

CAPITAL RESERVE STUDY

FOR THE

Northbrook Community Association Common

Garnet Valley, Pennsylvania



Contact Name: Mr. Peter Matthews

Project Number: 15-0878
Date: July 13, 2016

Table of Contents

Section Name	Section #
Executive Summary.....	1
Reserve Study Disclosures.....	2
Introduction.....	3
Capital Reserve Methodology.....	4
Capital Reserve Calculation.....	5
Capital Reserve Recommendations.....	6
Component Narrative.....	7
Reserve Summary.....	8
Component Schedule.....	9
Component Detail.....	10
Disbursement Schedule.....	11
Reserve Fund Scenarios.....	12
Disbursements by Year.....	13
Reserve Fund Closing Balance.....	14
Reserve Fund Contributions.....	15
Definitions.....	16

Executive Summary

Northbrook is a 199 unit community association located in Garnet Valley, Pennsylvania. The community has 15 detached single family homes and 184 attached single family townhouses in 48 buildings. Access to the community is from Garnet Mine Road and Foulk Road.

All the units in the community are two story buildings constructed on concrete foundations. The roofs are covered with asphalt shingles and have aluminum gutters and leaders. The Association is NOT responsible for the roofs, gutters and leaders on the attached single family townhouses. [see note]

The roadways in the community are paved with asphalt and lined a concrete curb and sidewalks.

The storm runoff is collected at storm inlets located in the roadways and yards. The storm inlets are connected to underground storm water pipes that discharge the runoff to the two storm basins located in the community.

The community amenities include a playground and a a fitness path with exercise equipment.

Level of Service	Level I: New Study
Fiscal Year of Study	2016

Current Status of Reserve Fund (Component Method)

Current Balance	\$17,500
Fully Funded Balance	\$127,979
Percent Funded	13.67%

Reserve Budget Recommendations

	Prior Budget Year Contribution	Component Method *	5% Threshold *	10% Threshold *
Contribution/Year		\$26,996	\$16,322	\$18,953
Contribution/Unit	\$0	\$136	\$82	\$95
Contribution/Unit/Month	\$0	\$11	\$7	\$8

* Please note that this is the contribution for the period of July 2016 through June 2017.

Note: Corrected to read "NOT" responsible, as per legal determination.

Reserve Study Disclosures

General - Becht Engineering BT is not aware of any involvement with this Association, which would lead to an actual or perceived conflict of interest.

Physical Analysis - The inspections performed to determine the current physical condition of the common elements were visual in nature; no destructive testing or invasive inspections were performed. Quantities were taken from a combination of field counts/measurements and plan take-offs.

Personnel Credentials - Preparation of this Reserve Study was performed by a CAI designated Reserve Specialist and licensed Building Inspector.

Completeness - This Reserve Study assumes that proper preventative and corrective maintenance has been and will continue to be performed on the common elements. Failure to properly maintain the common elements may lead to premature failure. It should be noted that higher rates of inflation, lower earned interest rates or prematurely failing components can result in a negative closing cash balance. In addition, it is important to note that the capital fund contributions each year are assumed to rise at the assumed rate of inflation. Failure to raise the annual contributions with inflation will reduce the closing balance and may lead to a future shortfall.

Reliance on Client Data - This Reserve Study was prepared based on certain information provided by an official representative of the Association. This information includes the current asset balance of the Reserve Fund and the ages of the common elements and dates of most recent replacements.

Scope - This Reserve Study is a reflection of the information provided to us and assembled for the Association's use for budgeting purposes, not for the purpose of performing an audit, quality/forensic analysis or background checks of historical records. Interpretation of contradictions that may exist within the governing document's definition of common elements is not within the scope of this Study.

Reserve Balance - The actual and projected Reserve Fund Balance is based upon information provided by the Association and was not audited.

Component Quantities - Where this Reserve Study is an update of a previously prepared Study, the Association is considered to have deemed previously developed component listings and quantities as accurate and reliable.

Estimated Replacement Costs - Replacement costs are to be considered estimated projections of the cost to replace common elements in kind. These cost estimates are to be considered preliminary until such time as a project specific design or scope of work is developed. These costs can be affected by many variables including inflation, project scope and hidden damage conditions.

Reserve Projects - While the information provided in this Study is to be considered reliable, on-site inspections are not to be considered a project audit or quality inspection.

Introduction

The purpose of a Capital Reserve Study is to estimate the amount of money that must be funded annually to replace those common element components that will require replacement before the end of the effective life of the project.

Mortgage lenders recognize the conditions of inadequate reserves. Reserves are important in preserving the qualities of a particular complex or building and therefore can affect property values. Consequently, capital reserves are directly related to the security and risk of a lender's investment and the marketability of the property.

The Capital Reserve Study develops a recommended basic annual contribution based upon current replacement costs. Inflation may increase future costs unpredictably, and the accumulation of interest on the reserve fund deposits increases available funds. Accurate projection of these factors is not possible. However, the effects of inflation and interest are shown via cash flow projections using assumed inflation and interest rates. Accurate reserve funding requires regular updates. The Community Associations Institute recommends yearly reviews and a formal study every three years.

Capital Reserve Methodology

In preparing this study, when provided, we reviewed the master deed and offering statement to identify the common element components. The Association owns these building and site components. Only components with estimated remaining lives of 30 years or less have been included in the capital reserve fund. Components with estimated remaining lives that are greater than 30 years, such as building structures, piping and electrical wiring are usually replaced during a major renovation and financed at that time. Including these components in the reserve fund would result in an unrealistically high-recommended annual contribution to the capital reserve.

Quantities of the components to be included in the reserve fund were then determined by field measurements, as well as a review of building and site plans, if available.

Estimates of the costs to replace each component were derived from published industry standards, such as the R.S. Means Company cost-estimating guides and from our own experience in designing and supervising construction of similar projects. These cost estimates are to be considered preliminary until such time as a project specific design or scope of work is developed.

