

Revised
FULL RESERVE STUDY
Armfield Farm
Homeowners Association



Chantilly, Virginia

Inspected - September 13, 2018

Revised - January 18, 2019



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Armfield Farm Homeowners Association
Chantilly, Virginia

Dear Board of Directors of Armfield Farm Homeowners Association:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Full Reserve Study* of Armfield Farm Homeowners Association in Chantilly, Virginia and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, September 13, 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- to three-years. We look forward to continuing to help Armfield Farm 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 January 18, 2019 by

Reserve Advisors, Inc.

Visual Inspection and Report by: Dixon P. Drumheller, RS¹

Review by: Alan M. Ebert, RS, PRA², Director of Quality Assurance



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

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



Long-term thinking. Everyday commitment.

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1. RESERVE STUDY EXECUTIVE SUMMARY

Client: Armfield Farm Homeowners Association (Armfield Farm)

Location: Chantilly, Virginia

Reference: 130204

Property Basics: Armfield Farm Homeowners Association is a homeowners association which is responsible for the common elements shared by 470 single family homes. The common elements of the Association were built in 1985.

Reserve Components Identified: 42 Reserve Components.

Inspection Date: September 13, 2018. We conducted the original inspection on May 15, 2013.

Funding Goal: The Funding Goal of this Reserve Study is to maintain reserves above an adequate, not excessive threshold during one or more years of significant expenditures. Our recommended Funding Plan recognizes this threshold funding year in 2045 due to replacement of the pool deck and structures.

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
- 2.6% future Inflation Rate for estimating Future Replacement Costs

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

Cash Status of Reserve Fund:

- \$174,705 as of May 31, 2018
- 2018 budgeted Reserve Contributions of \$141,295

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

- Replacement of the remaining walking paths
- Replacement of the basketball courts at Beach Down Drive
- Replacement of the light poles and fixtures at the tennis courts
- Replacement of the doors at the pool house

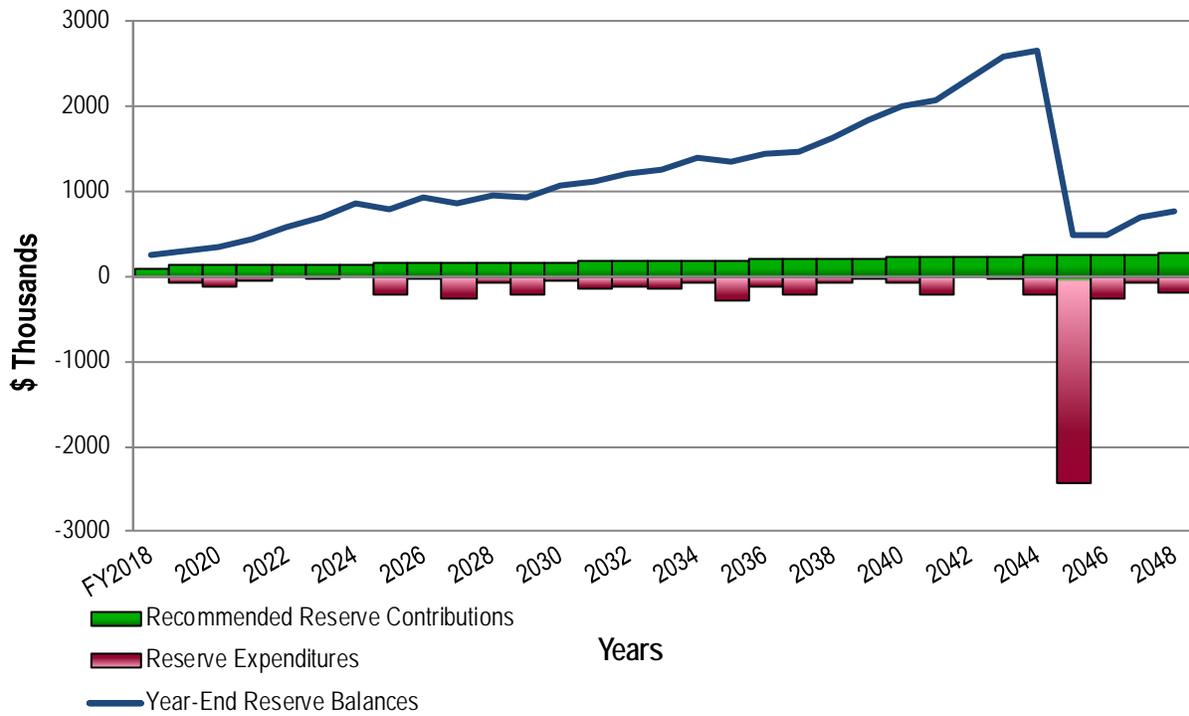
Recommended Reserve Funding: We recommend the following in order to achieve a stable and equitable Funding Plan:

- Reduced reserve budget of \$127,500 in 2019
- Inflationary increases through 2048, the limit of this study's Cash Flow Analysis
- 2019 Reserve Contribution of \$127,500 is equivalent to an average monthly contribution of \$22.61 per homeowner.



Armfield Farm Recommended Reserve Funding Table and Graph

Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2019	127,500	309,491	2029	165,000	928,822	2039	213,300	1,834,211
2020	130,800	335,566	2030	169,300	1,075,829	2040	218,800	2,004,420
2021	134,200	429,720	2031	173,700	1,117,734	2041	224,500	2,061,685
2022	137,700	575,896	2032	178,200	1,205,941	2042	230,300	2,328,991
2023	141,300	695,246	2033	182,800	1,260,863	2043	236,300	2,578,835
2024	145,000	853,298	2034	187,600	1,407,168	2044	242,400	2,654,943
2025	148,800	796,553	2035	192,500	1,342,292	2045	248,700	489,637
2026	152,700	938,705	2036	197,500	1,446,761	2046	255,200	492,438
2027	156,700	858,627	2037	202,600	1,465,999	2047	261,800	685,806
2028	160,800	956,548	2038	207,900	1,623,731	2048	268,600	767,933





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

Armfield Farm Homeowners Association

Chantilly, Virginia

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, September 13, 2018. We conducted the original inspection on May 15, 2013.

