

# Reserve Study

## West Park Community Association

Section 25, Kings Park West  
Fairfax County, Virginia, USA



For Period Beginning:	January 1, 2017
Ending:	December 31, 2017
Date Prepared:	September 3, 2016

# Executive Summary

**Association:** West Park Community Association  
**Location:** Fairfax County, Virginia  
**Number of Lots:** 78  
**Report Period:** January 1, 2017 through December 31, 2017

## *Results*

<b>Projected Starting Reserve Balance:</b>	<b>\$10,000</b>
<b>Fully Funded Reserve Balance:</b>	<b>\$10,428</b>
<b>Percent Funded:</b>	<b>95.9%</b>
<b>Recommended 2017 Annual Reserve Contribution:</b>	<b>\$1,650</b>
<b>Recommended Special Assessment in 2017:</b>	<b>\$0</b>
<b>Most Recent Annual Reserve Contribution Rate:</b>	<b>\$1,400</b>

## *Economic Assumptions*

**Net Annual Interest Earnings Accruing to Reserves:** 0.1%  
**Annual Inflation Rate:** 1.02%

- The information in this Reserve Study is based on a site inspection performed on August 27, 2016
- Because the reserve fund percent funded is 95.9%, it has strong reserve fund strength.
- The multi-year funding plan is designed to keep the reserve fund strength strong while keeping the annual reserve contributions stable from year to year.
- The reserve projects anticipated for 2017 include repairing the paved asphalt path in the common area and repainting the swing set, jungle gym, and bench.

## **Introduction**

The purpose of this reserve study is to anticipate and prepare for major common area repair and replacement expenses. It involves projections and estimates in a process of research and analysis that uses well-defined methodologies.

This reserve study consists of two parts: the physical analysis and the financial analysis. The physical analysis contains the information about the current condition and repair or replacement cost of the major common area components that the Association is obligated to maintain. The financial analysis contains an evaluation of the Association's reserve balance (measured by percent funded) and a recommended funding plan to offset the anticipated reserve expenses.

The primary responsibility of the Board of Directors of West Park Community Association is to maintain, protect, and enhance the assets of the Association. As the physical assets age and deteriorate, it is important to accumulate financial assets, keeping the two in balance. Thus, this reserve study is a tool to help keep the physical and financial assets of the Association in balance.

This Reserve Study is a budget-planning document. The primary information in it includes a list of the major reserve components, an assessment of the current status (strength) of the Association's reserve fund, and a recommended funding plan. The basic objective of this reserve study is to provide a plan to collect funds at a stable annual rate to offset the predicted irregular reserve expenses. Setting a stable reserve contribution rate ensures that each owner pays their "fair share" of the resources needed to compensate for the gradual deterioration of the common area components.

This Reserve Study was developed by the West Park Community Association to comply with the provisions of § 55-514.1. (Reserves for capital components) of the Virginia Property Owners' Association Act. This statute requires a reserve study be conducted every five years with an annual review of the reserve study by the Association's Board of Directors. This represents the second reserve study ever prepared for the West Park Community Association. Its recommendations will lead to budgeting of specific reserves in the 2017 and subsequent annual Association budgets. The reserve study does not address additional regular maintenance costs to prolong the life of the components, which the Association will address in its annual budget.

## **Methodology**

The physical analysis occurs before the financial analysis by necessity. This means that the first step is to establish the projected expenses, then determine the Association's financial status in order to create a funding plan. It begins with a review of the Association's governing documents to confirm responsibilities. A review of historical expenditures related to components that are identified in this reserve study as reserve expenditures follows examining how these expenses have been handled in the past. This reserve study includes an on-site inspection to inventory (quantify and evaluate) the

common area to develop the reserve component list. The reserve component list contains a description and quantification of individual line items, estimates of useful life (when new), estimates of the remaining useful life, and the current replacement cost of each component. With this information and an assumed inflation rate, a projection of the future major expenses facing the Association follows for the period 2017-2046.

The Consumer Price Index–Urban (CPI-U) inflation rates for the Washington-Baltimore area published by Fairfax County in their FY 2017 Advertised Budget Plan Trends and Demographics document indicates a rate of 1.2%. This same rate is used for 2017 and all subsequent years in this study.