Finally, estimated remaining lives were determined for each of the included components based on the reported or evident present age, available industry data related to typical useful lives and the condition of the component, as determined by our physical inspection.

The capital reserve fund is not intended to cover annual maintenance. If maintenance items are included in the Capital Reserve Study, the tax status of the reserve fund can be jeopardized. However, expected lives are based on the assumption that proper annual maintenance is being performed. Therefore, this annual maintenance should be included in the Association's budget and maintenance fee. Without proper maintenance, accelerated deterioration can be expected, with shortened lives. Please note, it is only possible to reserve for future expenditures and that a current need must be financed separately by borrowing or assessments.

This Capital Reserve Study is developed as an aid in the proper financial planning of the Association. As such, the common element components included are evaluated for their physical condition and only for the purpose of estimating their remaining lives. Identification of possible deficient conditions is beyond the intent and scope of the Capital Reserve Study.

Capital Reserve Calculation

We have provided two Capital Reserve calculation methods as described below.

Component Method

The first method provided in this reserve study is what is known as the Component Method. This is the most conservative approach to calculating the reserve requirement. The Component Method analyzes each component individually and assumes that the money collected for each item will only be used to replace that item. Our program uses assumed rates of interest and inflation in the calculation of the annual contribution and fully funded balance. We compare the actual balance in the Association's Reserve Fund with the calculated fully funded balance and determine if a surplus or deficit condition exists. If a deficit condition exists, an additional contribution is calculated for each component to offset the deficit.

Threshold Funding Method

The second calculation method is known as the Threshold Funding Method. This method pools all the components and assumes that the money contributed to the fund is available for replacement of any item. Looking out over the next 30 years, the annual contribution is determined by lowering the contribution until the closing balance for any given year reaches a predetermined threshold. We typically provide two Threshold Method scenarios. These thresholds are based on a percentage of the current replacement cost of all the components in the Reserve Study. Basing the threshold on a percentage of the replacement cost of all components keeps the minimum proportional to the needs of a specific community.

This minimizes the annual contribution while maintaining a minimum closing balance. Determining the optimum minimum closing balance is a subjective task. Certainly, the lower the minimum acceptable balance is the greater the risk that the fund will experience a deficit. It should be noted that this method only considers Reserve Account balances over the next 30 years. Large capital expenditures just beyond the 30-year window will not be considered using this method until in the future they fall within the 30-year window.

Capital Reserve Recommendations

Northbrook Community Association Common has a total of 8 components in the reserve fund with a current Replacement Cost of \$368,688. Northbrook Community Association Common presently has a total of \$17,500 in the reserve fund. Using the Component Method, we have determined that the Basic Annual Contribution to the reserve fund should be \$18,877. The fully funded balance required is \$127,979. This leaves deficit of \$110,479 in the reserve fund. The deficit will be offset on an annual basis, for each reserve component, based on the estimated remaining lives. The total of the next budget year contribution to the Contribution Adjustment is \$8,119. This results in a Total Contribution to the reserve fund for the next budget year of \$26,996.

Based on your evaluation of the preferred calculation method, we suggest that you plan your annual contributions over the next few years according to the appropriate cash flow schedule. Each year for the next three years, you may choose to review these assumptions. At no later than three years, we suggest that you contact us for an update based on a proper engineering review of the facility and replacement costs.

It should be noted that higher rates of inflation, lower earned interest rates or prematurely failing components can result in a negative closing cash balance. In addition, it is important to note that the capital fund contributions each year are assumed to rise at the assumed rate of inflation. Failure to raise the annual contributions with inflation will reduce the closing balance.

We recommend that the Association review this Capital Reserve Study with their Certified Public Accountant to be utilized in the preparation of their annual budget.



Michael J. Barlow RS
Senior Project Manager
CAI Reserve Specialist #253



Component Narrative

Project Name: Northbrook Community Association Common
Project Location: Garnet Valley, Pennsylvania
Project Number: 15-0878
Date of Study: July 2016
Month Contributions Commence: July 2016

Interest Rate: 1.50%
Inflation Rate: 3.00%

Site

Description: Concrete Sidewalk, Common

Quantity: 8,600 SF **Cost Per Unit:** \$9.50
 Typical Life: 30

Replacement Cost: \$81,700
Est Rem Life: 23

Comment:

Surface scaling was observed on sections of the sidewalks. Scaling could be due to concrete that does not have the durability to withstand deicing chemicals.



Description: Fence, Metal Picket, Common

Quantity: 625 LF **Cost Per Unit:** \$33.50
 Typical Life: 25

Replacement Cost: \$20,938
Est Rem Life: 18



Component Narrative

Project Name: Northbrook Community Association Common
Project Location: Garnet Valley, Pennsylvania
Project Number: 15-0878
Date of Study: July 2016
Month Contributions Commence: July 2016

Interest Rate: 1.50%
Inflation Rate: 3.00%

Site

Description: Fence, Spilt Rail, Common

Quantity:	670 LF	Cost Per Unit:	\$15.00	Replacement Cost:	\$10,050
		Typical Life:	20	Est Rem Life:	13



Description: Fitness Equipment. Common

Quantity:	1 LS	Cost Per Unit:	\$30,000.00	Replacement Cost:	\$30,000
		Typical Life:	20	Est Rem Life:	13



Component Narrative

Project Name: Northbrook Community Association Common
Project Location: Garnet Valley, Pennsylvania
Project Number: 15-0878
Date of Study: July 2016
Month Contributions Commence: July 2016

Interest Rate: 1.50%
Inflation Rate: 3.00%

Site

Description: Playground Equipment

Quantity:	1 EA	Cost Per Unit:	\$40,000.00	Replacement Cost:	\$40,000
		Typical Life:	25	Est Rem Life:	18



Description: Storm Basin

Quantity:	1 LS	Cost Per Unit:	\$30,000.00	Replacement Cost:	\$30,000
		Typical Life:	20	Est Rem Life:	13



