

**Kings Park West
Community Association**

2015 Reserve Study

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1.0 INTRODUCTION

The Commonwealth of Virginia Statute §55-514.1, Reserves for Capital Components, requires that the Kings Park West Community Association (KPWCA) prepare a budget for reserves to include:

1. Current estimated replacement cost, remaining life and useful life of the capital assets;
2. Current amount of accumulated cash reserves set aside to repair, replace, or restore capital assets and expected contribution to the reserve fund for the fiscal year; and
3. General statement describing the estimation and accumulation of cash reserves procedures and how the association is funding its reserve obligations.

KPWCA consists of 580 single-family dwellings located in Fairfax, Virginia, in Sections 16 through 22 of the larger Kings Park West subdivision (Sections 1 through 22). Constructed in the mid to late 1970s, KPWCA has public streets and sidewalks maintained by the Virginia Department of Transportation. Common land owned by KPWCA is mostly natural habitat consisting of mature trees and flood plains. Amenities (common assets) include asphalt footpaths and concrete walkways providing access to the common land, and three masonry entrance walls/signs.

Within the common land, there are easements to the Colonial Pipeline Company, and Fairfax County Department of Public Works and Environmental Services for sanitary and storm sewer maintenance. Fairfax County maintains detention ponds located on the common land as well as maintenance of an asphalt path and concrete box culvert in Section 22.

A field investigation conducted in April 2016 found all asphalt and concrete walkways generally clean of debris. The common assets appeared to be in fair to excellent condition, except for one concrete walkway needing immediate attention.

The reserve study developed a schedule indicating the year of replacement and appropriate costs for each common asset. The study does not address additional maintenance costs to prolong the life of the structures, which the Association will address in its annual operations budget.

2.0 EVALUATION METHODOLOGY

Observation of the common assets revealed its condition and estimated remaining useful service life. The condition and assessment of the common assets, with photographic evidence, is included in this Report. See Tab A. However, the assessment was non-invasive with no destructive testing performed to uncover or expose any hidden conditions.

Commonly accepted references and experience with similar components installed in similar conditions is the basis for replacement costs, with opinions based on published construction cost data (2009 RSMeans Building Construction Cost Data adjusted for actual inflation) and professional experience. Actual construction costs can vary significantly, due to seasonal considerations, material availability, labor, and economy of scale; therefore, this is merely a guide for future financial planning.

3.0 FINANCIAL OVERVIEW

After being dormant for a number of years the Association reorganized in 2004; thereafter, KPWCA adopted a budget for reserve funds for the replacement of common assets. The Report includes the estimated cost to demolish, replace or repair common assets, interest earnings on the reserve account as well as inflation rates for calculating the future cost of construction. In 2010 the Board decided that certain assets would not be replaced at the end of their useful lives. Accordingly, the Report finds the following:

Abandon Certain Common Assets

In 2010, the Board approved a measure to replace and maintain the asphalt walkways (Robinson Middle/High School access), and maintain the masonry entrance walls/signs. However, concrete walkways will be demolished and replaced with sod at the end of their useful life, and the concrete stair sections at Tapestry Court and Bessmer Lane will be abandoned-in-place.

The 30-year study period projects total expenditures of \$58,618. Based on this projection and the current reserve fund balance, the suggested annual contribution to the reserves is \$1,000 beginning in 2016 and continuing through 2020. Starting in 2021 the annual contribution would increase to \$1,200 through 2028, increasing to \$1,400 for the remaining years; this would provide a projected total reserve set aside of \$55,216 plus interest income of \$3,446. See Tab B.

The condition assessment and reserve fund plan is a working tool for the Board for long-term planning and to inform Members of the condition and cost to maintain the Association's assets.