The reserve study uses certificate of deposits rates for interest earned. The current interest rate for a one-year certificate of deposit is 0.1%. This same interest rate is used throughout the 30-year period for this reserve study.

### ***Physical Assets Covered by Reserves***

Reserve expenses are the large, infrequent expenses that require significant advance planning. Ongoing maintenance expenses, on the other hand, are those ongoing daily, weekly, or monthly expenses that occur and recur throughout the year. The Association normally budgets for common area maintenance contingencies. If expenses arise that exceed the budgeting for normal maintenance contingencies, the Association will look to insurance, request that the members increase the budget on a one-time basis, or establish a special assessment.

There is a national standard that provides a four-part test to determine which expense items should be funded through Reserves.

1. The expense must be related to a legitimate common area maintenance responsibility
2. The component involved must have a limited life
3. The limited life of the component must be predictable
4. The expense must be above a minimum threshold

By this standard, reserve components are limited to predictable expenses. It is inappropriate to include unpredictable expenses such as damage due to fire, flood, or earthquake since these typically cannot be considered “reasonably predictable.”

### ***Useful Life and Remaining Useful Life***

Useful life is typically established by experience with the component, adjusted by assumptions for quality, rate of wear and tear, expected normal maintenance, and weather exposure. Remaining useful life is gauged primarily by the component’s current observed

condition. The observed age of the component may or may not equal the “chronological age” of the component due to accelerated wear or low usage. It is typical to obtain a recommendation for useful life and remaining useful life from vendors or other experts.

### ***Cost Estimating Methodology***

The best way to obtain an accurate cost for repair or replacement of a component is to evaluate actual historical costs as this provides valuable benchmarks from which to make current cost estimates. In absence of “actual” costs, estimates of cost must be used, but local vendors may provide key insights into the current pricing trends.

### ***Reserves Criteria***

The Association’s reserve balance based upon cash flow is one measure of reserves, but the true measure is whether the funds are adequate for the needs that actually arise. Therefore, reserve fund size is measured by percent funded, which is the actual (or projected) reserve balance divided by the Association’s calculated fully funded balance, expressed as a percentage. The fully funded balance is the current “value” of the deteriorated portion (not the total replacement value) of all the reserve components.

To show how this works with an example, in the case of a \$10,000 component with a 10-year Useful Life, in the third year the fully funded balance is three tenths of \$10,000, or \$3,000. The fully funded balance grows as assets age, but shrinks as components are replaced. The fully funded balance changes each year. Although it is predictable, fully funded balance is a moving target.

Special assessments and deferred maintenance are common when the percent funded is weak (below 30%). While the 100% point is ideal, a reserve fund above the 70% level is considered “strong” because cash flow problems are rare. Measuring reserves by percent funded expresses how well the Association is prepared for upcoming reserve expenses. An association with a strong reserve fund should experience smooth sailing financially, while an association with a weak reserve fund should expect cash flow problems. New buyers should be very aware of this important disclosure!

### ***Reserves Contributions***

There are four funding principles that must be balanced in developing a reserve-funding plan.

1. The objective is to design a plan that provides sufficient cash to perform reserve projects on time
2. A stable contribution rate is desirable because it indicates the Association is being run on a stable financial basis rather than being driven by arbitrary winds of change from year to year

3. It is important to evenly distribute the contributions over the years so each Association member pays their fair share of the reserve component maintenance and restoration costs in direct proportion to the amount of time they are members of the Association
4. Any funding plan must be based on fiscally responsible principles

The funding plan must be developed from different solutions and tested until one is found that most successfully meets all four of these principles to achieve the Association's funding goal.

### ***Funding Goal***

There are different funding goals to strive for, ranging from conservative to risky. Establishing a goal of simply having sufficient cash for all future years is called "baseline funding." The drawback is that there is little or no "margin for error," and expenses that are higher than budgeted or projects that occur earlier than planned will often cause a need for special assessments.

