

# CAPITAL RESERVE STUDY

FOR THE

## Snowden Overlook Community Association Columbia, Maryland



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## **Introduction**

The purpose of a Capital Reserve Study is to estimate the amount of money that must be funded 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, 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.

## **Project Narrative**

The Snowden Overlook Community Association, located in Columbia, Maryland is the Master Association which is responsible for the shared community property areas, including the clubhouse, swimming pool, grounds and retaining walls, guardhouse, and entry monuments. The five Community Associations within the Snowden Overlook development are each responsible for the residences and the common elements within their boundaries. The clubhouse is located on Endless Ocean Way off Dried Earth Boulevard. Major highways serving the area include MD Route 100, Route 175 and Snowden River Parkway.

The clubhouse consists of two levels, with the front entry at grade level, containing the manager's office, art/craft room, community room, meeting/multi-purpose room, exercise room, kitchen, and medial room. The lower level consists of the pool service areas with a summer kitchen, summer lounge, life guard room, bath/locker rooms, and storage/mechanical equipment rooms.

## **Capital Reserve Methodology**

In preparing this study, when provided, we reviewed the master deed and offering statement to identify the common element components. The interpretation of inconsistencies and contradictions which may exist within the designations and definition of the Common Elements of the property, as presented in the Governing Documents, are not the purview of the

Engineering firm. In circumstances where uncertainties exist, the Becht study will incorporate the common element designations which are provided to us by the client.

These building and site components are owned by the Association. 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. The general accepted practice is to not include these items in reserve studies.

Quantities of the components to be included in the reserve fund were then determined by either field measurements or from available building and site plans.

Estimates of the costs to replace each component were derived from published industry standards, including the R.S. Means Company cost-estimating guides. In addition, the costs were reviewed for accuracy based on our experience of similar replacement projects.

Finally, estimated remaining lives were determined for each of the included components based on the 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 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.

## Executive Summary

No Narrative Enter

Level of Service	Reserve Updates with Site Visits
Fiscal Year of Study	2014
Total First Year Contribution Per Funding Method	
Component Funding Contribution	\$10,476*
5% Threshold Funding Contribution	\$39,172*
10% Threshold Funding Contribution	\$40,591*
Present Reserve Fund	\$769,021
Required Reserve Fund (Based on Component Method)	\$510,523
Percent Funded (Based on Component Method)	151%
Month Contributions Commence	June 2014

\* Please note that this is the contribution for the period of January 2014 through December 2014.

## Reserve Study Disclosures

**General** - Becht Engineering does not currently have any other active projects with this Association. We are not aware of any involvement with this Association that 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.

**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.

**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.

## Capital Reserve Calculation

We have provided two Capital Reserve calculation methods. 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. The assumed inflation rate is 3.00% and the assumed interest rate is 1.00%.

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. The annual contribution is determined by lowering the contribution until the closing balance for any given year drops below a pre-determined threshold. 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.

The **Reserve Summary (A-1)** outlines the categories included in the study. This sheet lists the estimated **Replacement Costs** for all components in each category at the time of the study. The **Present Fund** column is the amount presently on deposit for the replacement of the components in these categories. The **Required Fund**, which is the amount we have determined should be on deposit at this time, is calculated as the **Present Age** of the components multiplied by the **Basic Annual Contribution**. The **Basic Annual Contribution** is the amount that should be reserved each year, in current dollars, to replace the components included in these categories.

The **Component Schedule (A-2 through A-4)** shows the amount necessary to replace individual components, which are grouped in the categories shown on the **Reserve Summary**. **Present Age** is the age of the component at the time of the study. The **Estimated Remaining Life** is 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 conditions if a site visit is included in our scope of work. The **Typical Life** column represents the anticipated number of years that a component may be expected to provide adequate service. These figures are based on industry standards; a component may outlive, or require replacement prior to, its typical life. The **Percentage of Total** is the percent of total **Required Fund**. This shows the significance of specific components relative to the total fund. The **Present Fund** refers to the amount currently set aside for replacement. If present funds are not reserved for specific components but are an unallocated pool, the total present fund is allocated between the components according to a calculation that takes into account the **Percentage of Total** column. The

**Required Fund** is the amount necessary for each component to be considered fully funded. The **Surplus (Deficit)** column is a calculation of the **Present Fund** minus the **Required Fund**. A positive number means a surplus of cash reserves have been set aside to date. A negative number indicates that there is a deficit in the Present Fund. **Years to Make-Up** is simply the Estimated Remaining Life or the amount of time left to fully fund a particular component before the money is anticipated to be required to replace the component. Finally, the **Contribution Adjustment** signifies, if a deficit exists, the increase in annual contributions above the recommended **Basic Annual Contribution** required to eliminate the deficit. If a surplus exists, this is the decrease in annual contributions that would offset the over-funded condition. The Annual Make-Up is based on the assumption the reserve for the item must be fully funded before the item must be replaced.

The **Disbursement Schedule (A-10 through A-15)** lists the years in which each component will require replacement. In addition, this schedule shows the replacement cost in current dollars and the adjusted cost based on the assumed inflation factor.

The Reserve Fund **Scenario(s) (A-16 through A-18)** are schedules that approximate actual cash flows. Since this is a plan of accumulating deposits to fund the cost of replacing these capital components in future years, it is necessary to consider the interest earned on the deposited money and the effect of inflation on the costs of the replacement work. A-16 shows a 30-year scenario of the component method calculation, using the assumed rates of interest and inflation. Deposits into the fund and expenditures out of the fund are shown on an annual basis. It is very important to note that these scenarios assume that the annual contributions to the capital reserve fund will be increased at the rate of inflation. A-17 through A-18 show a 30-year scenario using the same rates of interest and inflation with a minimized Annual Contribution resulting in a closing balance, which never goes below the established threshold.

The **Component Detail Pages (A-5 through A-9)** show further details of the individual components, including the quantities.

### **Capital Reserve Recommendations**

The Snowden Overlook Community Association has a total of 66 components in the reserve fund with a current Replacement Cost of \$1,006,909. The Association presently has a total of \$769,021 in the reserve fund. Using the Component Method, we have determined that the Basic Annual Contribution to the reserve fund should be \$72,653. The fully funded balance required is \$510,523. This leaves a surplus of \$258,498 in the reserve fund. The surplus 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 \$-62,177. This results in a Total Contribution to the reserve fund for the next budget year of \$10,476.



For the Threshold Funding calculations, as directed by the Association, we have used minimum closing balances of 5% and 10% of the Total Replacement Cost of all reserve components. This means that, using the given assumptions; the closing balance will never go below these minimum balances. The Threshold Funding Method results in first year Basic Annual Contributions of \$39,172 and \$40,591.

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.

## **Component Narrative**

### **Architectural**

ACOUSTIC PANELS, BANQUET ROOM-This component is 3 years old and we estimate a remaining useful life of 7 years.

CERAMIC TILE (GN3)-This component is 9 years old and we estimate a remaining useful life of 16 years. This includes all the ceramic tile throughout the clubhouse.

FLOOR, CARPET (GN2)- This Includes the carpeting in the media, and exercise rooms.

FLOORING, WOOD BAMBOO (GN6)-This component is 9 years old and we estimate a remaining useful life of 16 years.

GUTTERS/LEADERS (CLUBHOUSE/GUARD BLDG)-This component is 9 years old and we estimate a remaining useful life of 16 years.

ROOF, SHINGLES (CLUBHOUSE/GUARD BLDG)-This component is 9 years old and we estimate a remaining useful life of 16 years.

WINDOWS, CASEMENT (EXERCISE ROOM)-This component is 9 years old and we estimate a remaining useful life of 16 years.

WINDOWS, LARGE CASEMENT (MULTI ROOM)-This component is 9 years old and we estimate a remaining useful life of 16 years.

WINDOWS, REGULAR CASEMENT -This component is 9 years old and we estimate a remaining useful life of 16 years.

WINDOWS, SMALL AWNING/PICTURE-This component is 9 years old and we estimate a remaining useful life of 16 years.

### **Electrical**

CEILING FANS, EXTERIOR PATIO-This component is 1 years old and we estimate a remaining useful life of 11 years.

CEILING FANS, GYM-This component is 3 years old and we estimate a remaining useful life of 9 years.

ELECTRIC HEATER, UNIT/CABINET 5 KW-This component is 9 years old and we estimate a remaining useful life of 6 years.

ELECTRIC HEATER, WALL 2 KW-This component is 9 years old and we estimate a remaining useful life of 6 years.

ELECTRIC HEATER, WALL 4 KW-This component is 9 years old and we estimate a remaining useful life of 6 years.

ENTRY GATE ELECTRONIC ACCESS PANEL-This component is 1 years old and we estimate a remaining useful life of 9 years.

ENTRY GATE MECHANICAL SYSTEM-This component is 9 years old and we estimate a remaining useful life of 11 years.

ENTRY SYSTEM, SWIPE CARD-This component is 9 years old and we estimate a remaining useful life of 1 years.

EXIT/EMERGENCY SIGNS-This component is 9 years old and we estimate a remaining useful life of 11 years.

EXTERIOR LIGHTING ALLOWANCE (GN5)-This component is 9 years old and we estimate a remaining useful life of 21 years. Includes all of the exterior lighting on the clubhouse and guardhouse.

This lighting budget is grouped in an allowance due to the number and types of lighting throughout the building as an alternative to funding for a one time full replacement. This numbers requires updating in future reserves to properly manage funding in the long term.

FIRE ALARM CONTROL PANEL/COMPONENTS-This component is 9 years old and we estimate a remaining useful life of 21 years.

INTERIOR LIGHTING ALLOWANCE (GN4)-This component is 9 years old and we estimate a remaining useful life of 16 years. Includes all interior lighting (recessed, wall, fluorescent fixtures) throughout the clubhouse.

This lighting budget is grouped in an allowance due to the number and types of lighting throughout the building as an alternative to funding for a one time full replacement. This numbers requires updating in future reserves to properly manage funding in the long term.

MEDIA/MOVIE ROOM ALLOWANCE-This component is 9 years old and we estimate a remaining useful life of 6 years.

