

**Condition:** Good overall, with reported concerns at the main entrance monument.



**Main entrance monument**



**Small entrance monument**



**Vintage Place monument**



**Avana entrance monument**

**Useful Life:** 15- to 20-years

**Component Detail Notes:** Community signage contributes to the overall aesthetic appearance of the property to owners and potential buyers. Renovation or replacement of community signs is often predicated upon the desire to "update" the perceived identity of the community rather than for utilitarian concerns. Therefore, the specific times for replacement or renovation are discretionary. The signage includes the following elements:

- Light fixtures
- Letters
- Masonry
- Landscape

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. The 2019 expenditure is for remedial repairs to the main entrance monument.

## **Vehicles**

---

**Line Item:** 4.901

**Quantity:** Two each

**History:** Replaced in 2017

**Condition:** Reported satisfactory

**Useful Life:** Up to 10 years

**Priority/Criticality:** Per Board discretion

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

## Pool Elements



**Avana pool overview**



**Community Center pool overview**



**Grey Rock pool overview**



**Swim Center pool overview**

## Artificial Turf

---

**Line Item:** 6.103

**Quantity:** 1,400 square feet

**History:** Installed in 2018

**Condition:** Good overall



**Artificial turf**

**Useful Life:** Up to 10 years

**Priority/Criticality:** Per Board discretion

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

## **Concrete Deck**

---

**Line Items:** 6.200 through 6.203

**Quantity:** 6,340 square feet at Avana, 8,840 square feet at the Community Center, 4,190 square feet at Grey Rock and 12,920 square feet at the Swim Center.

**History:** Installation dates to construction at each amenity area.

**Condition:** Good condition overall. The decks at Avana and Grey Rock are uncoated, the deck at the Community Center primarily is coated, with a limited section that is not, and the Swim Center deck is primarily masonry pavers with a limited amount of uncoated concrete.



**Deck at Avana**



**Concrete deterioration**



**Coated deck at the Community Center**



**Areas of repairs**



**Deck overview at Grey Rock**



**Deck overview at Grey Rock**



**Pavers at the Swim Center**



**Pavers at the Swim Center**

**Useful Life:** The useful life of a concrete pool deck is up to 60 years or more with timely repairs. We recommend the Association conduct inspections, partial replacements and repairs to the decks at Avana, the Community Center and Grey Rock every 8- to 12-years. The masonry pavers at the Swim Center have a useful life of up to 25 years. We recommend the Association coordinate repairs to the concrete deck portion concurrent with resetting and partial replacement of the masonry pavers every 8- to 12-years.

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

- Selective cut out and replacements of up to ten percent (10%) of concrete
- Crack repairs as needed
- Mortar joint repairs
- Caulk replacement
- Coating replacement at currently coated locations
- Removal of the pavers with partial resetting and replacement

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

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

## **Cover, Vinyl**

---

**Line Item:** 6.300

**Quantity:** 12,464 square feet over nine sections

**History:** Vary in age

**Condition:** Reported satisfactory

**Useful Life:** Six- to eight-years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We depict replacement in a phased manner.

## **Fences, Steel**

---

**Line Items:** 6.400 through 6.403

**Quantity:** 420 linear feet at Avana, 840 linear feet at the Community Center (including the handrails), 390 linear feet at Grey Rock and 1,410 at the Swim Center.

**History:** Original to construction at Avana, the Community Center and Grey Rock. The fences at the Swim Center have had significant repairs and partial replacements over recent years.

**Condition:** Good overall condition with isolated areas of rust and damage evident



**Fence at Avana**



**Fence at the Community Center**



**Fence at Grey Rock**



**Isolated rust**

**Useful Life:** Up to 35 years

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

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

## **Mechanical Equipment**

---

**Line Items:** 6.601 through 6.609

**Quantity:**

- Automatic chlorinators
- Controls
- Filters
- Heaters
- Interconnected pipe, fittings and valves
- Pumps
- Electrical panels
- Ultraviolet systems

**History:** Components vary in age

**Condition:** Reported satisfactory





**Chemical controls at Grey Rock**



**Equipment at the Swim Center**

**Useful Life:** 15- to 20-years

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

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Failure of the pool mechanical equipment as a single event is unlikely. Therefore, we include replacement of up to fifty percent (50%) of the equipment per event. We consider interim replacement of motors and minor repairs as normal maintenance.