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 Fairfax County

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:

- Armfield Farm 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
- Foundation, Pool House
- Pipes, Interior Building, Water and Sewer, Pool House
- Pipes, Subsurface Utilities, Lateral, Pool House
- Structural Frame, Pool House
- Walls, Fiber Cement Siding, Pool House (2015)

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 \$4,000 (Excluding crack repairs patching and seal coat applications at the parking area; These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Backstop, Chain-Link, Clary Sage Drive
- Basketball Hoops
- Catch Basins, Landscape
- Landscape
- Light Fixtures, Pool House Exterior
- Paint Finishes, Touch Up
- Picnic Tables
- Playgrounds, Interim Replacements
- Security Camera, Pool House
- Shade Structures, Interim Canvas Replacements
- Tennis Courts, Standards
- Tennis Courts, Windscreens, Interim Replacements
- Volleyball Court
- Walls, Masonry, Pool House, Inspections and Repairs
- 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:

- Homes and Lots
- Mailboxes

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

- Asphalt Pavement Street Systems
- Concrete Sidewalks, Along Streets
- Creek
- Light Poles and Fixtures, Streets
- Pipes, Subsurface Utilities, Mains

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

**Armfield Farm
Homeowners Association**
Chantilly, Virginia

Explanatory Notes:

- 1) **2.6%** 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)																
Property Site Elements																											
4.020	1,850	1,850	Square Yards	Asphalt Pavement, Crack Repair, Patch and Seal Coat, Parking Area	2019	3 to 5	1	1.70	3,145	3,145	27,426		3,227				3,576										4,391
4.040	1,850	1,850	Square Yards	Asphalt Pavement, Mill and Overlay, Parking Area	2047	15 to 20	29	17.00	31,450	31,450	66,206																
4.045	1,850	1,850	Square Yards	Asphalt Pavement, Total Replacement, Parking Area	2027	15 to 20	9	32.00	59,200	59,200	74,584									74,584							
4.080	5,600	1,400	Square Yards	Asphalt Pavement, Total Replacement, Walking Paths, Phased (Near Term is Remaining)	2019	12 to 18	1 to 7	60.00	84,000	336,000	1,067,859		33,704	34,580									111,404		117,272		123,450
4.089	515	515	Square Yards	Basketball Court, Color Coat, Springhaven Drive	2019	4 to 6	1	20.00	10,300	10,300	77,493		10,568													13,660	
4.090	1,025	1,025	Square Yards	Basketball Courts, Color Coat, Beach Down Drive	2026	4 to 6	8	20.00	20,500	20,500	123,327								25,173							28,620	
4.091	410	410	Linear Feet	Basketball Courts, Fences	2040	to 25	22	42.00	17,220	17,220	30,288																
4.092	515	515	Square Yards	Basketball Court, Surface Replacement, Springhaven Drive	2038	to 25	20	42.00	21,630	21,630	36,141																
4.093	1,025	1,025	Square Yards	Basketball Courts, Surface Replacement, Beach Down Drive	2021	to 25	3	42.00	43,050	43,050	134,824				46,496												
4.101	160	160	Square Feet	Bridge, Wood	2023	15 to 25	5	38.00	6,080	6,080	6,913						6,913										
4.110	1,000	175	Linear Feet	Concrete Curbs and Gutters, Parking Lot, Partial	2027	to 65	9 to 30+	33.00	5,775	33,000	19,433										7,276						
4.140	3,755	500	Square Feet	Concrete Sidewalks, Pool House, Partial	2025	to 65	7 to 30+	10.00	5,000	37,550	23,718								5,984								
4.285	250	250	Linear Feet	Fences, Wood, Split Rail, Clary Sage Path	2019	to 25	1	25.00	6,250	6,250	18,594		6,412														
4.420	12	12	Zones	Irrigation System	2036	to 40	18	1,875.00	22,500	22,500	35,714																
4.660	1	1	Allowance	Playground Equipment, Clary Sage Drive	2023	15 to 20	5	11,500.00	11,500	11,500	34,921						13,075										
4.661	1	1	Allowance	Playground Equipment, Pool House	2025	15 to 20	7	125,000.00	125,000	125,000	399,573								149,603								
4.662	1	1	Allowance	Playground Equipment, Springhaven Drive, North	2032	15 to 20	14	41,500.00	41,500	41,500	59,444															59,444	
4.663	1	1	Allowance	Playground Equipment, Springhaven Drive, South	2032	15 to 20	14	17,000.00	17,000	17,000	24,351															24,351	
4.664	1,040	1,040	Linear Feet	Playground Equipment, Timber Borders	2019	15 to 20	1	5.00	5,200	5,200	14,250		5,335														
4.800	1	1	Allowance	Signage, Renovation, Bellrose Drive and Lees Corner Road	2025	15 to 20	7	7,400.00	7,400	7,400	23,280									8,857							
4.801	1	1	Allowance	Signage, Renovation, Bokel Drive	2035	15 to 20	17	8,900.00	8,900	8,900	13,769																
4.802	1	1	Allowance	Signage, Renovation, Centerville Road and Armfield Farm Drive (2019 is Planned)	2019	15 to 20	1	4,200.00	4,200	4,200	17,018		10,000														
4.803	1	1	Allowance	Signage, Renovation, Springhaven Drive and Lees Corner Road	2035	15 to 20	17	8,000.00	8,000	8,000	12,376																
4.830	1,440	1,440	Square Yards	Tennis Courts, Color Coat	2020	4 to 6	2	20.00	28,800	28,800	256,779			30,317						34,469					39,189		
4.840	460	460	Linear Feet	Tennis Courts, Fence	2038	to 25	20	43.00	19,780	19,780	33,050																
4.850	8	8	Each	Tennis Courts, Light Poles and Fixtures	2020	to 35	2	4,000.00	32,000	32,000	97,678			33,686													
4.860	1,440	1,440	Square Yards	Tennis Courts, Surface Replacement	2028	to 25	10	42.00	60,480	60,480	78,178										78,178						
Pool House Elements																											
5.180	250	250	Square Feet	Doors	2019	to 35	1	50.00	12,500	12,500	12,825		12,825														
5.500	1	1	Allowance	Interior, Renovation	2035	to 20	17	43,500.00	43,500	43,500	67,297																
5.610	20	20	Squares	Roof Assembly, Asphalt Shingles	2027	15 to 20	9	530.00	10,600	10,600	34,552										13,355						
Pool Elements																											
6.200	12,125	12,125	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs (Incl. Concrete Driveway)	2027	8 to 12	9	1.50	18,188	18,188	52,533										22,914						
6.201	12,125	12,125	Square Feet	Concrete Deck, Total Replacement (Incl. Concrete Driveway)	2045	to 60	27	15.26	185,000	185,000	369,956																
6.300	5,720	5,720	Square Feet	Covers, Vinyl	2025	6 to 8	7	3.00	17,160	17,160	76,725								20,538								25,219
6.400	780	780	Linear Feet	Fences, Aluminum	2036	to 25	18	39.00	30,420	30,420	48,285																
6.500	1	1	Allowance	Furniture	2029	to 12	11	63,000.00	63,000	63,000	197,245														83,553		