This equipment in the media/movie room is grouped in an allowance due to the types of equipment and the random nature of replacements as an alternative to funding for a one time full replacement. This numbers requires updating in future reserves to properly manage funding in the long term.

SECURITY SYSTEM, CLUBHOUSE (GN8)-This component is 9 years old and we estimate a remaining useful life of 1 years.

SECURITY SYSTEM, GUARD HOUSE (GN8)-This component is 3 years old and we estimate a remaining useful life of 7 years.

## **Mechanical**

AC UNIT GUARD HOUSE-This component is 3 years old and we estimate a remaining useful life of 12 years.

AIR COMPRESSOR, 3/4 HP-This component is 9 years old and we estimate a remaining useful life of 6 years.

AIR HANDLER/DUCT HEATER-This component is 9 years old and we estimate a remaining useful life of 6 years.

CIRCULATING WATER PUMP (HWH)-This component is 9 years old and we estimate a remaining useful life of 11 years.

EXHAUST FAN (EF2, EF5) (BATHROOMS)-This component is 9 years old and we estimate a remaining useful life of 11 years.

EXHAUST FANS (EF1, EF3, EF4) (GN7)-This component is 9 years old and we estimate a remaining useful life of 11 years.

HVAC SPLIT SYSTEM (2.5 TON)-This component is 9 years old and we estimate a remaining useful life of 6 years.

HVAC SPLIT SYSTEM (3.5 TON)-This component is 9 years old and we estimate a remaining useful life of 6 years.

HVAC SPLIT SYSTEM (5 TON)-This component is 9 years old and we estimate a remaining useful life of 6 years.

HWH 100 GALLON-This component is 9 years old and we estimate a remaining useful life of 6 years.

POOL HEATER UNIT-This component is 3 years old and we estimate a remaining useful life of 17 years.

SAUNA HEATERS-This component is 9 years old and we estimate a remaining useful life of 6 years.

SUMP PUMP-This component is 9 years old and we estimate a remaining useful life of 6 years.

## **Site**

ASPHALT PAVING, CLUBHOUSE/MAIN ROAD-This component is 9 years old and we estimate a remaining useful life of 11 years.

AWNING CANOPY REPLACEMENT-This component is 3 years old and we estimate a remaining useful life of 7 years.

CONCRETE CURB & GUTTER 25%-This component is 9 years old and we estimate a remaining useful life of 21 years. The estimated cost for the concrete areas listed in this report includes the removal of the existing concrete and replacement with new concrete. Typically, concrete never requires full replacement at one time so we have estimated a percentage or a quantity to be replaced over the given time frame. This percentage can be adjusted during future reserve updates to properly manage funding in the long term.

CONCRETE POOL APRON-This component is 9 years old and we estimate a remaining useful life of 16 years.

ENTRY SECURITY GATES-This component is 9 years old and we estimate a remaining useful life of 11 years.

FENCE, CLUBHOUSE/POOL AREA -This component is 9 years old and we estimate a remaining useful life of 26 years.

IRRIGATION SYSTEM ALLOWANCE-This component is 9 years old and we estimate a remaining useful life of 1 year. This allowance includes funding to replace the controllers, backflow preventers and funding to make regular head replacements and any necessary repairs in a designated cycle.

POOL COPING REPLACEMENT-This component is 9 years old and we estimate a remaining useful life of 1 years.

POOL FILTERS-This component is 9 years old and we estimate a remaining useful life of 6 years.

POOL PUMPS-This component is 9 years old and we estimate a remaining useful life of 1 years.

POOL WHITECOAT-This component is 9 years old and we estimate a remaining useful life of 4 years.

SIDEWALKS/RAMP, CLUBHOUSE/MAIN ROAD-This component is 9 years old and we estimate a remaining useful life of 31 years.

### **Miscellaneous**

DRINKING FOUNTAIN, GYM-This component is 3 years old and we estimate a remaining useful life of 12 years.

EXERCISE EQUIP (1 PC)-This component is 0 years old and we estimate a remaining useful life of 8 years.

EXERCISE EQUIP (12PC)-This component is 9 years old and we estimate a remaining useful life of 2 years.

EXERCISE EQUIP (2 PC)-This component is 2 years old and we estimate a remaining useful life of 6 years.

FUNITURE, MAIN FLOOR PATIO CHAIRS-This component is 9 years old and we estimate a remaining useful life of 11 years.

FUNITURE, MAIN FLOOR PATIO CHAIRS-This component is 0 years old and we estimate a remaining useful life of 20 years.

FUNITURE, MAIN FLOOR PATIO TABLES-This component is 0 years old and we estimate a remaining useful life of 20 years.

FURNITURE, CLUBHOUSE (GN1)- This includes the furniture in the living room, meeting room, banquet room, and the theater chairs.

FURNITURE, FOLDING-This component is 6 years old and we estimate a remaining useful life of 9 years.

GAME ROOM, POOL & PING PONG TABLE-This component is 2 years old and we estimate a remaining useful life of 10 years.

GAS FIREPLACE-This component is 9 years old and we estimate a remaining useful life of 11 years.

KITCHEN APPLIANCES (LOWER LEVEL)-This component is 9 years old and we estimate a remaining useful life of 11 years.

KITCHEN APPLIANCES (MAIN LEVEL)-This component is 9 years old and we estimate a remaining useful life of 11 years.

OFFICE EQUIPMENT-This component is 3 years old and we estimate a remaining useful life of 2 years.

POOL FURNITURE-This component is 9 years old and we estimate a remaining useful life of 1 years.

SAUNAS-This component is 9 years old and we estimate a remaining useful life of 16 years.



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CAI Reserve Specialist #145  
**July 14, 2014**

# Capital Reserve Calculations





## Reserve Summary

**Project Name:** Snowden Overlook Community Association  
**Project Location:** Columbia, Maryland  
**Project Number:** 14-0177 **Interest Rate:** 1.00%  
**Date of Study:** June 2014 **Inflation Rate:** 3.00%  
**Month Contributions Commence:** June 2014

Category	Replacement Cost	RESERVES			CONTRIBUTION		
		Present Fund	Required Fund	Surplus (Deficit)	Basic Annual	Adjustment*	Total
<b>Architectural</b>	\$161,783	\$108,422	\$71,977	\$36,445	\$8,865	(\$3,018)	\$5,848
<b>Electrical</b>	\$110,500	\$88,429	\$58,704	\$29,724	\$8,438	(\$8,701)	(\$263)
<b>Mechanical</b>	\$90,250	\$81,141	\$53,866	\$27,275	\$7,068	(\$4,811)	\$2,257
<b>Site</b>	\$460,216	\$322,341	\$213,989	\$108,352	\$28,358	(\$22,756)	\$5,603
<b>Miscellaneous</b>	\$184,160	\$168,689	\$111,986	\$56,703	\$19,924	(\$22,892)	(\$2,969)
<b>TOTALS</b>	\$1,006,909	\$769,021	\$510,523	\$258,498	\$72,653	(\$62,177)	\$10,476

\* FIRST YEAR CONTRIBUTION ADJUSTMENT CAN DIFFER EACH YEAR



## Component Schedule

<b>Project Name:</b>	Snowden Overlook Community Association	<b>Interest Rate:</b>	1.00%
<b>Project Location:</b>	Columbia, Maryland	<b>Inflation Rate:</b>	3.00%
<b>Project Number:</b>	14-0177		
<b>Date of Study:</b>	June 2014		

Description	Replacement Cost	Present Age	Est. Rem. Life	Typical Life	Basic Annual Contrib.	Percent Total	Present Fund	Required Fund	Surplus (Deficit)	Contrib. Adjustment
<b>Architectural</b>										
Acoustic Panels, Banquet Room	\$5,000	3	7	10	\$581	0.33%	\$2,530	\$1,679	\$850	(\$136)
Ceramic Tile (GN3)	\$33,200	9	16	25	\$1,729	2.88%	\$22,138	\$14,697	\$7,442	(\$572)
Floor, Carpet (GN2)	\$4,060	9	6	15	\$330	0.53%	\$4,053	\$2,691	\$1,362	(\$251)
Flooring, Wood Bamboo (GN6)	\$17,364	9	16	25	\$904	1.51%	\$11,579	\$7,687	\$3,892	(\$299)
Gutters/Leaders (Clubhouse/Guard Bldg)	\$5,138	9	16	25	\$268	0.45%	\$3,426	\$2,274	\$1,152	(\$89)
Roof, Shingles (Clubhouse/Guard Bldg)	\$32,271	9	16	25	\$1,681	2.80%	\$21,519	\$14,286	\$7,233	(\$556)
Windows, Casement (Exercise Room)	\$1,500	9	16	25	\$78	0.13%	\$1,000	\$664	\$336	(\$26)
Windows, Large Casement (Multi Room)	\$14,000	9	16	25	\$729	1.21%	\$9,335	\$6,197	\$3,138	(\$241)
Windows, Regular Casement	\$20,250	9	16	25	\$1,055	1.76%	\$13,503	\$8,964	\$4,539	(\$349)
Windows, Small Awning/Picture	\$29,000	9	16	25	\$1,511	2.51%	\$19,338	\$12,838	\$6,500	(\$500)
<b>Electrical</b>										
Ceiling Fans, Exterior Patio	\$1,350	1	11	12	\$133	0.03%	\$199	\$132	\$67	(\$7)
Ceiling Fans, Gym	\$450	3	9	12	\$44	0.03%	\$195	\$129	\$65	(\$8)
Electric Heater, Unit/Cabinet 5 KW	\$16,200	9	6	15	\$1,317	2.10%	\$16,173	\$10,736	\$5,436	(\$1,001)
Electric Heater, Wall 2 KW	\$4,600	9	6	15	\$374	0.60%	\$4,592	\$3,049	\$1,544	(\$284)
Electric Heater, Wall 4 KW	\$5,000	9	6	15	\$406	0.65%	\$4,992	\$3,314	\$1,678	(\$309)
Entry Gate Electronic Access Panel	\$10,000	1	9	10	\$1,161	0.22%	\$1,729	\$1,148	\$581	(\$74)
Entry Gate Mechanical System	\$10,000	9	11	20	\$633	1.03%	\$7,957	\$5,283	\$2,675	(\$285)
Entry System, Swipe Card	\$8,500	9	1	10	\$987	1.53%	\$11,745	\$7,797	\$3,948	(\$4,024)
Exit/Emergency Signs	\$4,725	9	11	20	\$299	0.49%	\$3,760	\$2,496	\$1,264	(\$135)
Exterior Lighting Allowance (GN5)	\$6,800	9	21	30	\$301	0.51%	\$3,915	\$2,599	\$1,316	(\$80)
Fire Alarm Control Panel/Components	\$5,700	9	21	30	\$253	0.43%	\$3,281	\$2,178	\$1,103	(\$67)
Interior Lighting Allowance (GN4)	\$22,500	9	16	25	\$1,172	1.95%	\$15,003	\$9,960	\$5,043	(\$388)
Media/Movie Room Allowance	\$10,000	9	6	15	\$813	1.30%	\$9,983	\$6,627	\$3,356	(\$618)
Security System, Clubhouse (GN8)	\$2,900	9	1	10	\$337	0.52%	\$4,007	\$2,660	\$1,347	(\$1,373)
Security System, Guard House (GN8)	\$1,775	3	7	10	\$206	0.12%	\$898	\$596	\$302	(\$48)