## **Pool Finishes, Plaster and Tile**

---

**Line Items:** 6.800 through 6.807

**Quantity:**

- Avana - 4,490 square feet of plaster based on the horizontal surface area and approximately 490 linear feet of tile
- Community Center – 6,610 square feet of plaster based on the horizontal surface area and approximately 680 linear feet of tile
- Grey Rock – 2,390 square feet of plaster based on the horizontal surface area and approximately 210 linear feet of tile
- Swim Center – 13,980 square feet of plaster based on the horizontal surface area and approximately 2,750 linear feet of tile, including the lane lines

**History:** The plaster finish and tile is original at Avana, the Community Center and Grey Rock. The plaster at the Swim Center was replaced in 2014.

**Condition:** Good overall



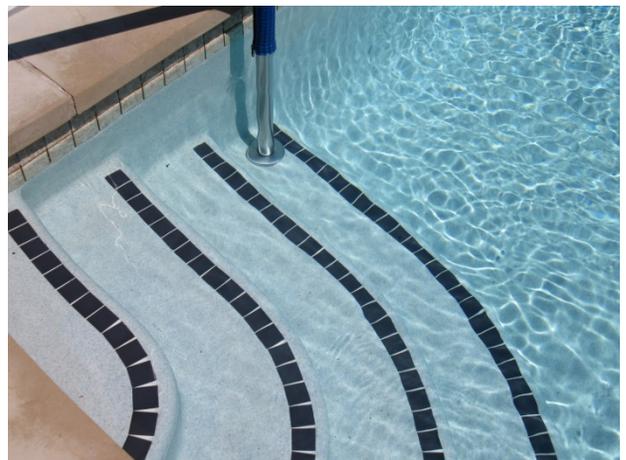
**Pool overview at Avana**



**Plaster pool finish with tile perimeter at Avana**



**Splash pad area at the Community Center**



**Plaster pool finish with tile perimeter at the Community Center**



**Pool overview at Grey Rock**



**Plaster pool finish with tile perimeter at Grey Rock**



**Splash pad at the Swim Center**



**Plaster pool finish with tile perimeter at the Swim Center**

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

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

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

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

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend the Association budget for full tile replacement every other plaster replacement event. Interim to plaster replacement at the main pools, the splash pad plaster finishes may need replacement. We recommend the Association budget for these interim replacements through the operating budget.

## **Shade Structures**

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**Line Items:** 6.870 through 6.873

**Quantity:** Three at Avana, Nine at the Community Center, three at Grey Rock and 10 at the Swim Center, including the playground

**History:** Original at Avana, the Community Center and Grey Rock. At the Swim Center, the playground shade structure was installed in recent years while the remaining structures are an unknown age.

**Condition:** Good



**Typical shade structure**



**Typical shade structure**

**Useful Life:** Up to 15 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Interim canvas replacement should be funded through the operating budget.

## Starting Blocks

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**Line Item:** 6.899

**Quantity:** Eight each

**History:** Installed in 2017

**Condition:** Good overall

**Useful Life:** Up to 10 years

**Priority/Criticality:** Per Board discretion

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

## Structure and Deck

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**Line Item:** 6.903

**Quantity:** 4,490 square feet of horizontal surface area at the Swim Center



**History:** Original

**Conditions:** Visually appears in good condition. The concrete floors and walls have a plaster finish. This finish makes it difficult to thoroughly inspect the concrete structure during a noninvasive visual inspection.

**Useful Life:** Up to 60 years

**Component Detail Notes:** The need to replace a pool structure depends on the condition of the concrete structure, the condition of the embedded or concealed water circulation piping, possible long term uneven settlement of the structure, and the increasing cost of repair and maintenance. Deterioration of any one of these component systems could result in complete replacement of the pool. For example, deferral of a deteriorated piping system could result in settlement and cracks in the pool structure. This mode of failure is more common as the system ages and deterioration of the piping system goes undetected. For reserve budgeting purposes, we recommend Circle C plan to replace the following components:

- Concrete and paver deck
- Pool structure
- Subsurface piping

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

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

## **Water Feature, Splash Pads**

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**Line Items:** 6.960 through 6.964

**Quantity:** Splash pads at Avana, the Community Center and Swim Center

**History:** Original at Avana and the Community Center and varied ages at the Swim Center

**Conditions:** Reported satisfactory overall, with a desire to upgrade the Swim Center splash pad in the coming years



**Splash pad at the Community Center**



**Splash pad valves and controls**

**Useful Life:** Capital repairs are likely every three years at the Swim Center with replacement up to every 15 years

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

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

## **Water Slide, Fiberglass**

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**Line Items:** 6.975 and 6.980

**Quantity:** One slide at the Community Center

**History:** Original to construction

**Conditions:** Good overall with evidence of rust and minor deterioration



**Slide overview**



**Support structure**



**Rust**



**Slide overview**

**Useful Life:** Replacement at up to 20 years and refinishing every five years

**Component Detail Notes:** Safety is the major purpose for maintaining the water slide. We recommend an annual inspection of the water slide to identify and repair as normal maintenance loose connections and fasteners or damaged elements. We recommend the use of a specialist for the design or replacement of the water slide environment.