Component Narrative

Project Name: Northbrook Community Association Common
Project Location: Garnet Valley, Pennsylvania
Project Number: 15-0878
Date of Study: July 2016
Month Contributions Commence: July 2016

Interest Rate: 1.50%
Inflation Rate: 3.00%

Site

Description: Street Lights, Common

Quantity:	39 EA	Cost Per Unit:	\$2,000.00	Replacement Cost:	\$78,000
		Typical Life:	25	Est Rem Life:	18



Description: Wood Bridge, Common

Quantity:	6 EA	Cost Per Unit:	\$13,000.00	Replacement Cost:	\$78,000
		Typical Life:	20	Est Rem Life:	13



Capital Reserve Calculations

Reserve Summary

Project Name: Northbrook Community Association Common
 Project Location: Garnet Valley, Pennsylvania
 Project Number: 15-0878
 Date of Study: July 2016
 Month Contributions Commence: July 2016

Interest Rate: 1.50%
 Inflation Rate: 3.00%

Site	Replacement Cost	RESERVES			CONTRIBUTION		
		Present Fund	Required Fund	Surplus (Deficit)	Basic Annual	Adjustment*	Total
Site	\$368,688	\$17,500	\$127,979	(\$110,479)	\$18,877	\$8,119	\$26,996
TOTALS	\$368,688	\$17,500	\$127,979	(\$110,479)	\$18,877	\$8,119	\$26,996

Component Schedule

Project Name: Northbrook Community Association Common
 Project Location: Garnet Valley, Pennsylvania
 Project Number: 15-0878
 Date of Study: July 2016
 Month Contributions Commence: July 2016

Interest Rate: 1.50%
 Inflation Rate: 3.00%

Description	Replacement Cost	Est. Rem. Life	Typical Life	Basic Annual Contrib.	Percent Total	Present Fund	Required Fund	Surplus (Deficit)	Contrib. Adjustment
Site									
Concrete Sidewalk, Common	\$81,700	23	30	\$3,344	17.92%	\$3,137	\$22,940	(\$19,803)	\$1,036
Fence, Metal Picket, Common	\$20,938	18	25	\$1,015	5.39%	\$944	\$6,903	(\$5,959)	\$390
Fence, Spilt Rail, Common	\$10,050	13	20	\$597	3.14%	\$550	\$4,021	(\$3,471)	\$305
Fitness Equipment, Common	\$30,000	13	20	\$1,783	9.38%	\$1,641	\$12,002	(\$10,361)	\$911
Playground Equipment	\$40,000	18	25	\$1,939	10.30%	\$1,803	\$13,188	(\$11,385)	\$745
Storm Basin	\$30,000	13	20	\$1,783	9.38%	\$1,641	\$12,002	(\$10,361)	\$911
Street Lights, Common	\$78,000	18	25	\$3,780	20.09%	\$3,517	\$25,717	(\$22,200)	\$1,452
Wood Bridge, Common	\$78,000	13	20	\$4,636	24.38%	\$4,267	\$31,206	(\$26,939)	\$2,369
Totals	\$368,688			\$18,877	100.00%	\$17,500	\$127,979	(\$110,479)	\$8,119

The Association requested that components with a replacement cost of \$10,000 and less not be included in the reserve study.

Component Detail

Project Name: Northbrook Community Association Common
 Project Location: Garnet Valley, Pennsylvania
 Project Number: 15-0878
 Date of Study: July 2016
 Month Contributions Commence: July 2016

Interest Rate: 1.50%
 Inflation Rate: 3.00%

Site	Quantity	Replacement Cost	RESERVES			CONTRIBUTION		
			Present Fund	Required Fund	Surplus (Deficit)	Basic Annual	Adjustment*	Total
Concrete Sidewalk, Common	8,600 SF	\$81,700	\$3,137	\$22,940	(\$19,803)	\$3,344	\$1,036	\$4,380
Fence, Metal Picket, Common	625 LF	\$20,938	\$944	\$6,903	(\$5,959)	\$1,015	\$390	\$1,405
Fence, Spilt Rail, Common	670 LF	\$10,050	\$550	\$4,021	(\$3,471)	\$597	\$305	\$903
Fitness Equipment, Common	1 LS	\$30,000	\$1,641	\$12,002	(\$10,361)	\$1,783	\$911	\$2,694
Playground Equipment	1 EA	\$40,000	\$1,803	\$13,188	(\$11,385)	\$1,939	\$745	\$2,683
Storm Basin	1 LS	\$30,000	\$1,641	\$12,002	(\$10,361)	\$1,783	\$911	\$2,694
Street Lights, Common	39 EA	\$78,000	\$3,517	\$25,717	(\$22,200)	\$3,780	\$1,452	\$5,232
Wood Bridge, Common	6 EA	\$78,000	\$4,267	\$31,206	(\$26,939)	\$4,636	\$2,369	\$7,005
TOTALS		\$368,688	\$17,500	\$127,979	(\$110,479)	\$18,877	\$8,119	\$26,996

Disbursement Schedule

Project Name: Northbrook Community Association Common
 Project Location: Garnet Valley, Pennsylvania
 Project Number: 15-0878
 Date of Study: July 2016
 Month Contributions Commence: July 2016

Interest Rate: 1.50%
 Inflation Rate: 3.00%

Year	Description	Base Cost	Future Replacement Cost
2029			
	Fence, Spilt Rail, Common	\$10,050	\$14,759
	Fitness Equipment. Common	\$30,000	\$44,056
	Storm Basin	\$30,000	\$44,056
	Wood Bridge, Common	\$78,000	\$114,546
		\$148,050	\$217,416
2034			
	Fence, Metal Picket, Common	\$20,938	\$35,645
	Playground Equipment	\$40,000	\$68,097
	Street Lights, Common	\$78,000	\$132,790
		\$138,938	\$236,532
2039			
	Concrete Sidewalk, Common	\$81,700	\$161,242
		\$81,700	\$161,242