3.1 Significant Changes from 2010 Reserve Study

In the previous Report, the walkway at Catterick Ct. (Item 9.B) was scheduled for demolition and replacement with sod in 2016. Upon inspection, the walkway has been replaced with new concrete. It is unclear if the County or adjacent homeowners replaced the walkway, although a section of the County sidewalk adjacent to the HOA walkway was also replaced. Accordingly, costs for demolition and sodding for this asset have been removed from this year's report.

3.2 Accounting Methods

The reserve fund year-end balances and corresponding annual contributions was determined by setting a zero level balance in the fund computed after the anticipated expenditures. This method is typically referred to as the cash-flow method. Although in many instances it is preferred to have a minimum balance equal to a set percentage of the assets value, this report sets the minimum value at zero. The low value of the common assets does not require excess reserves and slight deviations in expenditures can be handled in the operating account.

3.3 Interest In on Reserve Funds

The reserve study uses certificate of deposits rates for interest earned. An interest rate of 0.70%, after taxes, has been estimated for the 30-year period.

3.4 Future Replacement and Repair Costs (Inflation)

The value of the replacement construction costs includes an adjustment for inflation. The Consumer Price Index –Urban (“CPI-U) inflation rates published by the Office of Management was used as the basis to calculate the future cost of construction. Moreover, construction inflation factors published by local Government agencies were used to adjust the CPI-U rates. The projected inflation rate for capital asset replacement for 2016 is 3.0%; 2017 is 4.7%; 2018 is 5.1%, 2019 is 4.7%; 2020 is 4.6%; and an estimated rate of 4.6% thereafter.

4.0 REPLACEMENT METHODS

The asphalt walkways at Robinson Middle/High School are scheduled for complete replacement at the end of their useful service life. The three masonry entrance walls/signs are scheduled for replacement of the brick mortar (repointing) at the end of their useful life; however the costs to repoint the brick for the Commonwealth/Zion walls is shown as 25% replacement every five years.

Replacement of walkways can be on a cyclical basis, with sections replaced in lieu of the entire sidewalk, but in KPWCA’s case, the length of walkways and paths do not lend to partial replacements. The existing concrete walkways will be demolished and replaced with sod at the end of their useful life. The concrete stairs will be abandoned-in-place, with appropriate warning signs posted at each set of stairs.

Construction industry standards provided a guideline for the useful service life of the components, which can vary greatly due to initial quality and installation, materials, maintenance practices, and local environment. By visual observation, the projected useful service life may be shortened or extended due to the present condition. The useful service life is a guideline for anticipating replacements and for accumulating reserve funds.

5.0 UPDATING THE RESERVE FUND

The Commonwealth of Virginia Statute §55-514.1, Reserves for Capital Components requires the KPWCA Board to:

1. Conduct a study once every five years to determine the necessity and amount of reserves required to repair, replace and restore the capital components;
2. Review the results of the study annually to determine if reserves are sufficient; and
3. Make any adjustments the Board of Directors deems necessary to maintain reserves, as appropriate.

6.0 MAINTENANCE

Routine maintenance will help extend the useful service life of the common assets; therefore, a suggested routine maintenance program is as follows:

6.1 Entrance Signs

Minor repointing is required on the back side of the C.1 entrance wall and also on the backside of the main Commonwealth/Twinbrook wall. The repointing is necessary to protect against freeze/thaw damage that could increase the localized area of repairs. An annual inspection of the brick walls should be performed with localized repointing as necessary to protect the structures and extend their useful life.

6.2 Asphalt Footpaths

Clean cracks of debris and plant growth and fill with a rubberized asphaltic compound every three to six years to prevent water infiltration. Applying asphalt seal coating can also further extend its useful service life.