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

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

## Reserve Study Update

An ongoing review by the Board and an Update of this Reserve Study are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in



time. Many variables change after the study is conducted that may result in significant overfunding or underfunding the reserve account. Variables that may affect the Reserve Funding Plan include, but are not limited to:

- Deferred or accelerated capital projects based on Board discretion
- Changes in the interest rates on reserve investments
- Changes in the *local* construction inflation rate
- Additions and deletions to the Reserve Component Inventory
- The presence or absence of maintenance programs
- Unusually mild or extreme weather conditions
- Technological advancements

Periodic updates incorporate these variable changes since the last Reserve Study or Update. We recommend the Board budget for an Update to this Reserve Study in two years. Budgeting for an Update demonstrates the Board's objective to continue fulfilling its fiduciary responsibility to maintain the commonly owned property and to fund reserves appropriately.

## 5.METHODOLOGY

Reserves for replacement are the amounts of money required for future expenditures to repair or replace Reserve Components that wear out before the entire facility or project wears out. Reserving funds for future repair or replacement of the Reserve Components is also one of the most reliable ways of protecting the value of the property's infrastructure and marketability.

Circle C 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:

- 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 Austin, Texas at an annual inflation rate. Isolated or regional markets of greater

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

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

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

- The past and current maintenance practices of Circle C and their effects on remaining useful lives
- Financial information provided by the Association pertaining to the cash status of the reserve fund and budgeted reserve contribution
- The anticipated effects of appreciation of the reserves over time in accord with a return or yield on investment of your cash equivalent assets. (We did not consider the costs, if any, of Federal and State Taxes on income derived from interest and/or dividend income).
- The Funding Plan excludes necessary operating budget expenditures. It is our understanding that future operating budgets will provide for the ongoing normal maintenance of Reserve Components.

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



## 6. CREDENTIALS

### HISTORY AND DEPTH OF SERVICE

**Founded in 1991**, Reserve Advisors, Inc. is the leading provider of reserve studies, insurance appraisals, developer turnover transition studies, expert witness services, and other engineering consulting services. Clients include community associations, resort properties, hotels, clubs, non-profit organizations, apartment building owners, religious and educational institutions, and office/commercial building owners in 48 states, Canada and throughout the world.

The **architectural engineering consulting firm** was formed to take a leadership role in helping fiduciaries, boards, and property managers manage their property like a business with a long range master plan known as a Reserve Study.

Reserve Advisors employs the **largest staff of Reserve Specialists** with bachelor's degrees in engineering dedicated to Reserve Study services. Our principals are founders of Community Associations Institute's (CAI) Reserve Committee that developed national standards for reserve study providers. One of our principals is a Past President of the Association of Professional Reserve Analysts (APRA). Our vast experience with a variety of building types and ages, on-site examination and historical analyses are keys to determining accurate remaining useful life estimates of building components.

**No Conflict of Interest** - As consulting specialists, our **independent opinion** eliminates any real or perceived conflict of interest because we do not conduct or manage capital projects.

### TOTAL STAFF INVOLVEMENT

Several staff members participate in each assignment. The responsible advisor involves the staff through a Team Review, exclusive to Reserve Advisors, and by utilizing the experience of other staff members, each of whom has served hundreds of clients. We conduct Team Reviews, an internal quality assurance review of each assignment, including: the inspection; building component costing; lifing; and technical report phases of the assignment. Due to our extensive experience with building components, we do not have a need to utilize subcontractors.

### OUR GOAL

To help our clients fulfill their fiduciary responsibilities to maintain property in good condition.

### VAST EXPERIENCE WITH A VARIETY OF BUILDINGS

Reserve Advisors has conducted reserve studies for a multitude of different communities and building types. We've analyzed thousands of buildings, from as small as a 3,500-square foot day care center to the 2,600,000-square foot 98-story Trump International Hotel and Tower in Chicago. We also routinely inspect buildings with various types of mechanical systems such as simple electric heat, to complex systems with air handlers, chillers, boilers, elevators, and life safety and security systems.