Reserve Fund Scenario

Project Name: Northbrook Community Association Common
 Project Location: Garnet Valley, Pennsylvania
 Project Number: 15-0878
 Date of Study: July 2016
 Month Contributions Commence: Julv 2016

Calculation Method: Component

Interest Rate: 1.50%
 Inflation Rate: 3.00%

Year	Opening Balance	Annual Contribution	Contribution Adjustment	Disbursements	Earned Interest	Closing Balance
2016	\$17,500	\$18,877	\$8,119	\$0	\$482	\$44,978
2017	\$44,978	\$19,443	\$8,363	\$0	\$901	\$73,685
2018	\$73,685	\$20,027	\$8,613	\$0	\$1,338	\$103,663
2019	\$103,663	\$20,628	\$8,872	\$0	\$1,795	\$134,957
2020	\$134,957	\$21,246	\$9,138	\$0	\$2,271	\$167,612
2021	\$167,612	\$21,884	\$9,412	\$0	\$2,768	\$201,677
2022	\$201,677	\$22,540	\$9,694	\$0	\$3,287	\$237,199
2023	\$237,199	\$23,217	\$9,985	\$0	\$3,828	\$274,228
2024	\$274,228	\$23,913	\$10,285	\$0	\$4,391	\$312,817
2025	\$312,817	\$24,630	\$10,593	\$0	\$4,978	\$353,020
2026	\$353,020	\$25,369	\$10,911	\$0	\$5,590	\$394,890
2027	\$394,890	\$26,130	\$11,239	\$0	\$6,227	\$438,486
2028	\$438,486	\$26,914	\$11,576	\$0	\$6,890	\$483,866
2029	\$483,866	\$27,722	\$5,320	\$217,416	\$7,526	\$307,018
2030	\$307,018	\$28,553	\$5,480	\$0	\$4,882	\$345,934
2031	\$345,934	\$29,410	\$5,644	\$0	\$5,474	\$386,462
2032	\$386,462	\$30,292	\$5,814	\$0	\$6,090	\$428,658
2033	\$428,658	\$31,201	\$5,988	\$0	\$6,732	\$472,580
2034	\$472,580	\$32,137	\$1,764	\$236,532	\$7,364	\$277,313
2035	\$277,313	\$33,101	\$1,817	\$0	\$4,443	\$316,675
2036	\$316,675	\$34,094	\$1,871	\$0	\$5,042	\$357,682
2037	\$357,682	\$35,117	\$1,927	\$0	\$5,666	\$400,393
2038	\$400,393	\$36,171	\$1,985	\$0	\$6,316	\$444,865
2039	\$444,865	\$37,256	\$0	\$161,242	\$6,976	\$327,854
2040	\$327,854	\$38,373	\$0	\$0	\$5,230	\$371,457
2041	\$371,457	\$39,525	\$0	\$0	\$5,893	\$416,875
2042	\$416,875	\$40,710	\$0	\$0	\$6,584	\$464,169
2043	\$464,169	\$41,932	\$0	\$0	\$7,303	\$513,404
2044	\$513,404	\$43,190	\$0	\$0	\$8,052	\$564,645
2045	\$564,645	\$44,485	\$0	\$0	\$8,831	\$617,962
2046	\$617,962	\$45,820	\$0	\$0	\$9,642	\$673,423

Reserve Fund Scenario

Project Name: Northbrook Community Association Common
Project Location: Garnet Valley, Pennsylvania
Project Number: 15-0878
Date of Study: July 2016
Month Contributions Commence: Julv 2016

Calculation Method: 5% of Rep. Cost
Minimum Balance: \$18,434
Interest Rate: 1.50%
Inflation Rate: 3.00%

Year	Opening Balance	Annual Contribution	Contribution Adjustment	Disbursements	Earned Interest	Closing Balance
2016	\$17,500	\$16,322	\$0	\$0	\$395	\$34,217
2017	\$34,217	\$16,812	\$0	\$0	\$650	\$51,679
2018	\$51,679	\$17,316	\$0	\$0	\$916	\$69,911
2019	\$69,911	\$17,835	\$0	\$0	\$1,194	\$88,940
2020	\$88,940	\$18,370	\$0	\$0	\$1,483	\$108,793
2021	\$108,793	\$18,921	\$0	\$0	\$1,786	\$129,500
2022	\$129,500	\$19,489	\$0	\$0	\$2,101	\$151,090
2023	\$151,090	\$20,074	\$0	\$0	\$2,429	\$173,593
2024	\$173,593	\$20,676	\$0	\$0	\$2,772	\$197,041
2025	\$197,041	\$21,296	\$0	\$0	\$3,129	\$221,466
2026	\$221,466	\$21,935	\$0	\$0	\$3,500	\$246,901
2027	\$246,901	\$22,593	\$0	\$0	\$3,887	\$273,381
2028	\$273,381	\$23,271	\$0	\$0	\$4,290	\$300,942
2029	\$300,942	\$23,969	\$0	\$217,416	\$4,709	\$112,204
2030	\$112,204	\$24,688	\$0	\$0	\$1,884	\$138,776
2031	\$138,776	\$25,429	\$0	\$0	\$2,288	\$166,493
2032	\$166,493	\$26,192	\$0	\$0	\$2,710	\$195,395
2033	\$195,395	\$26,978	\$0	\$0	\$3,150	\$225,523
2034	\$225,523	\$27,787	\$0	\$236,532	\$3,609	\$20,387
2035	\$20,387	\$28,621	\$0	\$0	\$538	\$49,546
2036	\$49,546	\$29,480	\$0	\$0	\$983	\$80,009
2037	\$80,009	\$30,364	\$0	\$0	\$1,447	\$111,820
2038	\$111,820	\$31,275	\$0	\$0	\$1,931	\$145,026
2039	\$145,026	\$32,213	\$0	\$161,242	\$2,437	\$18,434
2040	\$18,434	\$33,179	\$0	\$0	\$546	\$52,159
2041	\$52,159	\$34,174	\$0	\$0	\$1,060	\$87,393
2042	\$87,393	\$35,199	\$0	\$0	\$1,597	\$124,189
2043	\$124,189	\$36,255	\$0	\$0	\$2,157	\$162,601
2044	\$162,601	\$37,343	\$0	\$0	\$2,742	\$202,686
2045	\$202,686	\$38,463	\$0	\$0	\$3,353	\$244,502
2046	\$244,502	\$39,617	\$0	\$0	\$3,989	\$288,108