## Component Schedule

<b>Project Name:</b>	Snowden Overlook Community Association	<b>Interest Rate:</b>	1.00%
<b>Project Location:</b>	Columbia, Maryland	<b>Inflation Rate:</b>	3.00%
<b>Project Number:</b>	14-0177		
<b>Date of Study:</b>	June 2014		

Description	Replacement Cost	Present Age	Est. Rem. Life	Typical Life	Basic Annual Contrib.	Percent Total	Present Fund	Required Fund	Surplus (Deficit)	Contrib. Adjustment
<b>Mechanical</b>										
AC Unit Guard House	\$800	3	12	15	\$65	0.04%	\$286	\$190	\$96	(\$9)
Air Compressor, 3/4 hp	\$1,800	9	6	15	\$146	0.23%	\$1,797	\$1,193	\$604	(\$111)
Air Handler/Duct Heater	\$10,500	9	6	15	\$854	1.36%	\$10,482	\$6,959	\$3,523	(\$649)
Circulating Water Pump (HWH)	\$1,600	9	11	20	\$101	0.17%	\$1,273	\$845	\$428	(\$46)
Exhaust Fan (EF2, EF5) (Bathrooms)	\$1,500	9	11	20	\$95	0.16%	\$1,194	\$792	\$401	(\$43)
Exhaust Fans (EF1, EF3, EF4) (GN7)	\$1,350	9	11	20	\$85	0.14%	\$1,074	\$713	\$361	(\$39)
HVAC Split System (2.5 Ton)	\$4,750	9	6	15	\$386	0.62%	\$4,742	\$3,148	\$1,594	(\$293)
HVAC Split System (3.5 Ton)	\$31,000	9	6	15	\$2,520	4.02%	\$30,948	\$20,545	\$10,403	(\$1,915)
HVAC Split System (5 Ton)	\$8,500	9	6	15	\$691	1.10%	\$8,486	\$5,633	\$2,852	(\$525)
HWH 100 Gallon	\$10,500	9	6	15	\$854	1.36%	\$10,482	\$6,959	\$3,523	(\$649)
Pool Heater Unit	\$10,500	3	17	20	\$665	0.38%	\$2,940	\$1,952	\$988	(\$72)
Sauna Heaters	\$7,000	9	6	15	\$569	0.91%	\$6,988	\$4,639	\$2,349	(\$432)
Sump Pump	\$450	9	6	15	\$37	0.06%	\$449	\$298	\$151	(\$28)
<b>Site</b>										
Asphalt Paving, Clubhouse/Main Road	\$118,044	9	11	20	\$7,471	12.21%	\$93,932	\$62,357	\$31,574	(\$3,370)
Awning Canopy Replacement	\$6,500	3	7	10	\$755	0.43%	\$3,289	\$2,183	\$1,105	(\$177)
Concrete Curb & Gutter 25%	\$26,572	9	21	30	\$1,178	1.99%	\$15,297	\$10,155	\$5,142	(\$312)
Concrete Pool Apron	\$89,850	9	16	25	\$4,680	7.79%	\$59,914	\$39,774	\$20,139	(\$1,548)
Entry Security Gates	\$7,000	9	11	20	\$443	0.72%	\$5,570	\$3,698	\$1,872	(\$200)
Fence, Clubhouse/Pool Area	\$25,460	9	26	35	\$982	1.68%	\$12,903	\$8,566	\$4,337	(\$218)
Irrigation System Allowance	\$10,000	9	1	10	\$1,161	1.80%	\$13,818	\$9,173	\$4,645	(\$4,734)
Pool Coping Replacement	\$10,500	9	1	10	\$1,219	1.89%	\$14,509	\$9,632	\$4,877	(\$4,971)
Pool Filters	\$6,500	9	6	15	\$528	0.84%	\$6,489	\$4,308	\$2,181	(\$402)
Pool Pumps	\$5,500	9	1	10	\$639	0.99%	\$7,600	\$5,045	\$2,555	(\$2,604)
Pool Whitecoat	\$43,200	9	4	9	\$5,510	5.04%	\$38,773	\$25,740	\$13,033	(\$3,494)

## Component Schedule

**Project Name:** Snowden Overlook Community Association  
**Project Location:** Columbia, Maryland  
**Project Number:** 14-0177 **Interest Rate:** 1.00%  
**Date of Study:** June 2014 **Inflation Rate:** 3.00%

Description	Replacement Cost	Present Age	Est. Rem. Life	Typical Life	Basic Annual Contrib.	Percent Total	Present Fund	Required Fund	Surplus (Deficit)	Contrib. Adjustment
Sidewalks/Ramp, Clubhouse/Main Roac	\$111,090	9	31	40	\$3,791	6.53%	\$50,249	\$33,358	\$16,891	(\$727)
<b>Miscellaneous</b>										
Drinking Fountain, Gym	\$1,200	3	12	15	\$98	0.06%	\$429	\$285	\$144	(\$14)
Exercise Equip (1 pc)	\$5,000	0	8	8	\$709	0.00%	\$0	\$0	\$0	\$0
Exercise Equip (12pc)	\$60,000	9	2	8	\$8,506	9.15%	\$70,341	\$46,697	\$23,644	(\$12,268)
Exercise Equip (2 pc)	\$10,000	2	6	8	\$1,418	0.54%	\$4,160	\$2,761	\$1,398	(\$257)
Furniture, Main Floor Patio Chairs	\$2,880	0	20	20	\$182	0.00%	\$0	\$0	\$0	\$0
Furniture, Main Floor Patio Chairs	\$7,680	9	11	20	\$486	0.79%	\$6,111	\$4,057	\$2,054	(\$219)
Furniture, Main Floor Patio Tables	\$6,000	0	20	20	\$380	0.00%	\$0	\$0	\$0	\$0
Furniture, Clubhouse (GN1)	\$50,000	9	6	15	\$4,065	6.49%	\$49,915	\$33,137	\$16,779	(\$3,089)
Furniture, Folding	\$2,700	6	9	15	\$220	0.24%	\$1,867	\$1,240	\$628	(\$80)
Game Room, Pool & Ping Pong Table	\$3,000	2	10	12	\$297	0.11%	\$875	\$581	\$294	(\$34)
Gas Fireplace	\$2,500	9	11	20	\$158	0.26%	\$1,989	\$1,321	\$669	(\$71)
Kitchen Appliances (Lower Level)	\$2,200	9	11	20	\$139	0.23%	\$1,751	\$1,162	\$588	(\$63)
Kitchen Appliances (Main Level)	\$5,000	9	11	20	\$316	0.52%	\$3,979	\$2,641	\$1,337	(\$143)
Office Equipment	\$5,000	3	2	5	\$1,089	0.61%	\$4,689	\$3,113	\$1,576	(\$818)
Pool Furniture	\$12,000	9	1	10	\$1,393	2.16%	\$16,581	\$11,008	\$5,574	(\$5,681)
Saunas	\$9,000	9	16	25	\$469	0.78%	\$6,001	\$3,984	\$2,017	(\$155)
<b>TOTALS</b>	\$1,006,909				\$72,653	100.00%	\$769,021	\$510,523	\$258,498	(\$62,177)

**General Notes:**

**GN1 - Includes living room, meeting room, banquet room furniture, and theater chairs.**

**GN2 - Includes the carpeting in the media, and exercise rooms.**

**GN3 - Includes the ceramic tile throughout the clubhouse.**

**GN4 - Includes all interior lighting (recessed, wall, fluorescent fixtures) throughout the clubhouse.**

**GN5 - Refers to all exterior lighting on the clubhouse and guardhouse.**

**GN6- Includes removal and replacement of the Bamboo flooring throughout.**

**GN7 - Refers to the exhaust fans in the pool mechanical room, art room, and kitchen.**

**GN8- The clubhouse system includes 8 cameras and DVR unit with the guard house including 3 cameras and DVR unit.**



## Component Detail

<b>Project Name:</b>	Snowden Overlook Community Association		
<b>Project Location:</b>	Columbia, Maryland		
<b>Project Number:</b>	14-0177	<b>Interest Rate:</b>	1.00%
<b>Date of Study:</b>	June 2014	<b>Inflation Rate:</b>	3.00%