We're familiar with all types of building exteriors as well. Our well versed staff regularly identifies optimal repair and replacement solutions for such building exterior surfaces such as adobe, brick, stone, concrete, stucco, EIFS, wood products, stained glass and aluminum siding, and window wall systems.

### OLD TO NEW

Reserve Advisors experience includes ornate and vintage buildings as well as modern structures. Our specialists are no strangers to older buildings. We're accustomed to addressing the unique challenges posed by buildings that date to the 1800's. We recognize and consider the methods of construction employed into our analysis. We recommend appropriate replacement programs that apply cost effective technologies while maintaining a building's character and appeal.

**QUALIFICATIONS**  
**THEODORE J. SALGADO**  
**Principal Owner**

**CURRENT CLIENT SERVICES**

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



**PRIOR RELEVANT EXPERIENCE**

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

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

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

**EXPERT WITNESS**

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

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

**PROFESSIONAL AFFILIATIONS/DESIGNATIONS**

American Association of Cost Engineers - Past President, Wisconsin Section

Association of Construction Inspectors - Certified Construction Inspector

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

Community Associations Institute - Member and Volunteer Leader of multiple chapters

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

Milwaukee School of Engineering - Member, Corporation Board

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

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

**JOHN P. POEHLMANN, RS**  
**Principal**

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



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

**PRIOR RELEVANT EXPERIENCE**

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

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

**INDUSTRY SERVICE AWARDS**

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

**EDUCATION**

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

**PROFESSIONAL AFFILIATIONS**

**Community Associations Institute (CAI)** - Founding member of Reserve Committee;  
former member of National Board of Trustees; Reserve Specialist (RS) designation;  
Member of multiple chapters

**Association of Condominium, Townhouse, & Homeowners Associations (ACTHA)** –  
member



**ANDREW L. STOUTENBURG, PE, RS**  
**West Regional Executive Director**  
**Responsible Advisor**

**CURRENT CLIENT SERVICES**

Andrew L. Stoutenburg, a Civil Engineer, is an Advisor for Reserve Advisors. Mr. Stoutenburg is responsible for the inspection and analysis of the condition of clients' properties, and recommending engineering solutions to prolong the lives of the components. He also forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. He is responsible for conducting Life Cycle Cost Analyses and Capital Replacement Forecast services and the preparation of Reserve Study Reports for apartments, condominiums, townhomes and homeowner associations.

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

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

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

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

**Two Sunset Pointe Homeowners Association, Inc.** Located in Little Elm, Texas, just north of Dallas, Two Sunset Pointe comprises 2,905 single family homes. The community includes a main amenity center with pools, a splash pad, sports courts and a playground equipment. Located throughout the community are an additional three pool areas with playground equipment. Throughout the site the Association maintains numerous fences, perimeter walls, retaining walls and landscaped and irrigated areas.

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

**PRIOR RELEVANT EXPERIENCE**

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

**EDUCATION**

University of Central Florida – B.S. Civil Engineering

**PROFESSIONAL AFFILIATIONS**

*Professional Engineer (PE)* – State of Florida and Texas

*Reserve Specialist (RS)* - CAI



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

**CURRENT CLIENT SERVICES**

Alan M. Ebert, a Professional Engineer, is the Director of Quality Assurance for Reserve Advisors. Mr. Ebert is responsible for the management, review and quality assurance of reserve studies. In this role, he assumes the responsibility of stringent report review analysis to assure report accuracy and the best solution for Reserve Advisors' clients.

Mr. Ebert has been involved with thousands of Reserve Study assignments. The following is a partial list of clients served by Alan Ebert demonstrating his breadth of experiential knowledge of community associations in construction and related buildings systems.

**Brownsville Winter Haven** Located in Brownsville, Texas, this unique homeowners association contains 525 units. The Association maintains three pools and pool houses, a community and management office, landscape and maintenance equipment, and nine irrigation canals with associated infrastructure.

**Rosemont Condominiums** This unique condominium is located in Alexandria, Virginia and dates to the 1940's. The two mid-rise buildings utilize decorative stone and brick masonry. The development features common interior spaces, multi-level wood balconies and common asphalt parking areas.

**Stillwater Homeowners Association** Located in Naperville, Illinois, Stillwater Homeowners Association maintains four tennis courts, an Olympic sized pool and an upscale ballroom with commercial-grade kitchen. The community also maintains three storm water retention ponds and a detention basin.