RESERVE EXPENDITURES

**Armfield Farm
Homeowners Association
Chantilly, Virginia**

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)																
Property Site Elements																											
4.020	1,850	1,850	Square Yards	Asphalt Pavement, Crack Repair, Patch and Seal Coat, Parking Area	2019	3 to 5	1	1.70	3,145	3,145	27,426		4,865			5,392					5,975						
4.040	1,850	1,850	Square Yards	Asphalt Pavement, Mill and Overlay, Parking Area	2047	15 to 20	29	17.00	31,450	31,450	66,206														66,206		
4.045	1,850	1,850	Square Yards	Asphalt Pavement, Total Replacement, Parking Area	2027	15 to 20	9	32.00	59,200	59,200	74,584																
4.080	5,600	1,400	Square Yards	Asphalt Pavement, Total Replacement, Walking Paths, Phased (Near Term is Remaining)	2019	12 to 18	1 to 7	60.00	84,000	336,000	1,067,859		129,952									163,723		172,348		181,426	
4.089	515	515	Square Yards	Basketball Court, Color Coat, Springhaven Drive	2019	4 to 6	1	20.00	10,300	10,300	77,493	15,531				17,658						20,076					
4.090	1,025	1,025	Square Yards	Basketball Courts, Color Coat, Beach Down Drive	2026	4 to 6	8	20.00	20,500	20,500	123,327			32,539				36,995									
4.091	410	410	Linear Feet	Basketball Courts, Fences	2040	to 25	22	42.00	17,220	17,220	30,288						30,288										
4.092	515	515	Square Yards	Basketball Court, Surface Replacement, Springhaven Drive	2038	to 25	20	42.00	21,630	21,630	36,141				36,141												
4.093	1,025	1,025	Square Yards	Basketball Courts, Surface Replacement, Beach Down Drive	2021	to 25	3	42.00	43,050	43,050	134,824													88,328			
4.101	160	160	Square Feet	Bridge, Wood	2023	15 to 25	5	38.00	6,080	6,080	6,913																
4.110	1,000	175	Linear Feet	Concrete Curbs and Gutters, Parking Lot, Partial	2027	to 65	9 to 30+	33.00	5,775	33,000	19,433														12,157		
4.140	3,755	500	Square Feet	Concrete Sidewalks, Pool House, Partial	2025	to 65	7 to 30+	10.00	5,000	37,550	23,718		7,735											9,999			
4.285	250	250	Linear Feet	Fences, Wood, Split Rail, Clary Sage Path	2019	to 25	1	25.00	6,250	6,250	18,594													12,182			
4.420	12	12	Zones	Irrigation System	2036	to 40	18	1,875.00	22,500	22,500	35,714			35,714													
4.660	1	1	Allowance	Playground Equipment, Clary Sage Drive	2023	15 to 20	5	11,500.00	11,500	11,500	34,921										21,846						
4.661	1	1	Allowance	Playground Equipment, Pool House	2025	15 to 20	7	125,000.00	125,000	125,000	399,573													249,970			
4.662	1	1	Allowance	Playground Equipment, Springhaven Drive, North	2032	15 to 20	14	41,500.00	41,500	41,500	59,444																
4.663	1	1	Allowance	Playground Equipment, Springhaven Drive, South	2032	15 to 20	14	17,000.00	17,000	17,000	24,351																
4.664	1,040	1,040	Linear Feet	Playground Equipment, Timber Borders	2019	15 to 20	1	5.00	5,200	5,200	14,250						8,915										
4.800	1	1	Allowance	Signage, Renovation, Bellrose Drive and Lees Corner Road	2025	15 to 20	7	7,400.00	7,400	7,400	23,280													14,423			
4.801	1	1	Allowance	Signage, Renovation, Bokel Drive	2035	15 to 20	17	8,900.00	8,900	8,900	13,769		13,769														
4.802	1	1	Allowance	Signage, Renovation, Centerville Road and Armfield Farm Drive (2019 is Planned)	2019	15 to 20	1	4,200.00	4,200	4,200	17,018					7,018											
4.803	1	1	Allowance	Signage, Renovation, Springhaven Drive and Lees Corner Road	2035	15 to 20	17	8,000.00	8,000	8,000	12,376		12,376														
4.830	1,440	1,440	Square Yards	Tennis Courts, Color Coat	2020	4 to 6	2	20.00	28,800	28,800	256,779		44,555				50,656							57,593			
4.840	460	460	Linear Feet	Tennis Courts, Fence	2038	to 25	20	43.00	19,780	19,780	33,050					33,050											
4.850	8	8	Each	Tennis Courts, Light Poles and Fixtures	2020	to 35	2	4,000.00	32,000	32,000	97,678													63,992			
4.860	1,440	1,440	Square Yards	Tennis Courts, Surface Replacement	2028	to 25	10	42.00	60,480	60,480	78,178																
Pool House Elements																											
5.180	250	250	Square Feet	Doors	2019	to 35	1	50.00	12,500	12,500	12,825																
5.500	1	1	Allowance	Interior, Renovation	2035	to 20	17	43,500.00	43,500	43,500	67,297		67,297														
5.610	20	20	Squares	Roof Assembly, Asphalt Shingles	2027	15 to 20	9	530.00	10,600	10,600	34,552													21,197			
Pool Elements																											
6.200	12,125	12,125	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs (Incl. Concrete Driveway)	2027	8 to 12	9	1.50	18,188	18,188	52,533				29,619												
6.201	12,125	12,125	Square Feet	Concrete Deck, Total Replacement (Incl. Concrete Driveway)	2045	to 60	27	15.26	185,000	185,000	369,956													369,956			
6.300	5,720	5,720	Square Feet	Covers, Vinyl	2025	6 to 8	7	3.00	17,160	17,160	76,725								30,968								
6.400	780	780	Linear Feet	Fences, Aluminum	2036	to 25	18	39.00	30,420	30,420	48,285			48,285													
6.500	1	1	Allowance	Furniture	2029	to 12	11	63,000.00	63,000	63,000	197,245													113,692			