<i>Architectural</i>	<i>Quantity</i>	<i>Replacement Cost</i>	<b>RESERVES</b>			<b>CONTRIBUTION</b>	
			<i>Present Fund</i>	<i>Required Fund</i>	<i>Surplus (Deficit)</i>	<i>Basic Annual</i>	<i>Total</i>
Acoustic Panels, Banquet Room	1 LS	\$5,000	\$2,530	\$1,679	\$850	\$581	\$445
Ceramic Tile (GN3)	3,320 SF	\$33,200	\$22,138	\$14,697	\$7,442	\$1,729	\$1,157
Floor, Carpet (GN2)	116 SY	\$4,060	\$4,053	\$2,691	\$1,362	\$330	\$79
Flooring, Wood Bamboo (GN6)	2,395 SF	\$17,364	\$11,579	\$7,687	\$3,892	\$904	\$605
Gutters/Leaders (Clubhouse/Guard Bldg)	685 LF	\$5,138	\$3,426	\$2,274	\$1,152	\$268	\$179
Roof, Shingles (Clubhouse/Guard Bldg)	10,410 SF	\$32,271	\$21,519	\$14,286	\$7,233	\$1,681	\$1,125
Windows, Casement (Exercise Room)	1 EA	\$1,500	\$1,000	\$664	\$336	\$78	\$52
Windows, Large Casement (Multi Room)	7 EA	\$14,000	\$9,335	\$6,197	\$3,138	\$729	\$488
Windows, Regular Casement	27 EA	\$20,250	\$13,503	\$8,964	\$4,539	\$1,055	\$706
Windows, Small Awning/Picture	58 EA	\$29,000	\$19,338	\$12,838	\$6,500	\$1,511	\$1,011
<b>TOTALS</b>		<b>\$161,783</b>	<b>\$108,422</b>	<b>\$71,977</b>	<b>\$36,445</b>	<b>\$8,865</b>	<b>\$5,848</b>



## Component Detail

<b>Project Name:</b>	Snowden Overlook Community Association		
<b>Project Location:</b>	Columbia, Maryland		
<b>Project Number:</b>	14-0177	<b>Interest Rate:</b>	1.00%
<b>Date of Study:</b>	June 2014	<b>Inflation Rate:</b>	3.00%

Electrical	Quantity	Replacement Cost	RESERVES			CONTRIBUTION	
			Present Fund	Required Fund	Surplus (Deficit)	Basic Annual	Total
Ceiling Fans, Exterior Patio	6 EA	\$1,350	\$199	\$132	\$67	\$133	\$126
Ceiling Fans, Gym	2 EA	\$450	\$195	\$129	\$65	\$44	\$36
Electric Heater, Unit/Cabinet 5 KW	6 EA	\$16,200	\$16,173	\$10,736	\$5,436	\$1,317	\$316
Electric Heater, Wall 2 KW	2 EA	\$4,600	\$4,592	\$3,049	\$1,544	\$374	\$90
Electric Heater, Wall 4 KW	2 EA	\$5,000	\$4,992	\$3,314	\$1,678	\$406	\$98
Entry Gate Electronic Access Panel	1 LS	\$10,000	\$1,729	\$1,148	\$581	\$1,161	\$1,087
Entry Gate Mechanical System	1 LS	\$10,000	\$7,957	\$5,283	\$2,675	\$633	\$347
Entry System, Swipe Card	1 LS	\$8,500	\$11,745	\$7,797	\$3,948	\$987	(\$3,037)
Exit/Emergency Signs	27 EA	\$4,725	\$3,760	\$2,496	\$1,264	\$299	\$164
Exterior Lighting Allowance (GN5)	1 LS	\$6,800	\$3,915	\$2,599	\$1,316	\$301	\$222
Fire Alarm Control Panel/Components	1 EA	\$5,700	\$3,281	\$2,178	\$1,103	\$253	\$186
Interior Lighting Allowance (GN4)	1 EA	\$22,500	\$15,003	\$9,960	\$5,043	\$1,172	\$784
Media/Movie Room Allowance	1 LS	\$10,000	\$9,983	\$6,627	\$3,356	\$813	\$195
Security System, Clubhouse (GN8)	1 LS	\$2,900	\$4,007	\$2,660	\$1,347	\$337	(\$1,036)
Security System, Guard House (GN8)	1 LS	\$1,775	\$898	\$596	\$302	\$206	\$158
<b>TOTALS</b>		<b>\$110,500</b>	<b>\$88,429</b>	<b>\$58,704</b>	<b>\$29,724</b>	<b>\$8,438</b>	<b>(\$263)</b>



## Component Detail

<b>Project Name:</b>	Snowden Overlook Community Association		
<b>Project Location:</b>	Columbia, Maryland		
<b>Project Number:</b>	14-0177	<b>Interest Rate:</b>	1.00%
<b>Date of Study:</b>	June 2014	<b>Inflation Rate:</b>	3.00%

<i>Mechanical</i>	<i>Quantity</i>	<i>Replacement Cost</i>	<b>RESERVES</b>			<b>CONTRIBUTION</b>	
			<i>Present Fund</i>	<i>Required Fund</i>	<i>Surplus (Deficit)</i>	<i>Basic Annual</i>	<i>Total</i>
AC Unit Guard House	1 EA	\$800	\$286	\$190	\$96	\$65	\$56
Air Compressor, 3/4 hp	1 EA	\$1,800	\$1,797	\$1,193	\$604	\$146	\$35
Air Handler/Duct Heater	1 LS	\$10,500	\$10,482	\$6,959	\$3,523	\$854	\$205
Circulating Water Pump (HWH)	1 EA	\$1,600	\$1,273	\$845	\$428	\$101	\$56
Exhaust Fan (EF2, EF5) (Bathrooms)	2 EA	\$1,500	\$1,194	\$792	\$401	\$95	\$52
Exhaust Fans (EF1, EF3, EF4) (GN7)	3 EA	\$1,350	\$1,074	\$713	\$361	\$85	\$47
HVAC Split System (2.5 Ton)	1 EA	\$4,750	\$4,742	\$3,148	\$1,594	\$386	\$93
HVAC Split System (3.5 Ton)	5 EA	\$31,000	\$30,948	\$20,545	\$10,403	\$2,520	\$605
HVAC Split System (5 Ton)	1 EA	\$8,500	\$8,486	\$5,633	\$2,852	\$691	\$166
HWH 100 Gallon	1 EA	\$10,500	\$10,482	\$6,959	\$3,523	\$854	\$205
Pool Heater Unit	1 EA	\$10,500	\$2,940	\$1,952	\$988	\$665	\$593
Sauna Heaters	2 EA	\$7,000	\$6,988	\$4,639	\$2,349	\$569	\$137
Sump Pump	1 EA	\$450	\$449	\$298	\$151	\$37	\$9
<b>TOTALS</b>		<b>\$90,250</b>	<b>\$81,141</b>	<b>\$53,866</b>	<b>\$27,275</b>	<b>\$7,068</b>	<b>\$2,257</b>



## Component Detail

<b>Project Name:</b>	Snowden Overlook Community Association		
<b>Project Location:</b>	Columbia, Maryland		
<b>Project Number:</b>	14-0177	<b>Interest Rate:</b>	1.00%
<b>Date of Study:</b>	June 2014	<b>Inflation Rate:</b>	3.00%

Site	Quantity	Replacement Cost	RESERVES			CONTRIBUTION	
			Present Fund	Required Fund	Surplus (Deficit)	Basic Annual	Total
Asphalt Paving, Clubhouse/Main Road	6,558 SY	\$118,044	\$93,932	\$62,357	\$31,574	\$7,471	\$4,102
Awning Canopy Replacement	1 EA	\$6,500	\$3,289	\$2,183	\$1,105	\$755	\$578
Concrete Curb & Gutter 25%	949 LF	\$26,572	\$15,297	\$10,155	\$5,142	\$1,178	\$866
Concrete Pool Apron	11,980 SF	\$89,850	\$59,914	\$39,774	\$20,139	\$4,680	\$3,132
Entry Security Gates	2 EA	\$7,000	\$5,570	\$3,698	\$1,872	\$443	\$243
Fence, Clubhouse/Pool Area	760 LF	\$25,460	\$12,903	\$8,566	\$4,337	\$982	\$764
Irrigation System Allowance	1 LS	\$10,000	\$13,818	\$9,173	\$4,645	\$1,161	(\$3,573)
Pool Coping Replacement	210 LF	\$10,500	\$14,509	\$9,632	\$4,877	\$1,219	(\$3,751)
Pool Filters	1 LS	\$6,500	\$6,489	\$4,308	\$2,181	\$528	\$127
Pool Pumps	1 LS	\$5,500	\$7,600	\$5,045	\$2,555	\$639	(\$1,965)
Pool Whitecoat	8,640 SF	\$43,200	\$38,773	\$25,740	\$13,033	\$5,510	\$2,016
Sidewalks/Ramp, Clubhouse/Main Road	15,870 SF	\$111,090	\$50,249	\$33,358	\$16,891	\$3,791	\$3,064
<b>TOTALS</b>		\$460,216	\$322,341	\$213,989	\$108,352	\$28,358	\$5,603





## Component Detail

<b>Project Name:</b>	Snowden Overlook Community Association		
<b>Project Location:</b>	Columbia, Maryland		
<b>Project Number:</b>	14-0177	<b>Interest Rate:</b>	1.00%
<b>Date of Study:</b>	June 2014	<b>Inflation Rate:</b>	3.00%

<i>Miscellaneous</i>	Quantity	Replacement Cost	RESERVES			CONTRIBUTION	
			Present Fund	Required Fund	Surplus (Deficit)	Basic Annual	Total
Drinking Fountain, Gym	1 EA	\$1,200	\$429	\$285	\$144	\$98	\$83
Exercise Equip (1 pc)	1 EA	\$5,000	\$0	\$0	\$0	\$709	\$709
Exercise Equip (12pc)	12 EA	\$60,000	\$70,341	\$46,697	\$23,644	\$8,506	(\$3,762)
Exercise Equip (2 pc)	2 EA	\$10,000	\$4,160	\$2,761	\$1,398	\$1,418	\$1,160
Furniture, Main Floor Patio Chairs	12 EA	\$2,880	\$0	\$0	\$0	\$182	\$182
Furniture, Main Floor Patio Chairs	32 EA	\$7,680	\$6,111	\$4,057	\$2,054	\$486	\$267
Furniture, Main Floor Patio Tables	10 EA	\$6,000	\$0	\$0	\$0	\$380	\$380
Furniture, Clubhouse (GN1)	1 LS	\$50,000	\$49,915	\$33,137	\$16,779	\$4,065	\$976
Furniture, Folding	1 LS	\$2,700	\$1,867	\$1,240	\$628	\$220	\$139
Game Room, Pool & Ping Pong Table	1 LS	\$3,000	\$875	\$581	\$294	\$297	\$262
Gas Fireplace	1 EA	\$2,500	\$1,989	\$1,321	\$669	\$158	\$87
Kitchen Appliances (Lower Level)	1 LS	\$2,200	\$1,751	\$1,162	\$588	\$139	\$76
Kitchen Appliances (Main Level)	1 LS	\$5,000	\$3,979	\$2,641	\$1,337	\$316	\$174
Office Equipment	1 LS	\$5,000	\$4,689	\$3,113	\$1,576	\$1,089	\$271
Pool Furniture	1 LS	\$12,000	\$16,581	\$11,008	\$5,574	\$1,393	(\$4,287)
Saunas	2 EA	\$9,000	\$6,001	\$3,984	\$2,017	\$469	\$314
<b>TOTALS</b>		<b>\$184,160</b>	<b>\$168,689</b>	<b>\$111,986</b>	<b>\$56,703</b>	<b>\$19,924</b>	<b>(\$2,969)</b>