**Birchfield Community Services Association** This extensive Association comprises seven separate parcels which include 505 townhome and single family homes. This Community Services Association is located in Mt. Laurel, New Jersey. Three lakes, a pool, a clubhouse and management office, wood carports, aluminum siding, and asphalt shingle roofs are a few of the elements maintained by the Association.

**Oakridge Manor Condominium Association** Located in Londonderry, New Hampshire, this Association includes 104 units at 13 buildings. In addition to extensive roads and parking areas, the Association maintains a large septic system and significant concrete retaining walls.

**Memorial Lofts Homeowners Association** This upscale high rise is located in Houston, Texas. The 20 luxury units include large balconies and decorative interior hallways. The 10-story building utilizes a painted stucco facade and TPO roof, while an on-grade garage serves residents and guests.

**PRIOR RELEVANT EXPERIENCE**

Mr. Ebert earned his Bachelor of Science degree in Geological Engineering from the University of Wisconsin-Madison. His relevant course work includes foundations, retaining walls, and slope stability. Before joining Reserve Advisors, Mr. Ebert was an oilfield engineer and tested and evaluated hundreds of oil and gas wells throughout North America.

**EDUCATION**

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

**PROFESSIONAL AFFILIATIONS/DESIGNATIONS**

*Professional Engineering License* – Wisconsin, North Carolina, Illinois

*Reserve Specialist (RS)* - Community Associations Institute

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



## RESOURCES

Reserve Advisors, Inc. utilizes numerous resources of national and local data to conduct its Professional Services. A concise list of several of these resources follows:

**Association of Construction Inspectors**, (ACI) the largest professional organization for those involved in construction inspection and construction project management. ACI is also the leading association providing standards, guidelines, regulations, education, training, and professional recognition in a field that has quickly become important procedure for both residential and commercial construction, found on the web at [www.iami.org](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.marshallswift.com](http://www.marshallswift.com).

**R.S. Means CostWorks**, North America's leading supplier of construction cost information. As a member of the Construction Market Data Group, Means provides accurate and up-to-date cost information that helps owners, developers, architects, engineers, contractors and others to carefully and precisely project and control the cost of both new building construction and renovation projects found on the web at [www.rsmeans.com](http://www.rsmeans.com).

Reserve Advisors, Inc., library of numerous periodicals relating to reserve studies, condition analyses, chapter community associations, and historical costs from thousands of capital repair and replacement projects, and product literature from manufacturers of building products and building systems.

## 7. DEFINITIONS

Definitions are derived from the standards set forth by the Community Associations Institute (CAI) representing America's 305,000 condominium and homeowners associations and cooperatives, and the Association of Professional Reserve Analysts, setting the standards of care for reserve study practitioners.

**Cash Flow Method** - A method of calculating Reserve Contributions where contributions to the reserve fund are designed to offset the variable annual expenditures from the reserve fund. Different Reserve Funding Plans are tested against the anticipated schedule of reserve expenses until the desired funding goal is achieved.

**Component Method** - A method of developing a Reserve Funding Plan with the total contribution is based on the sum of the contributions for individual components.

**Current Cost of Replacement** - That amount required today derived from the quantity of a *Reserve Component* and its unit cost to replace or repair a Reserve Component using the most current technology and construction materials, duplicating the productive utility of the existing property at current *local* market prices for *materials, labor* and manufactured equipment, contractors' overhead, profit and fees, but without provisions for building permits, overtime, bonuses for labor or premiums for material and equipment. We include removal and disposal costs where applicable.

**Fully Funded Balance** - The Reserve balance that is in direct proportion to the fraction of life "used up" of the current Repair or Replacement cost similar to Total Accrued Depreciation.

**Funding Goal (Threshold)** - The stated purpose of this Reserve Study is to determine the adequate, not excessive, minimal threshold reserve balances.

**Future Cost of Replacement** - *Reserve Expenditure* derived from the inflated current cost of replacement or current cost of replacement as defined above, with consideration given to the effects of inflation on local market rates for materials, labor and equipment.

**Long-Lived Property Component** - Property component of Circle C 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) Circle C responsibility; 2) limited Useful Life expectancies; 3) predictable Remaining Useful Life expectancies; and 4) a replacement cost above a minimum threshold.

**Reserve Component Inventory** - Line Items in *Reserve Expenditures* that identify a *Reserve Component*.

**Reserve Contribution** - An amount of money set aside or *Reserve Assessment* contributed to a *Reserve Fund* for future *Reserve Expenditures* to repair or replace *Reserve Components*.