RESERVE EXPENDITURES

**Armfield Farm
Homeowners Association**
Chantilly, Virginia

Explanatory Notes:

- 1) **2.6%** 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)																	
6.560	5	5	Each	Light Poles and Fixtures	2023	to 25	5	1,600.00	8,000	8,000	26,400						9,100											
6.600	2	1	Allowance	Mechanical Equipment, Phased (Incl. Water Heater)	2020	to 15	2 to 9	11,000.00	11,000	22,000	61,875		11,579								13,859							
6.800	5,300	5,300	Square Feet	Pool Finishes, Plaster	2027	8 to 12	9	14.00	74,200	74,200	214,320										93,482							
6.801	840	840	Linear Feet	Pool Finishes, Tile	2037	15 to 25	19	42.00	35,280	35,280	57,455																	
6.870	4	2	Each	Shade Structures, Phased	2027	15 to 20	9 to 16	10,500.00	21,000	42,000	100,117										26,457							
6.900	5,300	5,300	Square Feet	Structures, Total Replacement	2045	to 60	27	150.00	795,000	795,000	1,589,812																	
6.980	1	1	Each	Water Slide, Plastic	2032	to 15	14	18,000.00	18,000	18,000	61,779															25,783		
Anticipated Expenditures, By Year											\$5,778,363	0	82,071	110,162	46,496	0	32,664	0	219,451	25,173	251,927	78,178	208,617	39,189	150,283	109,578	148,669	

RESERVE EXPENDITURES

**Armfield Farm
Homeowners Association**
Chantilly, Virginia

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)																
6.560	5	5	Each	Light Poles and Fixtures	2023	to 25	5	1,600.00	8,000	8,000	26,400																17,300
6.600	2	1	Allowance	Mechanical Equipment, Phased (Incl. Water Heater)	2020	to 15	2 to 9	11,000.00	11,000	22,000	61,875	16,586						19,851									
6.800	5,300	5,300	Square Feet	Pool Finishes, Plaster	2027	8 to 12	9	14.00	74,200	74,200	214,320				120,838												
6.801	840	840	Linear Feet	Pool Finishes, Tile	2037	15 to 25	19	42.00	35,280	35,280	57,455				57,455												
6.870	4	2	Each	Shade Structures, Phased	2027	15 to 20	9 to 16	10,500.00	21,000	42,000	100,117	31,665														41,995	
6.900	5,300	5,300	Square Feet	Structures, Total Replacement	2045	to 60	27	150.00	795,000	795,000	1,589,812															1,589,812	
6.980	1	1	Each	Water Slide, Plastic	2032	to 15	14	18,000.00	18,000	18,000	61,779															35,996	
Anticipated Expenditures, By Year											\$5,778,363	63,782	280,549	116,538	207,912	76,209	31,965	80,944	201,506	0	27,821	210,404	2,440,510	260,676	78,363	198,726	

RESERVE FUNDING PLAN

CASH FLOW ANALYSIS

Armfield Farm

Homeowners Association

Chantilly, Virginia

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
Reserves at Beginning of Year (Note 1)	174,705	259,268	309,491	335,566	429,720	575,896	695,246	853,298	796,553	938,705	858,627	956,548	928,822	1,075,829	1,117,734	1,205,941
Total Recommended Reserve Contributions (Note 2)	82,422	127,500	130,800	134,200	137,700	141,300	145,000	148,800	152,700	156,700	160,800	165,000	169,300	173,700	178,200	182,800
Plus Estimated Interest Earned, During Year (Note 3)	2,141	4,794	5,437	6,450	8,476	10,714	13,052	13,906	14,625	15,149	15,299	15,891	16,896	18,488	19,585	20,791
Less Anticipated Expenditures, By Year	0	(82,071)	(110,162)	(46,496)	0	(32,664)	0	(219,451)	(25,173)	(251,927)	(78,178)	(208,617)	(39,189)	(150,283)	(109,578)	(148,669)
Anticipated Reserves at Year End	<u>\$259,268</u>	<u>\$309,491</u>	<u>\$335,566</u>	<u>\$429,720</u>	<u>\$575,896</u>	<u>\$695,246</u>	<u>\$853,298</u>	<u>\$796,553</u>	<u>\$938,705</u>	<u>\$858,627</u>	<u>\$956,548</u>	<u>\$928,822</u>	<u>\$1,075,829</u>	<u>\$1,117,734</u>	<u>\$1,205,941</u>	<u>\$1,260,863</u>

(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
Reserves at Beginning of Year	1,260,863	1,407,168	1,342,292	1,446,761	1,465,999	1,623,731	1,834,211	2,004,420	2,061,685	2,328,991	2,578,835	2,654,943	489,637	492,438	685,806
Total Recommended Reserve Contributions	187,600	192,500	197,500	202,600	207,900	213,300	218,800	224,500	230,300	236,300	242,400	248,700	255,200	261,800	268,600
Plus Estimated Interest Earned, During Year	22,487	23,173	23,507	24,550	26,041	29,145	32,353	34,271	37,006	41,365	44,112	26,504	8,277	9,931	12,253
Less Anticipated Expenditures, By Year	(63,782)	(280,549)	(116,538)	(207,912)	(76,209)	(31,965)	(80,944)	(201,506)	0	(27,821)	(210,404)	(2,440,510)	(260,676)	(78,363)	(198,726)
Anticipated Reserves at Year End	<u>\$1,407,168</u>	<u>\$1,342,292</u>	<u>\$1,446,761</u>	<u>\$1,465,999</u>	<u>\$1,623,731</u>	<u>\$1,834,211</u>	<u>\$2,004,420</u>	<u>\$2,061,685</u>	<u>\$2,328,991</u>	<u>\$2,578,835</u>	<u>\$2,654,943</u>	<u>\$489,637</u>	<u>\$492,438</u>	<u>\$685,806</u>	<u>\$767,933</u>

(NOTE 5)

(NOTE 4)

Explanatory Notes:

- 1) Year 2018 starting reserves are as of May 31, 2018; FY2018 starts January 1, 2018 and ends December 31, 2018.
- 2) Reserve Contributions for 2018 are the remaining budgeted 7 months; 2019 is the first year of recommended contributions.
- 3) 1.7% is the estimated annual rate of return on invested reserves; 2018 is a partial year of interest earned.
- 4) Accumulated year 2048 ending reserves consider the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Year (reserve balance at critical point).