7.0 ATTACHMENTS and NOTES:

7.1 Attachments

TAB A, Description and condition of common assets:

Property Description			Access Between		Structure	Condition	2015 Cost to Replace	2015 Cost to Demo/ Sod
Section 1	Outlot B,	0693 05 B1	Commonwealth	Twinbrook	Entrance sign - Brick/Masonry	Very Good	N/A	
Section 17	Outlot Z,	0684 09 Z	Commonwealth Blvd	Roberts Rd	Asphalt Concrete Walks	Good -Minor Cracking	\$ 1,296	
Section 17	Outlot Z,	0684 09 Z	Commonwealth Blvd	Roberts Rd	Asphalt Concrete Walks	Good -Minor Cracking	\$ 1,793	
Section 21	Parcel B,	0682 05 B	4914 Heversham Ct	4911 Heversham Ct	Concrete Walk	Very Good	\$ 3,600	\$ 2,115
Section 21	Parcel B,	0682 05 B	4790 Catterick Ct	4792 Catterick Ct	Concrete Walk	Excellent -Recently Replaced	\$ 3,505	\$ 1,864
Section 22	Parcel C,	0682 05 C	10152 Bessmer Ln	10150 Bessmer Ln	Concrete Walk	68 Ft. of walk very poor, Stairs and 4 Ft landing very good, Railing very good	\$ 6,398	\$ 1,639
Section 22	Parcel C,	0682 05 C	10158 Tapestry Ct	10160 Tapestry Ct	Concrete Walk	Concrete -Very Good, Railing Very Good	\$ 12,456	\$ 1,721
Section 22	Parcel D,	0682 05 D	None Public Access - Common Land					
Section 16	Lot 1182	0684 09	Easement		Entry Wall/Sign	Very Good	N/A	
Section 16	Lot 1184	0684 09	Easement		Entry Wall/Sign	Very Good	N/A	
Exclusive of Walls/Signs							\$ 29,048	\$ 7,339

Note: Replacement cost does not include entry wall/signs because the useful life exceeds 30 years. The cost to maintain and replace the mortar joints is included in the reserve study.

Item	Access Between		Structure	Normal Useful Service Life	Remaining Useful Service Life	Condition
A.1	Commonwealth Blvd	Roberts Rd	Asphalt Concrete Walks	10	6	Good -Minor Cracking
A	4914 Heversham Ct	4911 Heversham Ct	Concrete Walk	25	10	Very Good
B	4790 Catterick Ct	4792 Catterick Ct	Concrete Walk	25	25	Excellent - Recently Replaced
A	10152 Bessmer Ln	10150 Bessmer Ln	Concrete Walk	25	0	68 Ft. of walk very poor
A	10152 Bessmer Ln	10150 Bessmer Ln	Stairs	25	10	Stairs and 4 Ft landing very good
A	10152 Bessmer Ln	10150 Bessmer Ln	Railing	25	10	Railing very good
B.1	10158 Tapestry Ct	10160 Tapestry Ct	Concrete/Stairs	25	10	Concrete -Very Good
B.1	10158 Tapestry Ct	10160 Tapestry Ct	Railing	25	10	Railing very good
A	Commonwealth	Twinbrook	Entrance Sign- Brick Masonry	25	15	Very Good, Isolated area in need of repair
C.1	Easement		Entry Wall/Sign	25	5	Good, minor repairs needed 2016, plan on repairs to half of wall in 5 years
C.2	Easement		Entry Wall/Sign	25	5	Good, plan on repairs to half of wall in 5 years

TAB A, Photographs of Common Assets:

Property Description			Item	Access Between		Structure
Section 1	Outlot B,	0693 05 B1	A	Commonwealth Blvd	Twinbrook	Entrance sign - Brick/Masonry



Property Description			Item	Access Between		Structure
Section 17	Outlot Z,	0684 09 Z	A.1	Commonwealth Blvd	Roberts Rd	Asphalt Concrete Walks
Section 17	Outlot Z,	0684 09 Z	A.2	Commonwealth Blvd	Roberts Rd	Asphalt Concrete Walks



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Property Description			Item	Access Between		Structure
Section 21	Parcel A,	0682 05 A	B	4833 Gainsborough Dr	4835 Gainsborough Dr	Asphalt Concrete Walks Maintained by DPWES