"Full funding" is when the Association has the goal of becoming fully funded (reserve balance equals the fully funded balance). Such an objective means the Association is following the simple and responsible principle that you "replace what you use up." Believing this to be the responsible choice, the funding plan in this reserve study is directed toward full funding. With this funding goal, West Park Community Association should enjoy low exposure to the risk of special assessments or deferred maintenance. Strong interest earnings obviously minimize reserve contributions, but the present economic environment offers little return in the form of interest. Regardless, it is best for the Association's physical and financial assets to be in balance. This provides an appropriate degree of insulation from claims of fiscal irresponsibility.

It is also possible to operate below a funding goal of threshold funding. This is where an objective higher than 0%, but less than 100% is selected to customize risk exposure. The decision to do this is dependent upon the risk tolerance of the Association's Board of Directors and other factors at a particular time as reflected in the budget that the members of the Association ultimately adopt.

### **Site Inspection and Reserve Component List**

The president of the Association and five other Association members performed a common area site inspection on August 27, 2016. The site inspection identified the reserve component list that follows and assessed the status of each component:

- Component #1, Asphalt Path. This is a 995 foot long, approximately 4 foot wide asphalt walking path that winds through the common area. It begins on Stallworth Court passing through a narrow strip of common area land between lots 70 and 71 (10438 Stallworth Court and 10440 Stallworth Court). The path leads southeast

toward the common area tot lot. Here is a picture of the most westerly starting point of the asphalt path.



From the tot lot, the asphalt path turns more toward the northeast emerging on Stallworth Court via a narrow strip of common area land between lots 57 and 58 (10412 Stallworth Court and 10414 Stallworth Court). Here is a picture of the most easterly ending point of the asphalt path.



Richmarr Corporation, the developer, built the asphalt path when the homes in Kings Park West, Section 25, were under construction in the 1982-1983 timeframe. Only limited path maintenance was performed over the years. In spite of this, the path has held up remarkably well.

The most recent patching and partial sealing of the asphalt path was completed by National Paving and Repair in September 2012 at a total cost of \$5,700. National Paving and Repair indicated that work should be performed again in five years. Gravel was added along the edges of some portions of the asphalt path in December 2015 to help reduce path erosion. The gravel work was performed under a Boy Scout eagle project. The cost of the gravel was \$232.

In spite of the age of the asphalt path and the limited maintenance it has received over the years, it is deemed in fairly good condition over most of its length. There are some sections that need attention. Weeds are growing through the cracks degrading the path surface in a very few areas. In one location, a fallen tree caused a dent in the asphalt surface that need to be patched.

After the repairs are completed, the path should be cleaned and a hot pour applied to the cracks. After a final cleaning, a seal coat should be applied to the entire path. This maintenance should put the path in good condition again for five years before this type of maintenance will be required again.



Normal maintenance should include cleaning cracks of debris and plant growth. In order to minimize erosion along the edges of the path, it is important to keep the dirt or stones next to the path up to and even with the path surface.

- Component #2, Swing Set. The swing set was installed by the developer, Richmarr Corporation, with the rest of the tot lot equipment in the 1982-1983 timeframe. The swing set is a commercial-grade, metal structure that is 15 feet wide and 9-1/2 feet tall. It includes one child seat and two regular seats. Here is a picture of it.



The swing seats and chains were replaced in 1999 by one of the Association's members using their own tools and funds. Under a Boy Scout eagle scout project, the top of the swing set was scraped and painted red. The inspection team observed that it is getting time to repaint the swing set, preferably in 2017. With normal maintenance and painting every five years, the swing set structure should have an additional lifetime in excess of 35 years.

- Component #3, Jungle Gym. The jungle gym was installed by the developer, Richmarr Corporation, with the rest of the tot lot equipment in the 1982-1983 timeframe. It is a very sturdy, professional model that is approximately 7 feet in diameter at the bottom and 9 feet tall as shown in the picture below.



The jungle gym is in good condition, but needs repainting soon, yet it is in better condition than the swing set. The jungle gym was most recently repainted as part of an Boy Scout eagle project in 2012. Repainting in 2017 is recommended. The

jungle gym was observed to be structurally sound during the site inspection. If painting is completed at least every five years, the jungle gym should have an additional lifetime of at least 35 years.

- Component #4, Slide. The slide was installed by the developer, Richmarr Corporation, with the rest of the tot lot equipment in the 1982-1983 timeframe. It is a very sturdy, professional model that rises 8 feet 3 inches high and has a stainless steel slide bed 16 feet long as shown in the picture below.