4. RESERVE COMPONENT DETAIL

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

Property Site Elements

Asphalt Pavement, Crack Repair, Patch and Seal Coat

Line Item: 4.020

Quantity: Approximately 1,850 square yards of asphalt pavement comprising a parking area at the pool house

History: Management informs us the Association last applied a seal coat and conducted repairs in 2013 and plans to apply a seal coat again in the near term

Condition: Good to fair overall with cracks and previous repairs evident

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 4.045

Quantity: Approximately 1,850 square yards of asphalt pavement comprising a parking area at the pool house

History: The parking area was milled and overlaid in 2007

Condition: Good to fair overall with cracks and previous repairs evident



Parking area overview



Parking area overview



Previous repairs evident



Pavement cracks



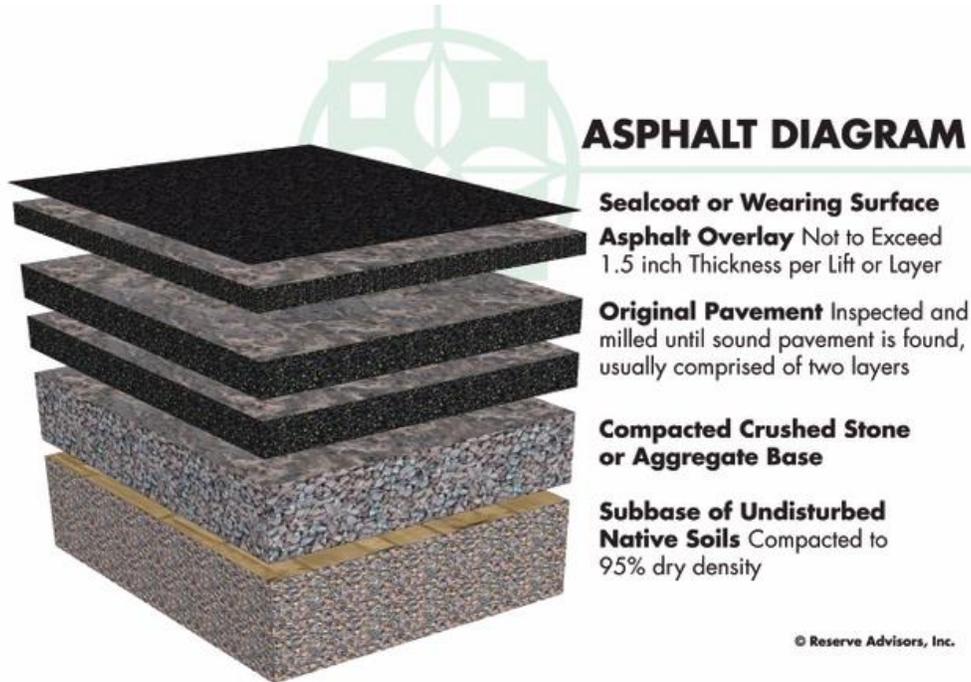
Pavement cracks



Pavement cracks

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 Armfield Farm:



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 total replacement method for initial repaving followed by the mill and overlay method for subsequent repaving at Armfield Farm.

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 fifteen percent (15%). Our estimates of cost also include allowances for capital repairs to the three catch basins at the parking area.

Asphalt Pavement, Repaving, Walking Paths

Line Item: 4.080

Quantity: 5,600 square yards of asphalt pavement walking paths throughout the community.

History: Management informs us that approximately 4,505 square yards of walking paths have been repaved since 2011. The Association plans to repave the remaining 1,095 square yards of pavement comprising the paths located north of Clary Sage Road that run between Centerville Road and Lees Corner Road

Condition: The paths at Clary Sage Road are in poor condition with extensive cracking and heave evident. The remaining paths are in good to fair overall condition with minor cracking evident.



Clary Sage path overview



Cracks and heave at Clary Sage path



Cracks and heave at Clary Sage path



Cracks and heave at Clary Sage path



Cracks and heave at Clary Sage path



Newer walking path



Pavement crack



Minor edge cracks

Useful Life: The need to maintain a safe pedestrian surface results in a useful life of 12- to 18-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 base our estimate of cost on conversations with the Board.

Basketball Courts, Color Coat

Line Items: 4.089 and 4.090

Quantity: 515 square yards of pavement comprising one basketball court at Springhaven Drive and 1,025 square yards of asphalt comprising two courts at Beech Down Drive

History: The Association last applied a color coat in at the Beach Down Drive courts in 2012. The Association replaced the surface at Springhaven Drive in 2013.

Condition: Fair overall with surface stains



Basketball court at Springhaven Drive



Surface stain



Basketball court at Beach Down Drive

Useful Life: Four- to six-years

Component Detail Notes: Prior to the application of the color coat, the Association should require the contractor to rout and fill all cracks with hot emulsion. This deters water infiltration and further deterioration of the asphalt playing surface.

Priority/Criticality: Not recommended to defer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We base our estimate of cost on conversations with the Board.

Basketball Courts, Fences

Line Item: 4.091

Quantity: 410 linear feet

History: Replaced within the last five years

Condition: Good overall



Chain link fence



Chain link fence

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.

Basketball Courts, Surface

Line Items: 4.092 and 4.093

Quantity: 1,540 square yards comprising one basketball court at Springhaven Drive and two at Beech Down Drive

History: The Association replaced the surface at the Springhaven Drive Court in 2012. The courts at Beach Down Drive are likely original.

Condition: The court at Springhaven Drive is in good to fair overall condition with cracks evident. The courts at Beach Down Drive are in poor overall condition with extensive cracking evident.



