



MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.



(Final Report, Revised August 26, 2013)
Condition Assessment
and
Reserve Fund Plan
2014
for
Bethesda
Place
Bethesda, Maryland



Prepared for:
The Board of Directors
&
Allied Realty Corporation



MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.



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August 26, 2013

Ms. Sara Rossi, Manager
Allied Realty Corporation
7605 Arlington Road, Suite 100
Bethesda, Maryland 20814

RE: **CONDITION ASSESSMENT AND RESERVE FUND PLAN 2014**
Bethesda Place Community Council, Inc.
(Final Report, Revised August 26, 2013)
Bethesda, Maryland
Project No. 7535

Dear Ms. Rossi:

Mason & Mason Capital Reserve Analysts, Inc. has completed the final report for Bethesda Place.

The final report reflects changes, directed in your email of August 20, 2013.

We genuinely appreciate the opportunity to work with you and the Community Council.

Sincerely,

Mason & Mason Capital Reserve Analysts, Inc.

James G. Mason III, R. S.
Reserve Analyst



James G. Mason, R. S.
Principal



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FOREWORD

PLEASE READ THIS FIRST

This report contains information the Board requires to fulfill its fiduciary responsibilities with respect to the financial health of the Association. Even if you are already familiar with the concepts of capital reserve planning, it requires some study. The information in this report is vital to your Association's financial health. Unless you understand it, your Association may not follow it. This may lead to underfunding and financial stress at some time in the future.

Our years of experience providing reserve analysis to both first-time and multi-update return clients have compelled us to develop a logical funding approach, which is based on generational equity and fairness to common-interest property owners that helps ensure realistic reserve funding levels.

Our approach is neither standard, nor is it necessarily easy to understand without first becoming familiar with some basic concepts. Section 3 explains these concepts in more detail. We want you to understand them because a well-informed Association makes the best decisions for its common-property owners.

SUMMARY OF KEY ISSUES

Different readers will look for different things from this report. Perhaps the homeowner will just be looking for the high points. A prospective buyer may be looking at the general financial condition of the Association's reserves. A Board member should probe deeper in order to understand the financial tools that will be helpful in fulfilling their fiduciary responsibilities to the Association.

The Summary of Key Issues presents a recapitulation of the most important findings of Bethesda Place's Reserve Fund Plan. Each is discussed in greater detail in the body of the report. We encourage the reader to "go deeper" into the report, and we have written it in a way that's understandable to a first-time reader.

Analyzing the capital reserves reveals that:

- The reserve fund is approximately 85% funded through 2013. Our goal is to become fully funded by the end of the 20-year period (2033).

In order to achieve this goal the Community Council should:

- Set the annual contribution in 2014 to \$24,407, and plan on annual increases of 3.0% to reflect inflation thereafter.
- This sets the reserve fund at \$16.54 per residential unit, per month (based on 123 units).

Supporting data are contained in the body of this report, and we encourage the reader to take the time to understand it.

VISUAL EVALUATION METHODOLOGY

The first step in the process is collection of specific data on each of your community's commonly-held components. This information includes quantity and condition of each included component. We collect most of this data during the on-site field survey. When this information is not available in the field, we may obtain it by discussion with those knowledgeable through management or service activities.

The field survey or condition assessment is visual and non-invasive. We don't perform destructive testing to uncover hidden conditions; perform operational testing of mechanical, electrical, plumbing, fire and life safety protection; or perform code compliance analysis.

We make no warranty that every defect has been identified. Our scope of work doesn't include an evaluation of moisture penetration, mold, indoor air quality, or other environmental issues. While we may identify safety hazards observed during the course of the field survey, this report shouldn't be considered a safety evaluation of components.

Replacement costs are sometimes based on published references, such as R. S. Means. However, our opinions of replacement costs usually include removal and disposal and are usually based on experience with similar projects including information provided by local contractors and reported client experience. Actual construction costs can vary significantly due to seasonal considerations, material availability, labor, economy of scale, and other factors beyond our control.

Projected useful service lives are based on statistical data and our opinion of their current visual condition. No guarantee of component service life expectancies are expressed or implied and none should be inferred by this report. Your actual experience in replacing components may differ significantly from the projections in the report, because of conditions beyond our control or that were not visually apparent at the time of the survey.