Property Description			Item	Access Between		Structure
Section 21	Parcel B,	0682 05 B	A	4914 Heversham Ct	4911 Heversham Ct	Concrete Walk



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Property Description			Item	Access Between		Structure
Section 21	Parcel B,	0682 05 B	B	4790 Catterick Ct	4792 Catterick Ct	Concrete Walk



Property Description			Item	Access Between		Structure
Section 22	Parcel C,	0682 05 C	A	10152 Bessmer Ln	10150 Bessmer Ln	Concrete Walk



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Property Description			Item	Access Between		Structure
Section 22	Parcel C,	0682 05 C	B.1	10158 Tapestry Ct	10160 Tapestry Ct	Concrete Walk
Section 22	Parcel C,	0682 05 C	B.2	10158 Tapestry Ct	10160 Tapestry Ct	Concrete Walk



Property Description			Item	Access Between	Structure
Section 16	Lot 1182	0684 09 1182	C.1	Easement	Entry Wall/Sign -Mortar



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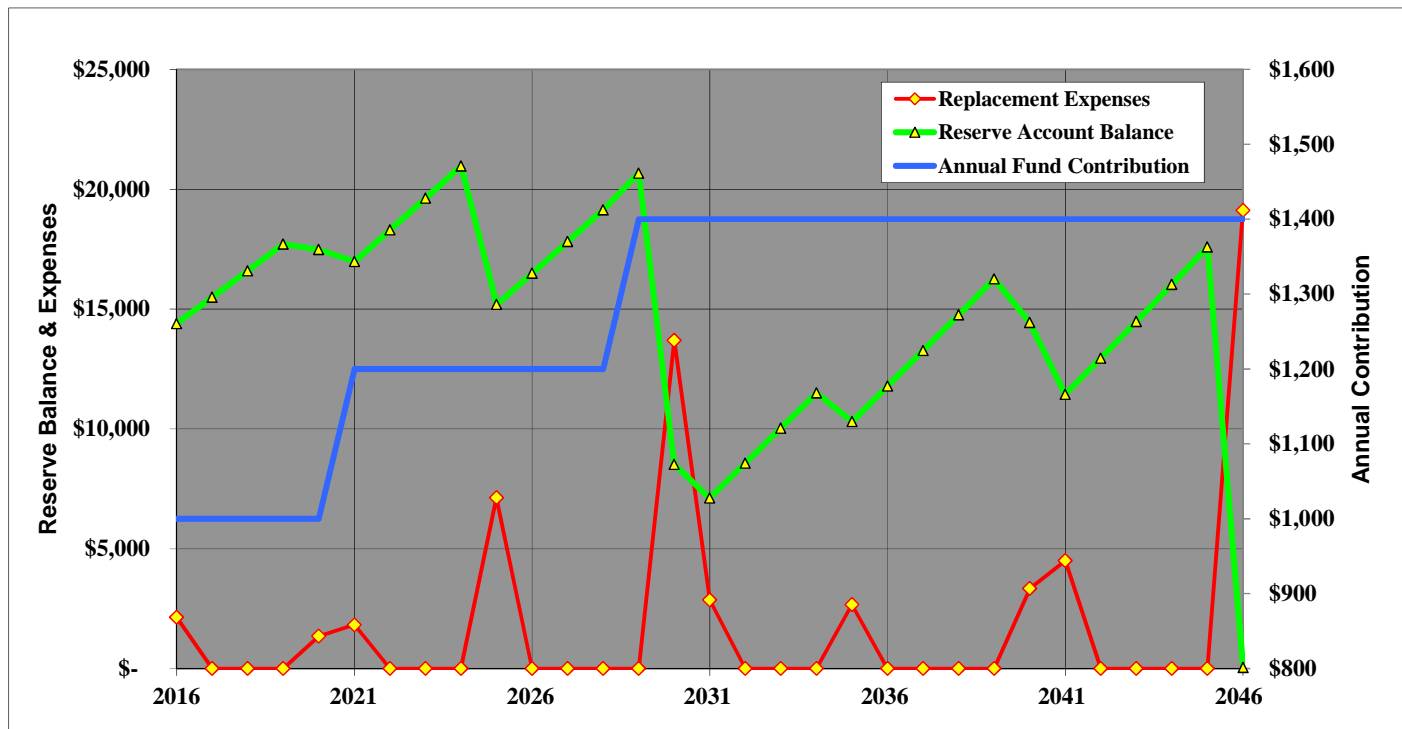
Property Description			Item	Access Between	Structure
Section 16	Lot 1184	0684 09 1184	C.2	Easement	Entry Wall/Sign -Mortar