Crack at Springhaven Drive court



Cracks at Beach Down Drive court



Cracks at Beach Down Drive court



Cracks at Beach Down Drive court

Useful Life: Up to 25 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.

Bridge, Wood

Line Item: 4.101

Quantity: One wood bridge which comprise a total of 160 square feet at the walking path adjacent to Clary Sage Drive

History: Original

Condition: Fair overall condition with nail pop and wood deterioration evident



Wood bridge



Wood bridge



Nail pop and wood deterioration

Useful Life: 15- to 25-years with proper maintenance.

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. Proper maintenance should include the following activities funded through the operating budget:

- Annual inspections to identify and correct any unsafe conditions
- Securing of loose fasteners and replacement of deteriorated fasteners
- Replacement of deteriorated wood components
- Power washing with an algaecide and application of a sealer/stain

Concrete Curbs and Gutters

Line Item: 4.110

Quantity: 1,000 linear feet of curbs and gutters at the pool house parking area

Condition: Good to fair overall with cracks and heave evident



Curb and gutter crack



Curb and gutter crack



Curb and gutter heave

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

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We estimate that up to 350 linear feet of curbs and gutters, or thirty-five percent (35%) of the total, will require replacement during the next 30 years.

Concrete Sidewalks

Line Item: 4.140

Quantity: 3,755 square feet of sidewalks at the pool house. This quantity excludes the concrete driveway at the pool house which is included on Line Items 6.200 and 6.899 of **Reserve Expenditures**.

Condition: Varying from good to fair overall with cracks and trip hazards evident



Sidewalk cracks



Trip hazard



Sidewalk crack

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

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We estimate that up to 1,500 square feet of concrete sidewalks, or approximately forty percent (39.9%) of the total, will require replacement during the next 30 years.

Fences, Wood, Split Rail

Line Item: 4.286

Quantity: 250 linear feet primarily along the Clary Sage walking path

History: Unknown. Management informs us the Association plans to replace the fences in the near term.

Condition: Fair to poor overall with extensive erosion noted at the concrete footers. Management informs us the Association plans to re-set the fences further from the creek at the time of replacement.



Split rail fence



Split rail fence



Erosion at concrete footer

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 Association should anticipate periodic partial replacements funded through the operating budget due to the non-uniform nature of wood deterioration.

Irrigation System

Line Item: 4.420

Quantity: 12 zones serve the landscaped areas at the pool house

History: Installed in 1996

Condition: Good overall and Management does not report any deficiencies

Useful Life: Up to 40 years

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

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

Armfield Farm 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.

Playground Equipment

Line Items: 4.660 through 4.664

Locations, History and Conditions:

Location	Year of Replacement	Condition
Pool House	1999	Fair
Clary Sage Drive	2003	Fair
Springhaven Drive, North	2012	Good to fair

Springhaven Drive, South	2012	Good to fair
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Additionally, the Association maintains approximately 1,040 linear feet of timer borders at the playgrounds. Management informs us the Association plans to replace the borders in the near term.



Playground equipment at Clary Sage Drive



Playground equipment at Clary Sage Drive



Playground equipment at pool house



Rust and finish deterioration at pool house equipment



Playground equipment north of Springhaven Drive



Playground equipment north of Springhaven Drive



Playground equipment south of Springhaven Drive



Playground equipment south of Springhaven Drive

Useful Life: 15- to 20-years

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

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We base our estimate of cost for replacement of the playground equipment at the pool house on conversations with the Board. Additionally, we include an allowance in the unit cost for replacement of the safety surface.

Signage

Line Items: 4.800 through 4.803

Locations, Components and Conditions:

Location	Components	Condition
Centerville Road and Armfield Farm Drive	<ul style="list-style-type: none"> • Brick masonry • Metal light fixtures • Concrete signage 	Good to fair
Springhaven Drive and Lees Corner Road.	<ul style="list-style-type: none"> • Stone masonry • Site light fixtures • Composite signage 	Good to fair
Bellerose Drive and Lees Corner Road	<ul style="list-style-type: none"> • Brick masonry • Composite signage • Solar panel and light fixtures • Wood rail fences 	Fair
Bokel Drive and Lees Corner Road	<ul style="list-style-type: none"> • Brick masonry • Metal light fixtures • Composite signage • Wood picket fences • Well structure 	Good to fair

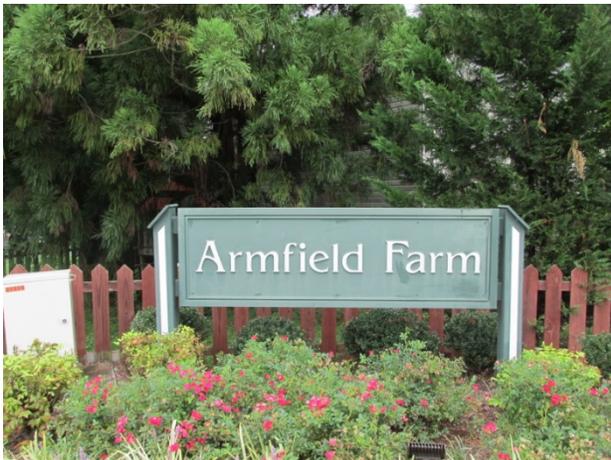
History: The composite signs at Springhaven Drive and Bokel Drive have been replaced within the last five years. Additionally, the fences at Bellerose Drive were recently replaced and the solar panel was installed in 2011. Management informs us the Association plans to replace the concrete signs at the Centerville Road entrance in 2019.



Bellerose Drive signage



Finish deterioration



Bokel Drive signage



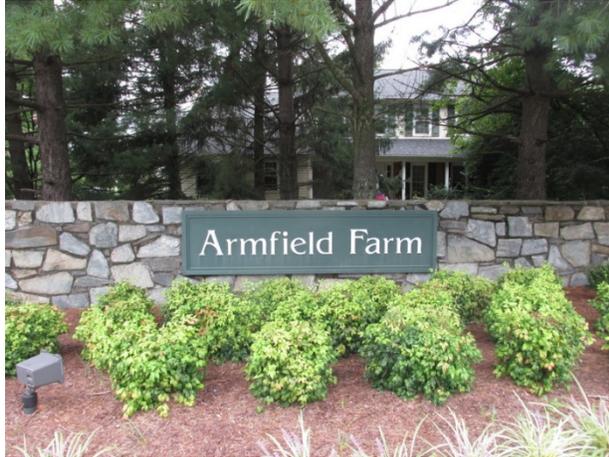
Well structure



Centerville Road signage



Lantern at Centerville Road entrance



Springhaven Drive entrance



Masonry displacement

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.