## Disbursement Schedule

**Project Name:** Snowden Overlook Community Association  
**Project Location:** Columbia, Maryland  
**Project Number:** 14-0177 **Interest Rate:** 1.00%  
**Date of Study:** June 2014 **Inflation Rate:** 3.00%

Year	Description	Base Cost	Future Replacement Cost
<b>2015</b>			
	Entry System, Swipe Card	\$8,500	\$8,755
	Irrigation System Allowance	\$10,000	\$10,300
	Pool Coping Replacement	\$10,500	\$10,815
	Pool Furniture	\$12,000	\$12,360
	Pool Pumps	\$5,500	\$5,665
	Security System, Clubhouse (GN8)	\$2,900	\$2,987
		<b>\$49,400</b>	<b>\$50,882</b>
<b>2016</b>			
	Exercise Equip (12pc)	\$60,000	\$63,654
	Office Equipment	\$5,000	\$5,305
		<b>\$65,000</b>	<b>\$68,959</b>
<b>2018</b>			
	Pool Whitecoat	\$43,200	\$48,622
		<b>\$43,200</b>	<b>\$48,622</b>
<b>2020</b>			
	Air Compressor, 3/4 hp	\$1,800	\$2,149
	Air Handler/Duct Heater	\$10,500	\$12,538
	Electric Heater, Unit/Cabinet 5 KW	\$16,200	\$19,344
	Electric Heater, Wall 2 KW	\$4,600	\$5,493
	Electric Heater, Wall 4 KW	\$5,000	\$5,970
	Exercise Equip (2 pc)	\$10,000	\$11,941
	Floor, Carpet (GN2)	\$4,060	\$4,848
	Furniture, Clubhouse (GN1)	\$50,000	\$59,703
	HVAC Split System (2.5 Ton)	\$4,750	\$5,672
	HVAC Split System (3.5 Ton)	\$31,000	\$37,016
	HVAC Split System (5 Ton)	\$8,500	\$10,149
	HWH 100 Gallon	\$10,500	\$12,538
	Media/Movie Room Allowance	\$10,000	\$11,941
	Pool Filters	\$6,500	\$7,761
	Sauna Heaters	\$7,000	\$8,358
	Sump Pump	\$450	\$537
		<b>\$180,860</b>	<b>\$215,956</b>



## Disbursement Schedule

**Project Name:** Snowden Overlook Community Association  
**Project Location:** Columbia, Maryland  
**Project Number:** 14-0177 **Interest Rate:** 1.00%  
**Date of Study:** June 2014 **Inflation Rate:** 3.00%

Year	Description	Base Cost	Future Replacement Cost
<b>2021</b>			
	Acoustic Panels, Banquet Room	\$5,000	\$6,149
	Awning Canopy Replacement	\$6,500	\$7,994
	Office Equipment	\$5,000	\$6,149
	Security System, Guard House (GN8)	\$1,775	\$2,183
		<b>\$18,275</b>	<b>\$22,476</b>
<b>2022</b>			
	Exercise Equip (1 pc)	\$5,000	\$6,334
		<b>\$5,000</b>	<b>\$6,334</b>
<b>2023</b>			
	Ceiling Fans, Gym	\$450	\$587
	Entry Gate Electronic Access Panel	\$10,000	\$13,048
	Furniture, Folding	\$2,700	\$3,523
		<b>\$13,150</b>	<b>\$17,158</b>
<b>2024</b>			
	Exercise Equip (12pc)	\$60,000	\$80,635
	Game Room, Pool & Ping Pong Table	\$3,000	\$4,032
		<b>\$63,000</b>	<b>\$84,667</b>
<b>2025</b>			
	Asphalt Paving, Clubhouse/Main Road	\$118,044	\$163,401
	Ceiling Fans, Exterior Patio	\$1,350	\$1,869
	Circulating Water Pump (HWH)	\$1,600	\$2,215
	Entry Gate Mechanical System	\$10,000	\$13,842
	Entry Security Gates	\$7,000	\$9,690
	Entry System, Swipe Card	\$8,500	\$11,766
	Exhaust Fan (EF2, EF5) (Bathrooms)	\$1,500	\$2,076
	Exhaust Fans (EF1, EF3, EF4) (GN7)	\$1,350	\$1,869
	Exit/Emergency Signs	\$4,725	\$6,541
	Furniture, Main Floor Patio Chairs	\$7,680	\$10,631
	Gas Fireplace	\$2,500	\$3,461
	Irrigation System Allowance	\$10,000	\$13,842



## Disbursement Schedule

**Project Name:** Snowden Overlook Community Association  
**Project Location:** Columbia, Maryland  
**Project Number:** 14-0177 **Interest Rate:** 1.00%  
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Year	Description	Base Cost	Future Replacement Cost
	Kitchen Appliances (Lower Level)	\$2,200	\$3,045
	Kitchen Appliances (Main Level)	\$5,000	\$6,921
	Pool Coping Replacement	\$10,500	\$14,534
	Pool Furniture	\$12,000	\$16,611
	Pool Pumps	\$5,500	\$7,613
	Security System, Clubhouse (GN8)	\$2,900	\$4,014
		<b>\$212,349</b>	<b>\$293,941</b>
<b>2026</b>			
	AC Unit Guard House	\$800	\$1,141
	Drinking Fountain, Gym	\$1,200	\$1,711
	Office Equipment	\$5,000	\$7,129
		<b>\$7,000</b>	<b>\$9,980</b>
<b>2027</b>			
	Pool Whitecoat	\$43,200	\$63,441
		<b>\$43,200</b>	<b>\$63,441</b>
<b>2028</b>			
	Exercise Equip (2 pc)	\$10,000	\$15,126
		<b>\$10,000</b>	<b>\$15,126</b>
<b>2030</b>			
	Ceramic Tile (GN3)	\$33,200	\$53,276
	Concrete Pool Apron	\$89,850	\$144,183
	Exercise Equip (1 pc)	\$5,000	\$8,024
	Flooring, Wood Bamboo (GN6)	\$17,364	\$27,864
	Gutters/Leaders (Clubhouse/Guard Bldg)	\$5,138	\$8,245
	Interior Lighting Allowance (GN4)	\$22,500	\$36,106
	Roof, Shingles (Clubhouse/Guard Bldg)	\$32,271	\$51,785
	Saunas	\$9,000	\$14,442
	Windows, Casement (Exercise Room)	\$1,500	\$2,407
	Windows, Large Casement (Multi Room)	\$14,000	\$22,466
	Windows, Regular Casement	\$20,250	\$32,495
	Windows, Small Awning/Picture	\$29,000	\$46,536
		<b>\$279,073</b>	<b>\$447,830</b>



## Disbursement Schedule

**Project Name:** Snowden Overlook Community Association  
**Project Location:** Columbia, Maryland  
**Project Number:** 14-0177 **Interest Rate:** 1.00%  
**Date of Study:** June 2014 **Inflation Rate:** 3.00%

Year	Description	Base Cost	Future Replacement Cost
<b>2031</b>			
	Acoustic Panels, Banquet Room	\$5,000	\$8,264
	Awning Canopy Replacement	\$6,500	\$10,744
	Office Equipment	\$5,000	\$8,264
	Pool Heater Unit	\$10,500	\$17,355
	Security System, Guard House (GN8)	\$1,775	\$2,934
		<b>\$28,775</b>	<b>\$47,561</b>
<b>2032</b>			
	Exercise Equip (12pc)	\$60,000	\$102,146
		<b>\$60,000</b>	<b>\$102,146</b>
<b>2033</b>			
	Entry Gate Electronic Access Panel	\$10,000	\$17,535
		<b>\$10,000</b>	<b>\$17,535</b>
<b>2034</b>			
	Furniture, Main Floor Patio Chairs	\$2,880	\$5,202
	Furniture, Main Floor Patio Tables	\$6,000	\$10,837
		<b>\$8,880</b>	<b>\$16,038</b>
<b>2035</b>			
	Air Compressor, 3/4 hp	\$1,800	\$3,349
	Air Handler/Duct Heater	\$10,500	\$19,533
	Ceiling Fans, Gym	\$450	\$837
	Concrete Curb & Gutter 25%	\$26,572	\$49,432
	Electric Heater, Unit/Cabinet 5 KW	\$16,200	\$30,137
	Electric Heater, Wall 2 KW	\$4,600	\$8,557
	Electric Heater, Wall 4 KW	\$5,000	\$9,301
	Entry System, Swipe Card	\$8,500	\$15,813
	Exterior Lighting Allowance (GN5)	\$6,800	\$12,650
	Fire Alarm Control Panel/Components	\$5,700	\$10,604
	Floor, Carpet (GN2)	\$4,060	\$7,553
	Furniture, Clubhouse (GN1)	\$50,000	\$93,015
	HVAC Split System (2.5 Ton)	\$4,750	\$8,836



## Disbursement Schedule

**Project Name:** Snowden Overlook Community Association  
**Project Location:** Columbia, Maryland  
**Project Number:** 14-0177 **Interest Rate:** 1.00%  
**Date of Study:** June 2014 **Inflation Rate:** 3.00%