**Reserve Expenditure** - Future Cost of Replacement of a Reserve Component.

**Reserve Fund Status** - The accumulated amount of reserves in dollars at a given point in time, i.e., at year end.

**Reserve Funding Plan** - The portion of the Reserve Study identifying the *Cash Flow Analysis* and containing the recommended Reserve Contributions and projected annual expenditures, interest earned and reserve balances.

**Reserve Study** - A budget planning tool that identifies the current status of the reserve fund and a stable and equitable Funding Plan to offset the anticipated future major common area expenditures.

**Useful Life** - The anticipated total time in years that a *Reserve Component* is expected to serve its intended function in its present application or installation.



## 8. PROFESSIONAL SERVICE CONDITIONS

**Our Services** - Reserve Advisors, Inc. (RA) performs its services as an independent contractor in accordance with our professional practice standards and its compensation is not contingent upon our conclusions. The purpose of our reserve study is to provide a budget planning tool that identifies the current status of the reserve fund, and an opinion recommending an annual funding plan to create reserves for anticipated future replacement expenditures of the property.

Our inspection and analysis of the subject property is limited to visual observations, is noninvasive and is not meant to nor does it include investigation into statutory, regulatory or code compliance. RA inspects sloped roofs from the ground and inspects flat roofs where safe access (stairs or ladder permanently attached to the structure) is available. The report is based upon a "snapshot in time" at the moment of inspection. RA may note visible physical defects in our report. The inspection is made by employees generally familiar with real estate and building construction but in the absence of invasive testing RA cannot opine on, nor is RA responsible for, the structural integrity of the property including its conformity to specific governmental code requirements for fire, building, earthquake, and occupancy, or any physical defects that were not readily apparent during the inspection.

RA is not responsible for conditions that have changed between the time of inspection and the issuance of the report. RA does not investigate, nor assume any responsibility for any existence or impact of any hazardous materials, such as asbestos, urea-formaldehyde foam insulation, other chemicals, toxic wastes, environmental mold or other potentially hazardous materials or structural defects that are latent or hidden defects which may or may not be present on or within the property. RA does not make any soil analysis or geological study as part of its services; nor does RA investigate water, oil, gas, coal, or other subsurface mineral and use rights or such hidden conditions. RA assumes no responsibility for any such conditions. The Report contains opinions of estimated costs and remaining useful lives which are neither a guarantee of the actual costs of replacement nor a guarantee of remaining useful lives of any property element.

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

**Report** - RA completes the services in accordance with the Proposal. The Report represents a valid opinion of RA's findings and recommendations and is deemed complete. RA, however, considers any additional information made available to us within 6 months of issuing the Report if a timely request for a revised Report is made. RA retains the right to withhold a revised Report if payment for services was not tendered in a timely manner. All information received by RA and all files, work papers or documents developed by RA during the course of the engagement shall remain the property of RA and may be used for whatever purpose it sees fit.

**Your Obligations** - You agree to provide us access to the subject property for an on-site visual inspection. You agree to provide RA all available, historical and budgetary information, the governing documents, and other information that we request and deem necessary to complete the Report. You agree to pay actual attorneys' fees and any other costs incurred to collect on any unpaid balance for RA's services.

**Use of Our Report and Your Name** - Use of this Report is limited to only the purpose stated herein. You hereby acknowledge that any use or reliance by you on the Report for any unauthorized purpose is at your own risk and you shall hold RA harmless from any consequences of such use. Use by any unauthorized third party is unlawful. The Report in whole or in part **is not and cannot be used as a design specification for design engineering purposes or as an appraisal**. You may show our Report in its entirety to the following third parties: members of your organization, your accountant, attorney, financial institution and property manager who need to review the information contained herein. Without the written consent of RA, you shall not disclose the Report to any other third party. The Report contains intellectual property developed by RA and **shall not be reproduced or distributed to any party that conducts reserve studies without the written consent of RA**.

RA will include your name in our client lists. RA reserves the right to use property information to obtain estimates of replacement costs, useful life of property elements or otherwise as RA, in its sole discretion, deems appropriate.

**Payment Terms, Due Dates and Interest Charges** - Retainer payment is due upon authorization and prior to inspection. The balance is due net 30 days from the report shipment date. Any balance remaining 30 days after delivery of the Report shall accrue an interest charge of 1.5% per month. Any litigation necessary to collect an unpaid balance shall be venued in Milwaukee County Circuit Court for the State of Wisconsin.