Reserve Fund Scenario

Project Name: Northbrook Community Association Common
 Project Location: Garnet Valley, Pennsylvania
 Project Number: 15-0878
 Date of Study: July 2016

Calculation Method: 10% of Rep. Cost
 Minimum Balance: \$36,869
 Interest Rate: 1.50%
 Inflation Rate: 3.00%

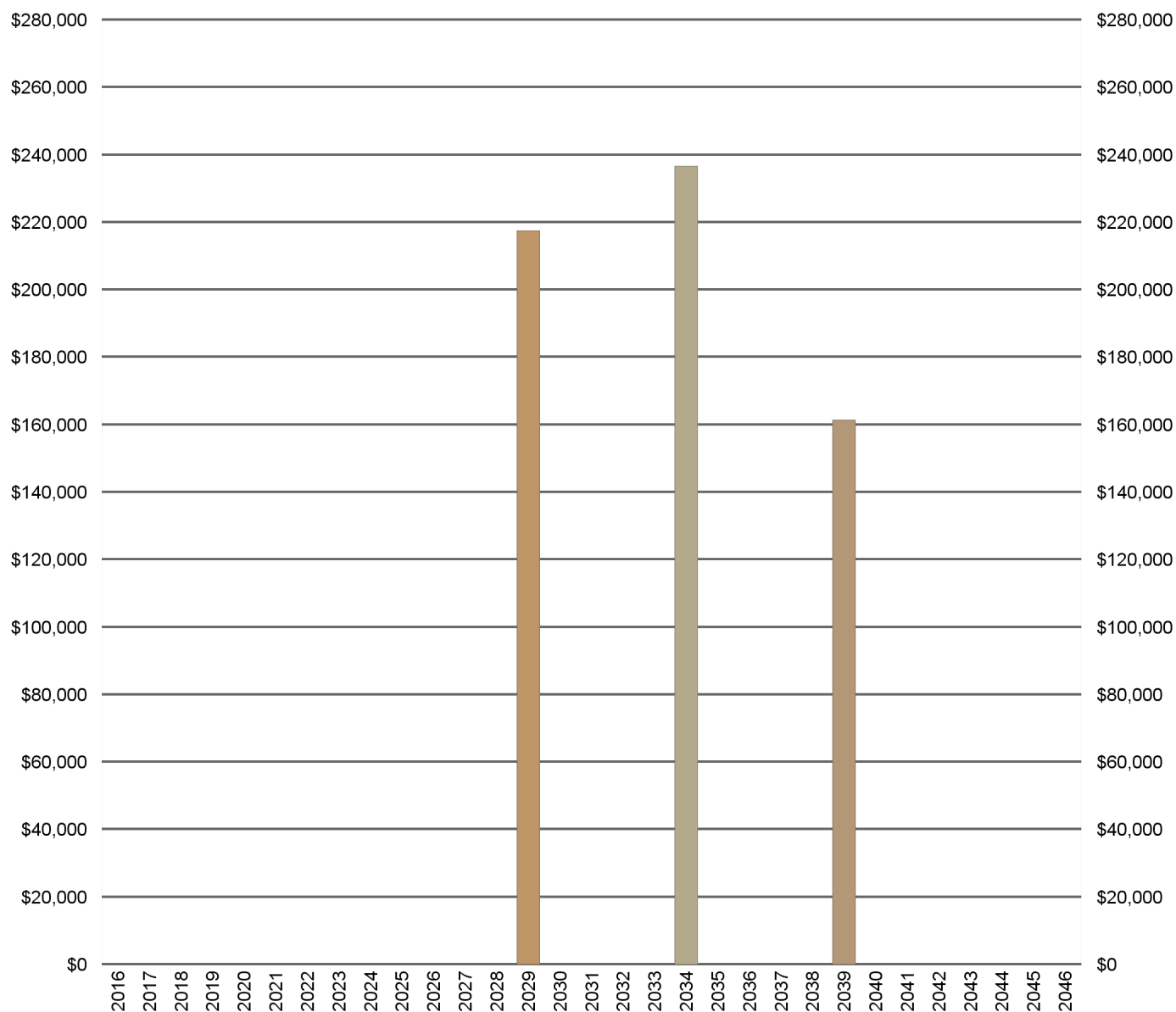
Month Contributions Commence: Julv 2016

Year	Opening Balance	Annual Contribution	Contribution Adjustment	Disbursements	Earned Interest	Closing Balance
2016	\$17,500	\$18,953	\$0	\$0	\$416	\$36,869
2017	\$36,869	\$19,522	\$0	\$0	\$712	\$57,103
2018	\$57,103	\$20,108	\$0	\$0	\$1,020	\$78,231
2019	\$78,231	\$20,711	\$0	\$0	\$1,342	\$100,284
2020	\$100,284	\$21,332	\$0	\$0	\$1,678	\$123,294
2021	\$123,294	\$21,972	\$0	\$0	\$2,028	\$147,294
2022	\$147,294	\$22,631	\$0	\$0	\$2,393	\$172,318
2023	\$172,318	\$23,310	\$0	\$0	\$2,774	\$198,402
2024	\$198,402	\$24,009	\$0	\$0	\$3,171	\$225,582
2025	\$225,582	\$24,729	\$0	\$0	\$3,585	\$253,896
2026	\$253,896	\$25,471	\$0	\$0	\$4,015	\$283,382
2027	\$283,382	\$26,235	\$0	\$0	\$4,464	\$314,081
2028	\$314,081	\$27,022	\$0	\$0	\$4,931	\$346,034
2029	\$346,034	\$27,833	\$0	\$217,416	\$5,417	\$161,868