Year	Description	Base Cost	Future Replacement Cost
	HVAC Split System (3.5 Ton)	\$31,000	\$57,669
	HVAC Split System (5 Ton)	\$8,500	\$15,813
	HWH 100 Gallon	\$10,500	\$19,533
	Irrigation System Allowance	\$10,000	\$18,603
	Media/Movie Room Allowance	\$10,000	\$18,603
	Pool Coping Replacement	\$10,500	\$19,533
	Pool Filters	\$6,500	\$12,092
	Pool Furniture	\$12,000	\$22,324
	Pool Pumps	\$5,500	\$10,232
	Sauna Heaters	\$7,000	\$13,022
	Security System, Clubhouse (GN8)	\$2,900	\$5,395
	Sump Pump	\$450	\$837
		<b>\$259,782</b>	<b>\$483,271</b>
<b>2036</b>			
	Exercise Equip (2 pc)	\$10,000	\$19,161
	Game Room, Pool & Ping Pong Table	\$3,000	\$5,748
	Office Equipment	\$5,000	\$9,581
	Pool Whitecoat	\$43,200	\$82,776
		<b>\$61,200</b>	<b>\$117,266</b>
<b>2037</b>			
	Ceiling Fans, Exterior Patio	\$1,350	\$2,664
		<b>\$1,350</b>	<b>\$2,664</b>
<b>2038</b>			
	Exercise Equip (1 pc)	\$5,000	\$10,164
	Furniture, Folding	\$2,700	\$5,489
		<b>\$7,700</b>	<b>\$15,653</b>
<b>2040</b>			
	Exercise Equip (12pc)	\$60,000	\$129,395
	Fence, Clubhouse/Pool Area	\$25,460	\$54,907
		<b>\$85,460</b>	<b>\$184,302</b>
<b>2041</b>			
	AC Unit Guard House	\$800	\$1,777

## *Disbursement Schedule*

**Project Name:** Snowden Overlook Community Association  
**Project Location:** Columbia, Maryland  
**Project Number:** 14-0177 **Interest Rate:** 1.00%  
**Date of Study:** June 2014 **Inflation Rate:** 3.00%

<i>Year</i>	<i>Description</i>	<i>Base Cost</i>	<i>Future Replacement Cost</i>
	Acoustic Panels, Banquet Room	\$5,000	\$11,106
	Awning Canopy Replacement	\$6,500	\$14,438
	Drinking Fountain, Gym	\$1,200	\$2,666
	Office Equipment	\$5,000	\$11,106
	Security System, Guard House (GN8)	\$1,775	\$3,943
<b>2043</b>		<b>\$20,275</b>	<b>\$45,037</b>
	Entry Gate Electronic Access Panel	\$10,000	\$23,566
<b>2044</b>		<b>\$10,000</b>	<b>\$23,566</b>
	Exercise Equip (2 pc)	\$10,000	\$24,273
<b>2045</b>		<b>\$10,000</b>	<b>\$24,273</b>
	Sidewalks/Ramp, Clubhouse/Main Road	\$111,090	\$277,734
		<b>\$111,090</b>	<b>\$277,734</b>



## Reserve Fund Scenario

**Project Name:** Snowden Overlook Community Association    **Calculation Method:** Component  
**Project Location:** Columbia, Maryland  
**Project Number:** 14-0177    **Interest Rate:** 1.00%  
**Date of Study:** June 2014    **Inflation Rate:** 3.00%  
**Month Contributions Commence:** June 2014

Year	Opening Balance	Annual Contribution	Contribution Adjustment	Disbursements	Earned Interest	Closing Balance
2014	\$769,021	\$42,381	(\$62,177)	\$0	\$4,447	\$753,672
2015	\$753,672	\$74,833	(\$39,955)	\$50,882	\$7,725	\$745,392
2016	\$745,392	\$77,078	(\$27,271)	\$68,958	\$7,724	\$733,964
2017	\$733,964	\$79,390	(\$28,089)	\$0	\$7,617	\$792,882
2018	\$792,882	\$81,772	(\$24,999)	\$48,622	\$8,236	\$809,269
2019	\$809,269	\$84,225	(\$25,749)	\$0	\$8,411	\$876,156
2020	\$876,156	\$86,752	(\$13,611)	\$215,956	\$9,158	\$742,499
2021	\$742,499	\$89,354	(\$13,575)	\$22,476	\$7,836	\$803,638
2022	\$803,638	\$92,035	(\$13,982)	\$6,334	\$8,459	\$883,816
2023	\$883,816	\$94,796	(\$14,190)	\$17,158	\$9,274	\$956,538
2024	\$956,538	\$97,640	(\$14,569)	\$84,667	\$10,016	\$964,957
2025	\$964,957	\$100,569	(\$8,611)	\$293,941	\$10,148	\$773,121
2026	\$773,121	\$103,586	(\$8,836)	\$9,980	\$8,244	\$866,135
2027	\$866,135	\$106,694	(\$9,101)	\$63,441	\$9,190	\$909,477
2028	\$909,477	\$109,894	(\$9,374)	\$15,126	\$9,642	\$1,004,513
2029	\$1,004,513	\$113,191	(\$9,655)	\$0	\$10,605	\$1,118,654
2030	\$1,118,654	\$116,587	(\$2,369)	\$447,830	\$11,806	\$796,848
2031	\$796,848	\$120,085	(\$2,321)	\$47,561	\$8,606	\$875,657
2032	\$875,657	\$123,687	(\$2,390)	\$102,146	\$9,414	\$904,222
2033	\$904,222	\$127,398	(\$2,462)	\$17,535	\$9,720	\$1,021,343
2034	\$1,021,343	\$131,220	(\$2,536)	\$16,038	\$10,911	\$1,144,900
2035	\$1,144,900	\$135,156	(\$1,759)	\$483,271	\$12,171	\$807,197
2036	\$807,197	\$139,211	(\$1,812)	\$117,266	\$8,816	\$836,146
2037	\$836,146	\$143,387	(\$1,866)	\$2,664	\$9,128	\$984,131
2038	\$984,131	\$147,689	(\$1,922)	\$15,653	\$10,630	\$1,124,875
2039	\$1,124,875	\$152,120	(\$1,980)	\$0	\$12,063	\$1,287,078
2040	\$1,287,078	\$156,683	(\$1,568)	\$184,302	\$13,711	\$1,271,602
2041	\$1,271,602	\$161,384	(\$1,615)	\$45,037	\$13,582	\$1,399,915
2042	\$1,399,915	\$166,225	(\$1,664)	\$0	\$14,890	\$1,579,366
2043	\$1,579,366	\$171,212	(\$1,714)	\$23,566	\$16,712	\$1,742,010
2044	\$1,742,010	\$176,348	(\$1,765)	\$24,273	\$18,366	\$1,910,686





## Reserve Fund Scenario

<b>Project Name:</b>	Snowden Overlook Community Association	<b>Calculation Method:</b>	5% of Repl. Cost
<b>Project Location:</b>	Columbia, Maryland	<b>Minimum Balance</b>	\$50,345
<b>Project Number:</b>	14-0177	<b>Interest Rate:</b>	1.00%
<b>Date of Study:</b>	June 2014	<b>Inflation Rate:</b>	3.00%
<b>Month Contributions Commence:</b>	June 2014		

Year	Opening Balance	Annual Contribution	Contribution Adjustment	Disbursements	Earned Interest	Closing Balance
2014	\$769,021	\$22,851	\$0	\$0	\$4,530	\$796,402
2015	\$796,402	\$40,348	\$0	\$50,882	\$8,183	\$794,050
2016	\$794,050	\$41,558	\$0	\$68,959	\$8,166	\$774,815
2017	\$774,815	\$42,805	\$0	\$0	\$7,980	\$825,600
2018	\$825,600	\$44,089	\$0	\$48,622	\$8,495	\$829,561
2019	\$829,561	\$45,411	\$0	\$0	\$8,542	\$883,514
2020	\$883,514	\$46,774	\$0	\$215,956	\$9,089	\$723,420
2021	\$723,420	\$48,177	\$0	\$22,476	\$7,495	\$756,617
2022	\$756,617	\$49,622	\$0	\$6,334	\$7,835	\$807,740
2023	\$807,740	\$51,111	\$0	\$17,158	\$8,354	\$850,048
2024	\$850,048	\$52,644	\$0	\$84,667	\$8,786	\$826,811
2025	\$826,811	\$54,224	\$0	\$293,941	\$8,562	\$595,656
2026	\$595,656	\$55,850	\$0	\$9,980	\$6,259	\$647,785
2027	\$647,785	\$57,526	\$0	\$63,441	\$6,789	\$648,659
2028	\$648,659	\$59,252	\$0	\$15,126	\$6,808	\$699,593
2029	\$699,593	\$61,029	\$0	\$0	\$7,327	\$767,948
2030	\$767,948	\$62,860	\$0	\$447,830	\$8,020	\$390,998
2031	\$390,998	\$64,746	\$0	\$47,561	\$4,261	\$412,444
2032	\$412,444	\$66,688	\$0	\$102,146	\$4,486	\$381,472
2033	\$381,472	\$68,689	\$0	\$17,535	\$4,187	\$436,813
2034	\$436,813	\$70,750	\$0	\$16,038	\$4,751	\$496,275
2035	\$496,275	\$72,872	\$0	\$483,271	\$5,357	\$91,234
2036	\$91,234	\$75,058	\$0	\$117,266	\$1,319	\$50,345
2037	\$50,345	\$77,310	\$0	\$2,664	\$922	\$125,913
2038	\$125,913	\$79,629	\$0	\$15,653	\$1,691	\$191,581
2039	\$191,581	\$82,018	\$0	\$0	\$2,360	\$275,959
2040	\$275,959	\$84,479	\$0	\$184,302	\$3,217	\$179,352
2041	\$179,352	\$87,013	\$0	\$45,037	\$2,265	\$223,594
2042	\$223,594	\$89,623	\$0	\$0	\$2,721	\$315,939
2043	\$315,939	\$92,312	\$0	\$23,566	\$3,659	\$388,345
2044	\$388,345	\$95,082	\$0	\$24,273	\$4,398	\$463,552