TAB B, Cash flow analysis of expenditures, reserve funding and interest

	Replacement Expenses	Annual Fund Contribution	Interest	Reserve Account Balance
2015	\$ -		\$ -	\$ 15,416
2016	\$ 2,139	\$ 1,000	\$ 108	\$ 14,385
2017	\$ -	\$ 1,000	\$ 101	\$ 15,486
2018	\$ -	\$ 1,000	\$ 108	\$ 16,594
2019	\$ -	\$ 1,000	\$ 116	\$ 17,711
2020	\$ 1,354	\$ 1,000	\$ 124	\$ 17,481
2021	\$ 1,823	\$ 1,200	\$ 122	\$ 16,980
2022	\$ -	\$ 1,200	\$ 119	\$ 18,299
2023	\$ -	\$ 1,200	\$ 128	\$ 19,627
2024	\$ -	\$ 1,200	\$ 137	\$ 20,964
2025	\$ 7,121	\$ 1,200	\$ 147	\$ 15,190
2026	\$ -	\$ 1,200	\$ 106	\$ 16,496
2027	\$ -	\$ 1,200	\$ 115	\$ 17,812
2028	\$ -	\$ 1,200	\$ 125	\$ 19,137
2029	\$ -	\$ 1,400	\$ 134	\$ 20,671
2030	\$ 13,697	\$ 1,400	\$ 145	\$ 8,519
2031	\$ 2,864	\$ 1,400	\$ 60	\$ 7,115
2032	\$ -	\$ 1,400	\$ 50	\$ 8,564
2033	\$ -	\$ 1,400	\$ 60	\$ 10,024
2034	\$ -	\$ 1,400	\$ 70	\$ 11,495
2035	\$ 2,666	\$ 1,400	\$ 80	\$ 10,309
2036	\$ -	\$ 1,400	\$ 72	\$ 11,782
2037	\$ -	\$ 1,400	\$ 82	\$ 13,264
2038	\$ -	\$ 1,400	\$ 93	\$ 14,757
2039	\$ -	\$ 1,400	\$ 103	\$ 16,260
2040	\$ 3,341	\$ 1,400	\$ 114	\$ 14,433
2041	\$ 4,498	\$ 1,400	\$ 101	\$ 11,436
2042	\$ -	\$ 1,400	\$ 114	\$ 12,950
2043	\$ -	\$ 1,400	\$ 129	\$ 14,479
2044	\$ -	\$ 1,400	\$ 145	\$ 16,024
2045	\$ -	\$ 1,400	\$ 160	\$ 17,585
2046	\$ 19,116	\$ 1,400	\$ 176	\$ 44
	\$ 58,618	\$ 39,800	\$ 3,446	

Cumulative Cash Flow



7.2 Notes

- 1) In 2005, the Fairfax County DPWES acknowledged responsibility for repair and replacement of the asphalt path located in Section 21, Parcel A, Tax ID No, 0682-05-A.
- 2) In 2005, the Fairfax County Public Schools acknowledged they would share in the cost to repair and replace the asphalt paths in Section 17, Parcel Outlot Z, Tax ID No. 0684-09-Z. The Report has reduced the Association’s cost of replacement to 50% of the total anticipated replacement cost.