The slide has received very little maintenance over the nearly 30 years it has been in service. The site inspection found the slide to be structurally sound. There is a little rust on the upper supporting poles and under the top of the ladder, but this is a minor given the age of the slide. Some paint could be applied to cover the rust, but this is not really necessary. The slide should have an additional lifetime of at least 35 years.

- Component #5, Picnic Table 1. This heavy-duty, 6 foot long picnic table was installed by the developer, Richmarr Corporation, with the rest of the tot lot equipment in the 1982-1983 timeframe. The table is not anchored to the ground. The wood portions of the table were replaced in 2012 as part of a Boy Scout eagle project. The table was found in good condition by the site inspection team. Based on experience of having to perform no maintenance on the table for its first 30

years of service, the table should not need to be replaced for at least another 25 years. The picture of the table is shown below.



- Component #6, Picnic Table 2. This heavy-duty, 6 foot long picnic table was installed by the developer, Richmarr Corporation, with the rest of the tot lot equipment in the 1982-1983 timeframe. The table is not anchored to the ground. The wood portions of the table were replaced in 2012 as part of a Boy Scout eagle project. The table was found in good condition by the site inspection team. Based on experience of having to perform no maintenance on the table for its first 30 years of service, the table should not need to be replaced for at least another 25 years. The picture of the table is shown below.



- Component #7, Tot Lot Bench. A heavy-duty, 6 foot long bench was installed by the developer, Richmarr Corporation, with the rest of the tot lot equipment in the 1982-1983 timeframe. The bench is permanently mounted in the ground. It is composed of two metal tubes that support a board on the seat and another board on the back of the bench. The following is a picture of the bench.



The wood on the bench was replaced 2012 as part of a Boy Scout eagle project. The metal parts were painted red as the same time. The site inspection team found the bench in good condition, but recommended that the metal portions be repainted in 2017 and every five years thereafter. The wood portions could last 25 years, the remaining lifetime of the bench.

### **Projected Expenses**

Table 1 shows the schedule of near-term and future expenses faced by the Association for the reserve components described above in chronological order by component number and title. The costs shown are estimates. The expenses are projected a minimum of 30 years into the future, using the inflation rate shown in the Executive Summary.

**Table 1. Schedule of Expenses**

#	Component	Action	Year	Current Cost	Future Cost
1	Asphalt Path	Patching	2017	\$6,500	\$6,500
2	Swing Set	Repaint	2017	\$450	\$450
3	Jungle Gym	Repaint	2017	\$550	\$550
7	Tot Lot Bench	Repaint	2017	\$100	\$100
1	Asphalt Path	Patching	2022	\$6,500	\$7,177
2	Swing Set	Repaint	2022	\$450	\$497
3	Jungle Gym	Repaint	2022	\$550	\$607
7	Tot Lot Bench	Repaint	2022	\$100	\$110
1	Asphalt Path	Patching	2027	\$6,500	\$7,923
2	Swing Set	Repaint	2027	\$450	\$549
3	Jungle Gym	Repaint	2027	\$550	\$670
7	Tot Lot Bench	Replace Wood/Repaint	2027	\$200	\$244
1	Asphalt Path	Patching	2032	\$6,500	\$8,748
2	Swing Set	Repaint	2032	\$450	\$606
3	Jungle Gym	Repaint	2032	\$550	\$740
7	Tot Lot Bench	Repaint	2032	\$100	\$135
1	Asphalt Path	Patching	2037	\$6,500	\$9,659
2	Swing Set	Repaint	2037	\$450	\$669
3	Jungle Gym	Repaint	2037	\$550	\$817
7	Tot Lot Bench	Repaint	2037	\$100	\$149
1	Asphalt Path	Patching	2042	\$6,500	\$10,664
2	Swing Set	Repaint	2042	\$450	\$738
3	Jungle Gym	Repaint	2042	\$550	\$902
5	Picnic Table 1	Replace	2042	\$350	\$574
6	Picnic Table 2	Replace	2042	\$350	\$574
7	Tot Lot Bench	Repaint	2042	\$100	\$164
1	Asphalt Path	Patching	2047	\$6,500	\$11,774
2	Swing Set	Repaint	2047	\$450	\$815
3	Jungle Gym	Repaint	2047	\$550	\$996
7	Tot Lot Bench	Repaint	2047	\$100	\$181
2	Swing Set	Replace	2052	\$1,500	\$3,000
3	Jungle Gym	Replace	2052	\$2,200	\$4,400
4	Slide	Replace	2052	\$4,200	\$8,400
7	Tot Lot Bench	Replace	2052	\$850	\$1,700
Total				\$62,750	\$91,781