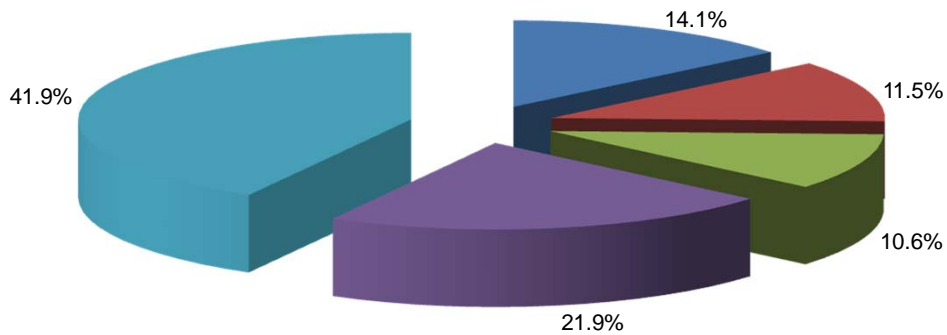
## Reserve Fund Scenario

<b>Project Name:</b>	Snowden Overlook Community Association	<b>Calculation Method:</b>	10% of Repl. Cost
<b>Project Location:</b>	Columbia, Maryland	<b>Minimum Balance</b>	\$100,691
<b>Project Number:</b>	14-0177	<b>Interest Rate:</b>	1.00%
<b>Date of Study:</b>	June 2014	<b>Inflation Rate:</b>	3.00%
<b>Month Contributions Commence:</b>	June 2014		

Year	Opening Balance	Annual Contribution	Contribution Adjustment	Disbursements	Earned Interest	Closing Balance
2014	\$769,021	\$23,678	\$0	\$0	\$4,532	\$797,231
2015	\$797,231	\$41,809	\$0	\$50,882	\$8,199	\$796,356
2016	\$796,356	\$43,063	\$0	\$68,959	\$8,197	\$778,658
2017	\$778,658	\$44,355	\$0	\$0	\$8,027	\$831,039
2018	\$831,039	\$45,685	\$0	\$48,622	\$8,558	\$836,660
2019	\$836,660	\$47,056	\$0	\$0	\$8,621	\$892,338
2020	\$892,338	\$48,468	\$0	\$215,956	\$9,186	\$734,035
2021	\$734,035	\$49,922	\$0	\$22,476	\$7,611	\$769,091
2022	\$769,091	\$51,419	\$0	\$6,334	\$7,969	\$822,146
2023	\$822,146	\$52,962	\$0	\$17,158	\$8,508	\$866,459
2024	\$866,459	\$54,551	\$0	\$84,667	\$8,960	\$845,303
2025	\$845,303	\$56,187	\$0	\$293,941	\$8,757	\$616,307
2026	\$616,307	\$57,873	\$0	\$9,980	\$6,477	\$670,676
2027	\$670,676	\$59,609	\$0	\$63,441	\$7,030	\$673,874
2028	\$673,874	\$61,397	\$0	\$15,126	\$7,071	\$727,217
2029	\$727,217	\$63,239	\$0	\$0	\$7,615	\$798,071
2030	\$798,071	\$65,136	\$0	\$447,830	\$8,334	\$423,710
2031	\$423,710	\$67,091	\$0	\$47,561	\$4,601	\$447,841
2032	\$447,841	\$69,103	\$0	\$102,146	\$4,853	\$419,651
2033	\$419,651	\$71,176	\$0	\$17,535	\$4,582	\$477,874
2034	\$477,874	\$73,312	\$0	\$16,038	\$5,176	\$540,323
2035	\$540,323	\$75,511	\$0	\$483,271	\$5,812	\$138,376
2036	\$138,376	\$77,776	\$0	\$117,266	\$1,805	\$100,691
2037	\$100,691	\$80,110	\$0	\$2,664	\$1,441	\$179,577
2038	\$179,577	\$82,513	\$0	\$15,653	\$2,243	\$248,681
2039	\$248,681	\$84,988	\$0	\$0	\$2,947	\$336,616
2040	\$336,616	\$87,538	\$0	\$184,302	\$3,840	\$243,692
2041	\$243,692	\$90,164	\$0	\$45,037	\$2,925	\$291,745
2042	\$291,745	\$92,869	\$0	\$0	\$3,420	\$388,034
2043	\$388,034	\$95,655	\$0	\$23,566	\$4,398	\$464,522
2044	\$464,522	\$98,525	\$0	\$24,273	\$5,179	\$543,953

## Present Fund By Category

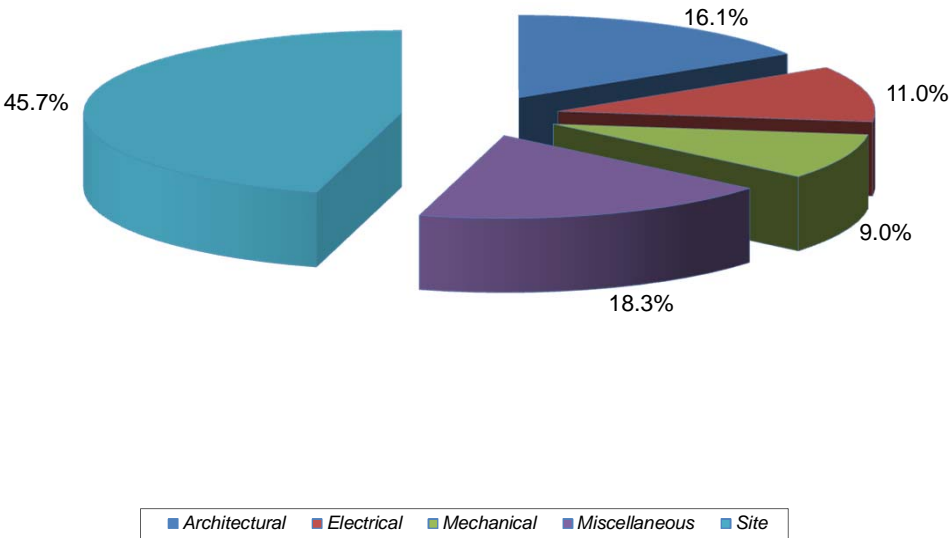
<b>Project Name:</b>	Snowden Overlook Community Association	<b>Interest Rate:</b>	1.00%
<b>Project Location:</b>	Columbia, Maryland	<b>Inflation Rate:</b>	3.00%
<b>Project Number:</b>	14-0177		
<b>Date of Study:</b>	June 2014		



■ Architectural   
 ■ Electrical   
 ■ Mechanical   
 ■ Miscellaneous   
 ■ Site

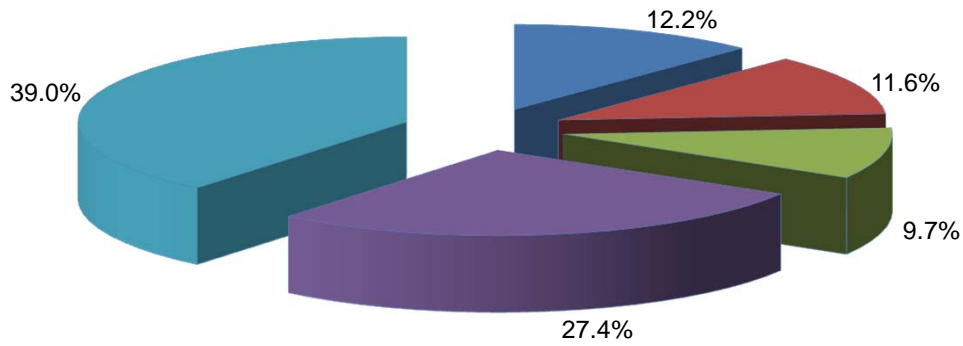
### Current Replacement Cost by Category

<b>Project Name:</b>	Snowden Overlook Community Association	<b>Interest Rate:</b>	1.00%
<b>Project Location:</b>	Columbia, Maryland	<b>Inflation Rate:</b>	3.00%
<b>Project Number:</b>	14-0177		
<b>Date of Study:</b>	June 2014		



## Annual Contribution by Category

<b>Project Name:</b>	Snowden Overlook Community Association		
<b>Project Location:</b>	Columbia, Maryland		
<b>Project Number:</b>	14-0177	<b>Interest Rate:</b>	1.00%
<b>Date of Study:</b>	June 2014	<b>Inflation Rate:</b>	3.00%