2030	\$161,868	\$28,668	\$0	\$0	\$2,661	\$193,197
2031	\$193,197	\$29,528	\$0	\$0	\$3,138	\$225,863
2032	\$225,863	\$30,414	\$0	\$0	\$3,635	\$259,912
2033	\$259,912	\$31,326	\$0	\$0	\$4,153	\$295,391
2034	\$295,391	\$32,266	\$0	\$236,532	\$4,693	\$95,818
2035	\$95,818	\$33,234	\$0	\$0	\$1,707	\$130,759
2036	\$130,759	\$34,231	\$0	\$0	\$2,240	\$167,230
2037	\$167,230	\$35,258	\$0	\$0	\$2,795	\$205,283
2038	\$205,283	\$36,316	\$0	\$0	\$3,374	\$244,973
2039	\$244,973	\$37,405	\$0	\$161,242	\$3,979	\$125,115
2040	\$125,115	\$38,527	\$0	\$0	\$2,190	\$165,832
2041	\$165,832	\$39,683	\$0	\$0	\$2,810	\$208,325
2042	\$208,325	\$40,873	\$0	\$0	\$3,457	\$252,655
2043	\$252,655	\$42,099	\$0	\$0	\$4,132	\$298,886
2044	\$298,886	\$43,362	\$0	\$0	\$4,836	\$347,084
2045	\$347,084	\$44,663	\$0	\$0	\$5,569	\$397,316
2046	\$397,316	\$46,003	\$0	\$0	\$6,334	\$449,653

Disbursements by Year

Project Name: Northbrook Community Association Common
 Project Location: Garnet Valley, Pennsylvania
 Project Number: 15-0878
 Date of Study: July 2016

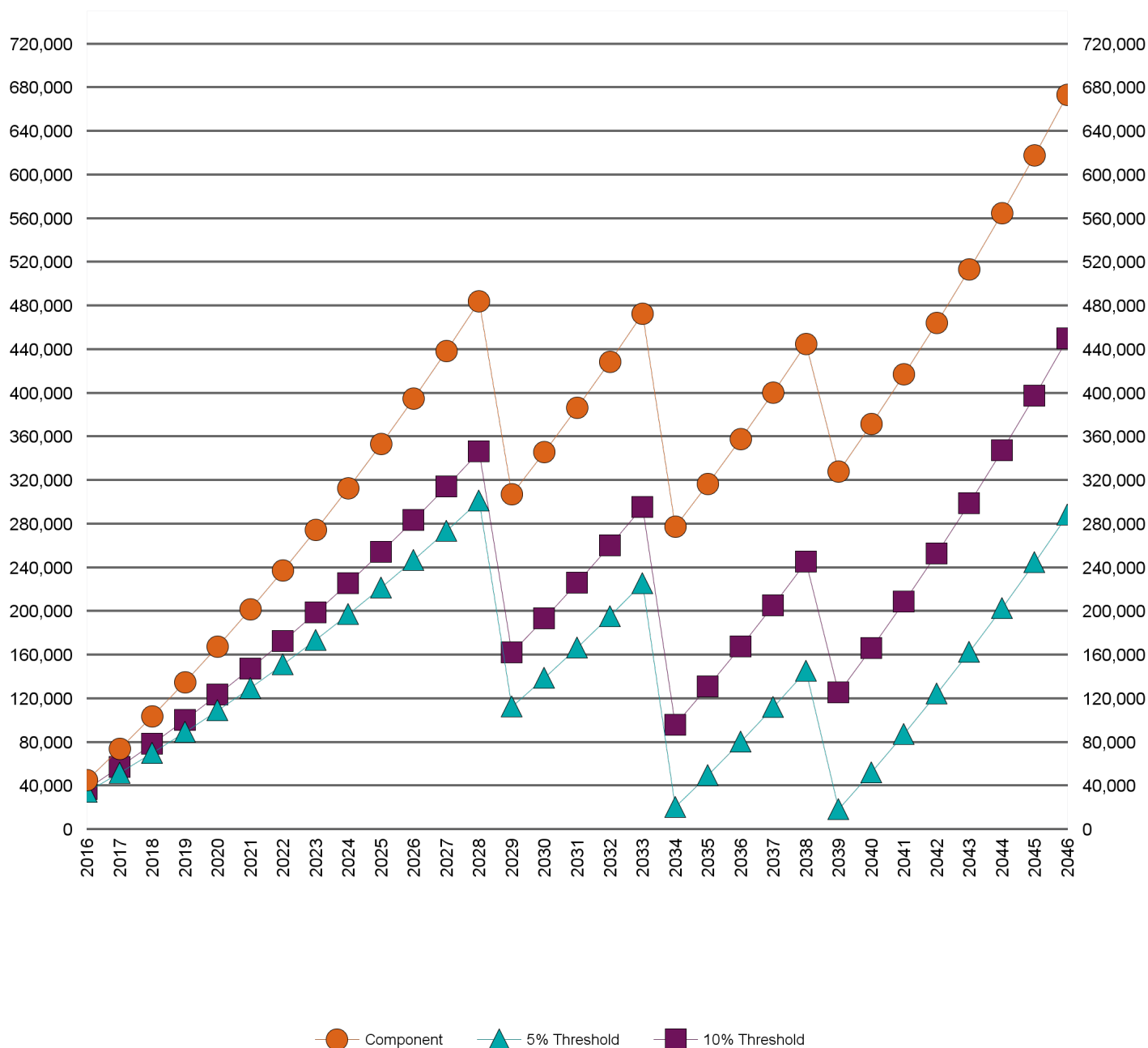
Interest Rate: 1.50%
 Inflation Rate: 3.00%