Since this is a projection about future events that may or may not take place as anticipated, there is more certainty about “near- term” projects than those many years away. While this reserve study is a one-year document, it involves a projection 30 years into the future.

## Reserve Fund Status and Funding Plan

Table 2 displays the reserve fund status and funding plan based upon the reserve projections in Table 1. The annual reserve contribution was selected to obtain the funding goal desired. This plan does not obligate the Association’s Board of Directors or the Association’s members to make any adjustment of the annual assessments, but the funding plan assumes a gradual increase of assessments over time to account primarily for inflation.

**Table 2. Reserve Fund Status and Funding Plan**

Year	Starting Reserve Balance	Fully Funded Balance	Percent Funded	Annual Reserve Contribution	Special Assessments	Interest Income	Reserve Expenses
2017	\$10,000	\$10,428	95.9%	\$1,650	\$0	\$10	\$7,600
2018	\$4,060	\$12,453	32.6%	\$1,650	\$0	\$4	\$0
2019	\$5,714	\$14,519	39.4%	\$1,650	\$0	\$6	\$0
2020	\$7,370	\$16,626	44.3%	\$2,050	\$0	\$7	\$0
2021	\$9,427	\$18,775	50.2%	\$2,050	\$0	\$9	\$0
2022	\$11,487	\$12,576	91.3%	\$2,050	\$0	\$11	\$8,391
2023	\$5,157	\$14,835	34.8%	\$2,300	\$0	\$5	\$0
2024	\$7,462	\$17,138	43.5%	\$2,300	\$0	\$7	\$0
2025	\$9,770	\$19,488	50.1%	\$2,300	\$0	\$10	\$0
2026	\$12,079	\$21,885	55.2%	\$2,550	\$0	\$12	\$0
2027	\$14,642	\$14,943	98.0%	\$2,550	\$0	\$15	\$9,386
2028	\$7,820	\$17,412	44.9%	\$2,550	\$0	\$8	\$0
2029	\$10,378	\$19,930	52.1%	\$2,550	\$0	\$10	\$0
2030	\$12,938	\$22,498	57.5%	\$2,550	\$0	\$13	\$0
2031	\$15,501	\$25,118	61.7%	\$2,550	\$0	\$16	\$0
2032	\$18,067	\$17,562	102.9%	\$2,550	\$0	\$18	\$10,229
2033	\$10,406	\$20,287	51.3%	\$2,550	\$0	\$10	\$0
2034	\$12,966	\$23,067	56.2%	\$2,800	\$0	\$13	\$0
2035	\$15,779	\$25,903	60.9%	\$2,800	\$0	\$16	\$0
2036	\$18,595	\$28,796	64.6%	\$2,800	\$0	\$19	\$0
2037	\$21,414	\$20,453	104.7%	\$2,800	\$0	\$21	\$11,293
2038	\$12,942	\$23,462	55.2%	\$2,800	\$0	\$13	\$0
2039	\$15,755	\$26,532	59.4%	\$2,800	\$0	\$16	\$0
2040	\$18,571	\$29,663	62.6%	\$2,800	\$0	\$19	\$0
2041	\$21,389	\$32,856	65.1%	\$3,050	\$0	\$21	\$0
2042	\$24,461	\$22,496	108.7%	\$3,050	\$0	\$24	\$13,617
2043	\$13,918	\$25,772	54.0%	\$3,050	\$0	\$14	\$0
2044	\$16,982	\$29,113	58.3%	\$3,050	\$0	\$17	\$0
2045	\$20,049	\$32,521	61.6%	\$3,050	\$0	\$20	\$0
2046	\$23,119	\$35,997	64.2%	\$3,050	\$0	\$23	\$0