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost for renovation includes repointing and repairs to the masonry and replacement of the remaining components listed above. Our estimate of cost to for renovation at the Centerville Road entrance includes replacement of the concrete signs and is based on conversations with Management. Future renovations at the Centerville Road entrance include repairs to the concrete signs instead of replacement.

Tennis Courts, Color Coat

Line Item: 4.830

Quantity: 1,440 square yards comprising two tennis courts at the pool house

History: The Association last applied a color coat in 2015

Condition: Good to fair overall with minor stains evident



Tennis courts



Tennis courts

Useful Life: Four- to six-years

Component Detail Notes: Prior to the application of the color coat, the Association should require the contractor to rout and fill all cracks with hot emulsion. This deters water infiltration and further deterioration of the asphalt playing surface.

Priority/Criticality: Not recommended to defer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We base our estimate of cost on conversations with the Board.

Tennis Courts, Fence

Line Item: 4.840

Quantity: 460 linear feet

History: Replaced in 2013

Condition: Good overall



Tennis court fence and windscreen

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. Our estimate of cost includes an allowance for replacement of the windscreens. We recommend the Association fund interim replacements of the windscreens through the operating budget as needed.

Tennis Courts, Light Poles and Fixtures

Line Item: 4.850

Quantity: Eight each

History: Original. Management informs us the Association plans to replace the fixtures with LED (light-emitting diode) fixtures at the time of replacement.

Condition: Fair overall with rust and finish deterioration evident



Light pole and fixture



Rust and finish deterioration



Rust and finish deterioration

Useful Life: Up to 35 years

Priority/Criticality: Per Board discretion

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

Tennis Courts, Surface

Line Item: 4.860

Quantity: 1,440 square yards of asphalt comprising two tennis courts

History: The tennis court surfaces were last replaced in 2003

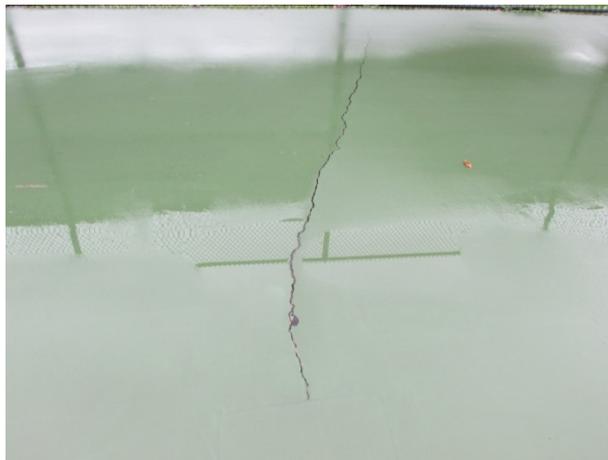
Condition: Good to fair overall with minor surface cracks evident



Surface cracks



Surface cracks



Surface cracks

Useful Life: Up to 25 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.

Pool House Elements



Front overview



Side overview



Partial rear overview

Doors

Line Item: 5.180

Quantity: 250 square feet

History: Original

Condition: Fair overall condition with rust evident. Management informs us the Association plans to replace the doors in the near term.



Entrance doors



Doors at pool house rear



Rust



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.

Interior Renovations

Line Item: 5.500

History: Management informs us the Association replaced the sinks, light fixtures, floor coatings and expanded the tile wall coverings in 2015

Condition: Good overall



Entryway overview



Rest room overview



Rest room overview



Rest room overview

Useful Life: Complete interior renovation every 20 years.

Component Detail Notes: The pool house interior comprises approximately 2,030 square feet of finished area which includes:

- Concrete coatings at the floors
- Tile wall coverings
- Paint finishes on portions of the walls and ceilings
- Plumbing fixtures and partitions
- Light fixtures including exit and emergency lights
- Countertops
- Furnishings including tables and chairs
- Various appliances including a refrigerator and freezer

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our estimate of cost includes replacement of the all the components listed above.

Roof Assembly, Asphalt Shingles

Line Item: 5.600

Quantity: 20 squares¹ including approximately 220 linear feet of aluminum gutters and downspouts, and a cupola.

History: The roof assembly was last replaced in 2009.

Condition: Good overall condition. Management does not report a history of leaks.



Asphalt shingle roof



Cupola



Aluminum gutter and downspout assembly

Useful Life: 15- to 20-years

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

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

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

Pool Elements



Main pool overview



Wading pool overview

Concrete Deck

Line Items: 6.200 and 6.201

Quantity: 12,125 square feet of concrete. This quantity includes the concrete driveway at the pool house.

History: The pool deck was totally replaced and expanded in 2017

Condition: Good overall

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

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

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

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

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

Covers, Vinyl

Line Item: 6.300

Quantity: 5,720 square feet

History: Replaced in 2017

Condition: Reported in good condition

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.

Fences, Aluminum

Line Item: 6.400

Quantity: 780 linear feet

History: The majority of the fences were replaced in 2011 and the fence was expanded in 2017

Condition: Good overall



Pool fence



Pool fence

Useful Life: Up to 25 years

Priority/Criticality: Not recommended to defer

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

Furniture

Line Item: 6.500

Quantity:

- Chairs
- Lounges
- Tables
- Ladders and life safety equipment

History: Replaced in 2017

Condition: Good overall

Useful Life: Up to 12 years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We base our estimate of cost on the Association's historic cost of replacement provided to us by Management. We recommend interim re-strapping, refinishing, cushion replacements, reupholstering and other repairs to the furniture as normal maintenance to maximize its useful life.

Light Poles and Fixtures

Line Item: 6.560

Quantity: Five metal poles with light fixtures

History: Original

Condition: Good to fair overall with isolated finish deterioration evident



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.