Reserve Fund Closing Balance

Project Name: Northbrook Community Association Common
 Project Location: Garnet Valley, Pennsylvania
 Project Number: 15-0878
 Date of Study: July 2016

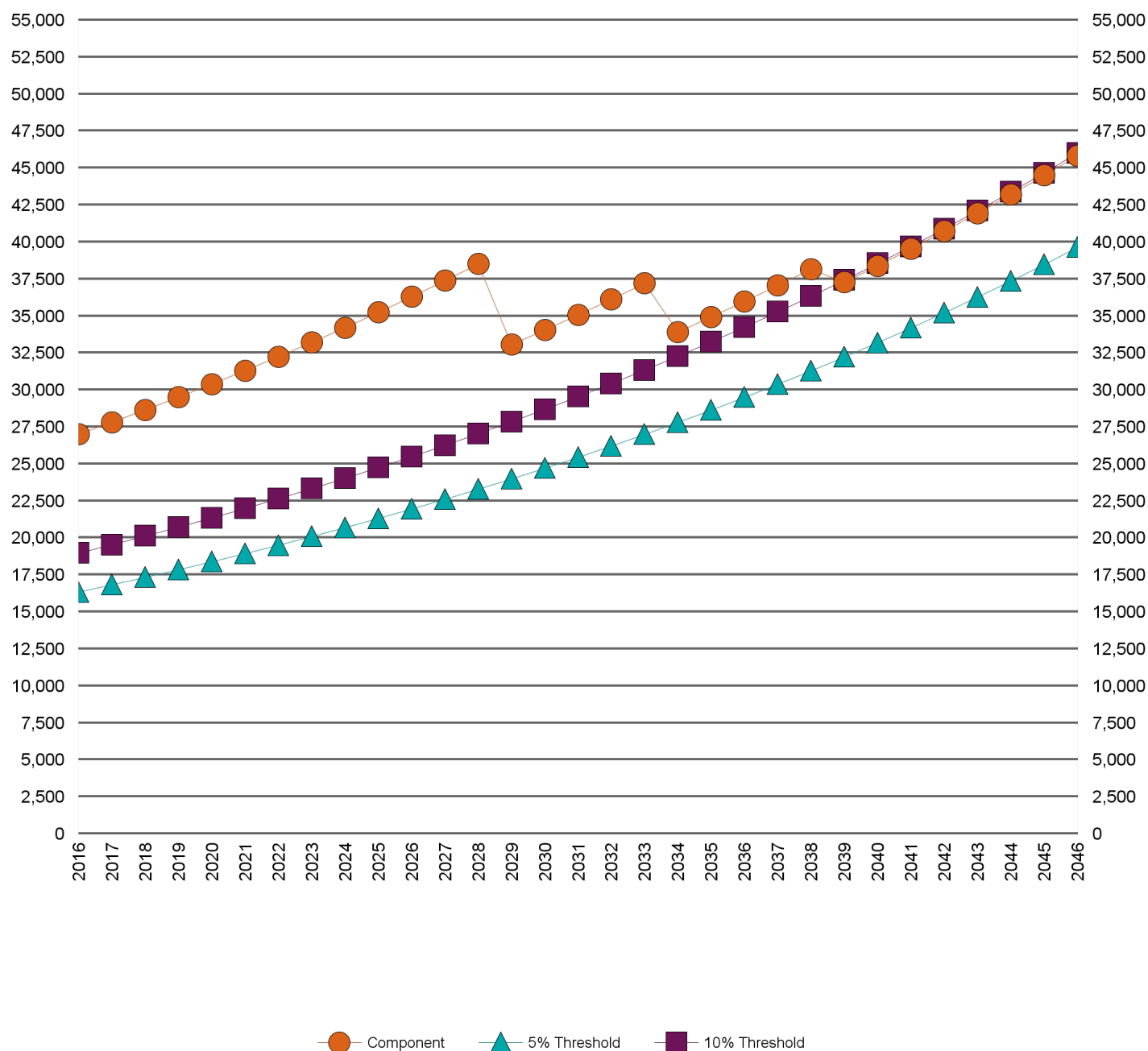
Interest Rate: 1.50%
 Inflation Rate: 3.00%



Reserve Fund Contributions

Project Name: Northbrook Community Association Common
 Project Location: Garnet Valley, Pennsylvania
 Project Number: 15-0878
 Date of Study: July 2016