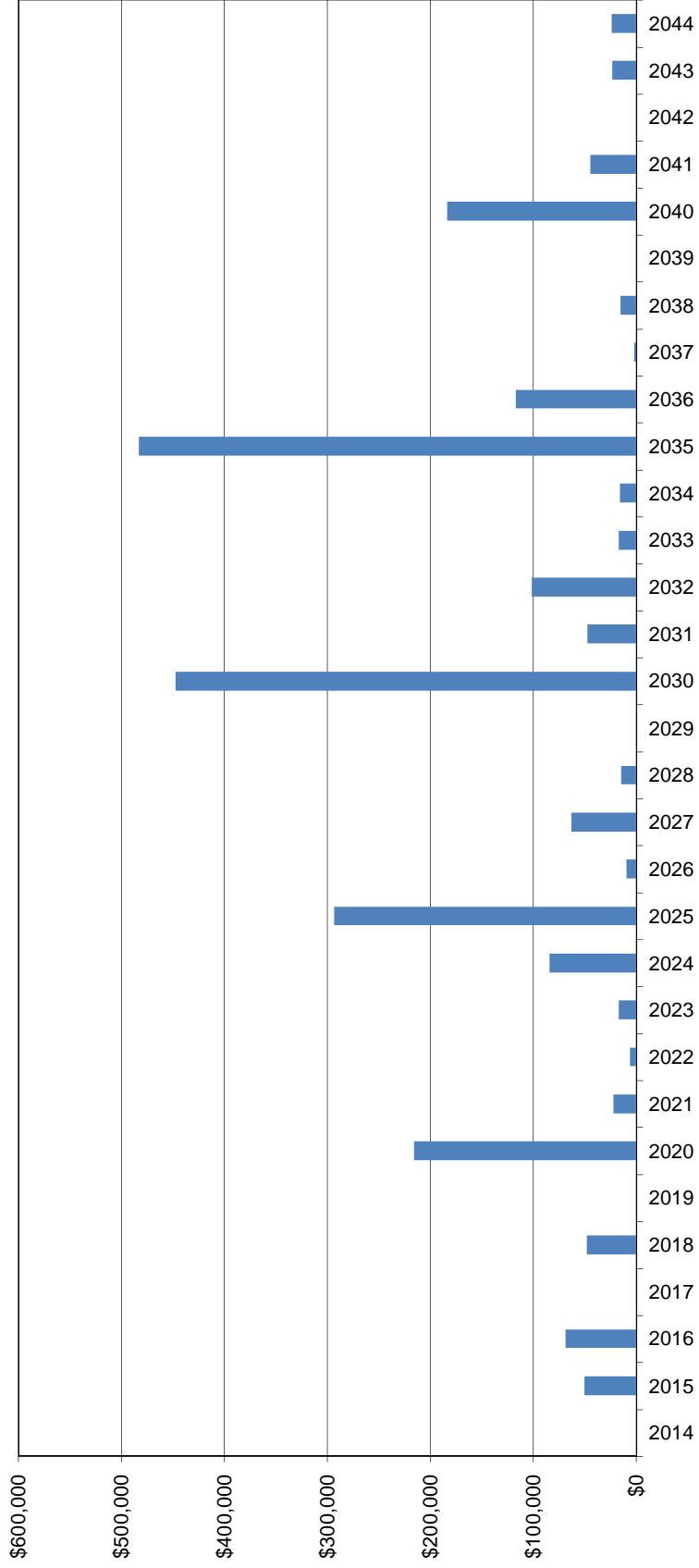


■ Architectural   
 ■ Electrical   
 ■ Mechanical   
 ■ Miscellaneous   
 ■ Site



## Disbursements by Year

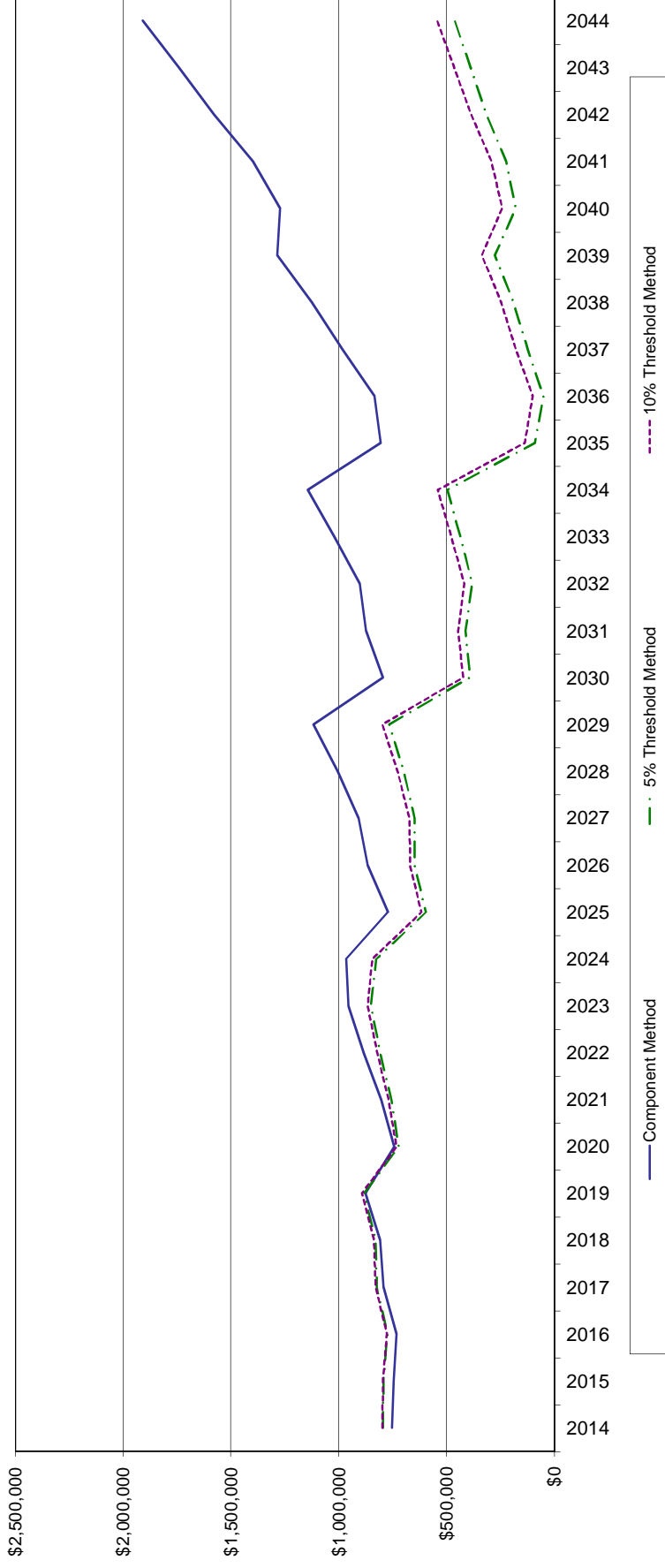
**Project Name:** Snowden Overlook Community Association  
**Project Location:** Columbia, Maryland  
**Project Number:** 14-0177  
**Date of Study:** June 2014  
**Interest Rate:** 1.00%  
**Inflation Rate:** 3.00%





## Reserve Fund Closing Balance Component vs. Cash Flow

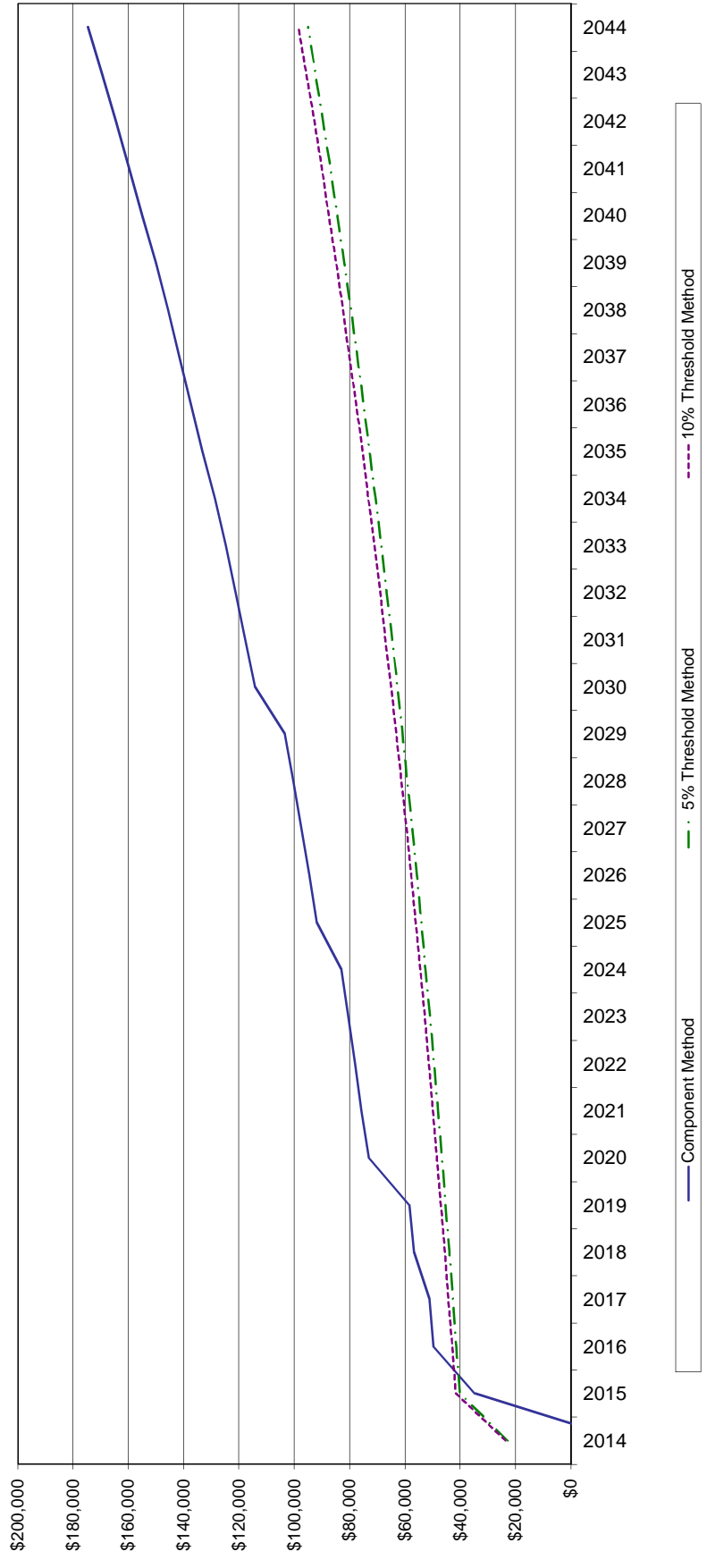
**Project Name:** Snowden Overlook Community Association  
**Project Location:** Columbia, Maryland  
**Project Number:** 14-0177  
**Date of Study:** June 2014  
**Interest Rate:** 1.00%  
**Inflation Rate:** 3.00%





## Reserve Fund Contributions Component vs. Cash Flow

**Project Name:** Snowden Overlook Community Association  
**Project Location:** Columbia, Maryland  
**Project Number:** 14-0177  
**Date of Study:** June 2014  
**Interest Rate:** 1.00%  
**Inflation Rate:** 3.00%





# Appendix

## 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 Allowance at the anticipated replacement time (end-of-life).

**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 "Annual Make-Up" (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 Annual Make-Up decreases each year in which a reserve fund for a capital component is fully funded.

**Current Replacement Cost** - The cost to replace the component at the time of this 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 conditions.

**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.

**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 fund are not reserved for specific components but are an unallocated pool, the total present fund is 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.

**Abbreviations:**

**EA** - Each

**LF** - Linear Foot

**LS** - Lump Sum

**SF** - Square Foot

**SY** - Square Yard