Mechanical Equipment

Line Item: 6.600

Quantity:

- Automatic chlorinators
- Controls
- Filters
- Interconnected pipe, fittings and valves
- Pumps
- Electrical panel
- Water heater (120 gallon)

History: Varying ages. The water heater was replaced in 2014 and the filters in 2010.

Condition: Reported satisfactory



Pool mechanical equipment



Water heater

Useful Life: Up to 15 years

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Failure of the pool mechanical equipment as a single event is unlikely. 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 and 6.801

Quantity: 5,300 square feet of plaster based on the horizontal surface area and approximately 840 linear feet of tile at the perimeter of the pool and the swim lanes

History: The plaster finish and tile were replaced in 2017

Condition: Good overall

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

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

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

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend the Association budget for full tile replacement every other plaster replacement event.

Shade Structure

Line Item: 6.870

Quantity: Four each

History: Two shade structures at the wading pool were installed in 2008 and two adjacent to the main pool were installed in 2016

Condition: Good overall



Shade structures at wading pool



Shade structures adjacent to main pool

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. We recommend the Association fund interim canvas replacement through the operating budget as needed.

Structures

Line Item: 6.900

Quantity: 5,300 square feet of horizontal surface area comprise the pool structures

History: The deck was totally replaced in 2017 and the pool structures are original

Conditions: Visually appear in good condition. The concrete floors and walls have a plaster finish. This finish makes it difficult to thoroughly inspect the concrete structures 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 Armfield Farm plan to replace the following components:

- Mechanical equipment
- Pool structures
- 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 Slide, Plastic

Line Item: 6.980

Quantity: One

History: Installed in 2018

Conditions: Good overall



Water slide

Useful Life: Replacement at up to 25 years and refinishing every 10- to 15-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- to three-years. Budgeting for an Update demonstrates the Board's objective to continue fulfilling its fiduciary responsibility to maintain the commonly owned property and to fund reserves appropriately.

5.METHODOLOGY

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

Armfield Farm can fund capital repairs and replacements in any combination of the following:

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

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

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

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

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

² See Credentials for 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 Armfield Farm 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



DIXON P. DRUMHELLER, RS
Responsible Advisor

CURRENT CLIENT SERVICES

Dixon P. Drumheller, a Senior Engineer, is an Advisor for Reserve Advisors. Mr. Drumheller is responsible for the inspection and analysis of the condition of clients' property, 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 Analysis and Capital Replacement Forecast services and the preparation of Reserve Study Reports for condominiums, townhomes and homeowner associations.

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

GrandView at Annapolis Towne Centre Condominium is a 13 story condominium building in Annapolis, Maryland built in 2009. The building includes 150 units and amenities such as a rooftop pool and Sky Lounge, exercise rooms and social rooms.

Red Hawk Lodge This upscale ski lodge located in Keystone, Colorado was built in 2000. The five-story condominium building includes 100 units and amenities such as a pool, fitness center and parking garage. The building is comprised of asphalt shingle roofs, and wood and fiber cement siding.

Shields Self Storage is a self-storage facility comprising eight different locations in Waynesboro, Virginia that was built between 1957 and 2016. Shields maintains 1,545 storage units as well as offices and a storage facility for tractor trailers and recreational vehicles.

The Henry Condominium A luxury residential property located in downtown Alexandria, Virginia, these five and six-story condominium buildings were built in 2007 and contain 168 units. The buildings include fitness and party rooms as well as rooftop terraces overlooking Washington D.C. The property also includes a controlled access, two level parking garage.

Bulle Rock Community Association This master association in Havre de Grace, Maryland comprises 1,900 single family homes and condominium units. The Association maintains various common elements including a 30,000 square foot clubhouse, indoor and outdoor pools, tennis courts, and extensive nature trails and walking paths.

The Country Club of Rochester One of the oldest golf clubs in America, the Country Club of Rochester was founded in 1895 in Rochester, New York. The current clubhouse was built in 1970 and amenities include 18 holes of golf, paddle tennis courts, a skating rink and tennis courts.

Mary Marshall Assisted Living Facility This property in Arlington, Virginia was built in the 1940's and converted to an assisted living facility in 2011. Mary Marshall comprises 52 units in one building. The facility includes kitchens, dining and community areas, offices and a library.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Mr. Drumheller attended James Madison University in Harrisonburg, Virginia where he attained his Bachelor of Science degree in Engineering with minors in Math and Business. His studies focused on environmental engineering and engineering design. Mr. Drumheller also worked as an intern for Property Capital Inc. where he advised on renewable energy projects and obtained real estate financing for clients.

EDUCATION

James Madison University - B.S. Engineering

PROFESSIONAL AFFILIATIONS

Reserve Specialist (RS) - Community Association Institute
Engineer in Training (E.I.T.)- State of Virginia



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

CURRENT CLIENT SERVICES

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

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

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

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

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

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

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

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

PRIOR RELEVANT EXPERIENCE

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

EDUCATION

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

PROFESSIONAL AFFILIATIONS/DESIGNATIONS

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

Reserve Specialist (RS) - Community Associations Institute

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



RESOURCES

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

Association of Construction Inspectors, (ACI) the largest professional organization for those involved in construction inspection and construction project management. ACI is also the leading association providing standards, guidelines, regulations, education, training, and professional recognition in a field that has quickly become important procedure for both residential and commercial construction, found on the web at www.iami.org. Several advisors and a Principal of Reserve Advisors, Inc. hold Senior Memberships with ACI.

American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., (ASHRAE) the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., devoted to the arts and sciences of heating, ventilation, air conditioning and refrigeration; recognized as the foremost, authoritative, timely and responsive source of technical and educational information, standards and guidelines, found on the web at www.ashrae.org. Reserve Advisors, Inc. actively participates in its local chapter and holds individual memberships.

Community Associations Institute, (CAI) America's leading advocate for responsible communities noted as the only national organization dedicated to fostering vibrant, responsive, competent community associations. Their mission is to assist community associations in promoting harmony, community, and responsible leadership.

Marshall & Swift / Boeckh, (MS/B) the worldwide provider of building cost data, co-sourcing solutions, and estimating technology for the property and casualty insurance industry found on the web at www.marshallswift.com.

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

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

7. DEFINITIONS

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

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

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

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

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

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

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

Long-Lived Property Component - Property component of Armfield Farm 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) Armfield Farm 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.