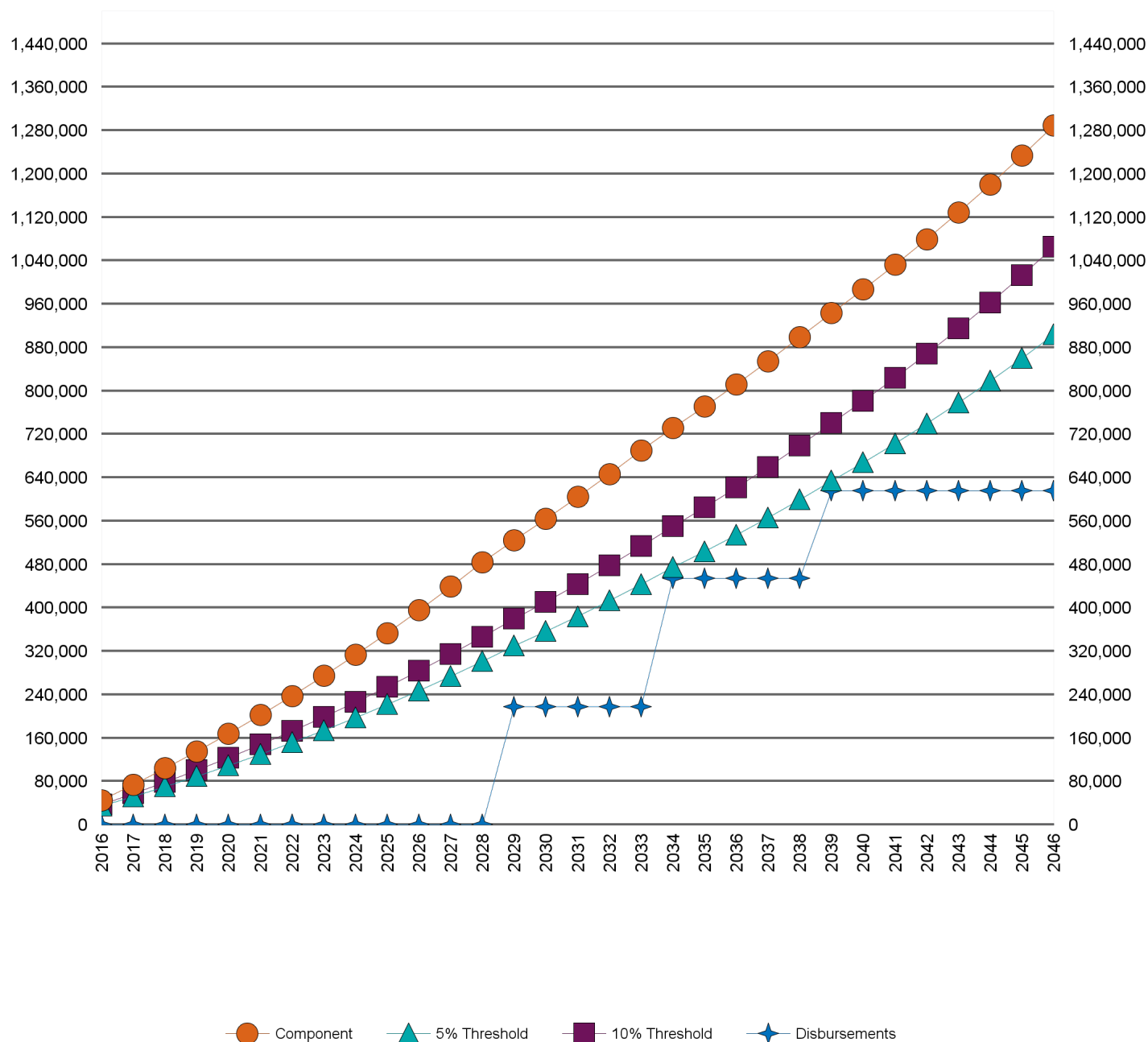
Interest Rate: 1.50%
 Inflation Rate: 3.00%



Cumulative Contributions and Disbursements

Project Name: Northbrook Community Association Common
 Project Location: Garnet Valley, Pennsylvania
 Project Number: 15-0878
 Date of Study: July 2016

Interest Rate: 1.50%
 Inflation Rate: 3.00%



Definitions

Definitions

Base Cost - See definition "Current Replacement Cost Allowance." This calculation, based on current costs, is increased according to the assumed rates of inflation in the "Disbursement Schedule."

Basic Annual Contribution - This is the amount that should have been contributed each year, while considering assumed rates of interest and inflation, to accumulate a reserve equal to the Current Replacement Cost at the anticipated replacement time (end-of-life). This is roughly calculated.

Contribution Adjustment - If the capital reserve fund for a component is not fully funded, this is the increase in annual contributions that would be required to fully fund the reserve before the estimated end-of-life. If the capital reserve fund for a component is over-funded, this is the decrease in annual contributions that would offset the over-funded condition.

Contribution, Total - This is the recommended Basic Annual Contribution plus the "Contribution Adjustment" (see definition) required to make up for past underfunding before replacement of the component is estimated to be required. The amount can decrease in future years because the required Contribution Adjustment decreases each year in which a reserve fund for a capital component is fully funded.

Current Replacement Cost - The estimated cost to replace a component in kind at the time of the Study.

Estimated Remaining Life - The anticipated number of years before replacement of this component can be expected to be necessary. This is based on the normal life, the current age, and an engineering assessment that considers site-specific condition.

Deficit - This shows the amount that the Present Fund is undercapitalized. It is the present fund minus the Required Fund. A positive number (surplus) means excess cash reserves have been set aside to date. A negative number indicates a deficit in the Present Fund; this underfunding can be made up in one of two ways: 1) an increase in the annual fees to catch up or, 2) a special assessment between now and when the component requires replacement. This Study assumes the second method is used and recommends annual makeup on that basis.

Interest - Interest accumulated on the capital reserve fund deposit based on the assumed interest rate listed at the top of the "Projected Cash Flow" pages.

Inflation - The increased cost of future replacement expenditures are based on an assumed rate of inflation.

Opening Balance - On the "Projected Cash Flow" pages, this is the reported total reserve fund on deposit

for the condominium Association.

Percent Funded - Represents the ratio of the Reserve Fund balance to the Required Fund or Fully Funded Balance. This is a measure of the financial health of the Reserve Fund and an indicator of the risk of the future necessity of special assessments.

Percentage Of Total - Percent of total recommended Basic Annual Contribution. This shows the significance of specific components relative to required contributions to the capital reserve fund.

Present Age - Age of the component at the time of this Study.

Present Fund - Present funds set aside for capital component replacement at this time. If present funds are not reserved for specific components but are an unallocated pool, the total present funds allocated between the components according to the Percentage Of Total column.

Required Fund - This amount should have been set aside for each component in the fund to be considered fully funded.

Surplus - This shows the amount that the Present Fund is overcapitalized. It is the present fund minus the Required Fund. A positive number (surplus) means excess cash reserves have been set aside to date.

Typical Life - The anticipated number of years that a component may be expected to provide adequate service. Please note that this is based on industry standards. A component may outlive, or require replacement prior to, its typical life.