1. INTRODUCTION

1.1 Background: Bethesda Place Community Council, Inc. is comprised of 93 townhomes and 30 single-family homes, located in Bethesda, Maryland. The community was constructed between 1970 and 1975. The community is split into two sections. Section one includes only the parking bays along Surreywood Lane and Derbyshire Lane. The streets in this section are public. Section two includes one driveline and the parking bays along Green Tree Road (7200) and an additional two drivelines and parking bays at the end of Green Tree Road (7300). The street layout includes concrete sidewalks, curbs and gutters, and 29 parking bays providing 186 spaces.

We are providing the Condition Assessment and Reserve Fund Plan based on Proposal Acceptance Agreement No. 7535 dated May 16, 2013. Our services are subject to all terms and conditions specified therein.

Mason & Mason did not review the declarations, covenants, or other organization documents pertaining to the establishment and governance of the Community Council. Ultimately, the establishment, management, and expenditure of reserves are within the discretion of the Council and its Board of Directors pursuant to their organizational documents and subject to the laws of the applicable jurisdiction. We are not otherwise financially associated with the Management Company or the Council and we therefore do not have any conflicts of interest that would bias this report. Information provided by Management is deemed reliable. This report is not intended to be an audit or a forensic investigation. This report is not a mandate, but is intended to be a guide for future planning.

James G. Mason III, R. S. conducted the field evaluation for this Level I report on July 17, 2013. The weather was clear and the temperature was approximately 91 degrees F. Precipitation had not occurred for several days prior to the site visit. The pavements, walkways, and grounds were generally dry and clean of debris.

1.2 Principal Findings: The common assets appear to be in overall fair to good condition. The community is now reaching a 40-year benchmark in terms of replacement of major systems. The drivelines and parking bays of Phase 1 appear to be original and range from fair to poor condition. Although the asphalt has received recent pavement maintenance, such as crack filling and seal coating, approximately two years ago, a significant amount of deflection was still observed. We suggest that the Phase 1 pavement receive full milling, to a possible depth of 2 ½ inches, and asphalt replacement. Since the asphalt recently received pavement maintenance, we suggest that the Phase 1 restoration project be completed after a few more years of service. The Phase 2 pavement is in good condition, as it received restoration approximately 10 years ago. Pavement maintenance should continue every six years, which should include full-depth repairs, crack filling, and seal coating. The asphalt footpath is in generally poor condition, with heavy longitudinal and transverse cracking observed. Tripping hazards were observed on the path, which should be corrected near-term.

There is a minor amount of cracked and settled concrete sidewalks, which are potential tripping hazards. The liability and costs associated with personal injury lawsuits resulting primarily from sidewalk and curb tripping hazards are too great to defer repair. It is our opinion that addressing deficiencies, which pose a hazard to pedestrians, should not be deferred. As such, we recommend correcting the minor tripping hazards observed throughout the sidewalks as soon as practicable. The curb and gutters appear to be in fair condition, with minor cracking and settlement observed in a few locations.

Site features, such as the stone entrance monuments, carved wood signs, street and informational signage, light poles and fixtures, stone retaining wall, and the mailbox stations range from fair to good condition.

Financially, the community requires a substantial increase in contributions to reserves, and we have established a sufficient contribution schedule to eventually achieve the fully funded goal.

In order to maintain the physical attributes that preserve property values and provide a safe environment for occupants and guests, a series of capital expenditures should be anticipated. Consequently, we have scheduled near-, mid-, and late-term restoration and replacement projects based on anticipated need from our experience with similar properties.

Generally, our approach is to group appropriately related component replacement items into projects. This creates a more realistic model and allows a grouping time line that is more convenient to schedule and logical to accomplish. Please see the Table 1 Discussion, Column 18, and the Asphalt Pavement Report in Section 7, for specific information.

2. FINANCIAL ANALYSIS

We are currently in unprecedented financial times. Previous standardized methods for determining or projecting inflation and interest income are not currently reliable. Recent inflation experience has surpassed government CPI and construction cost sources. This appears to result from a combination of factors, particularly wage rates and demand for services. We track the inflation rate among our clients based on their reported costs for typical services. A 3.5% annual rate reflects their general experience over the past decade. However, currently we are seeing somewhat lower rates and we are using 3%. Interest income has dropped substantially, and many smaller Associations are reduced to savings accounts or certificates of deposit, which are yielding only 1% to 2%.

Unlike reserves, interest income is taxable, so this further reduces the net gain. The combination of ever higher costs and lower interest income is driving reserve funding requirements substantially higher. It is impossible to forecast whether anticipated lower demand will help reduce or stabilize costs in the future. You can only delay repairs for so long.

During these times, it is prudent to keep a close watch on the economy and be ready to respond by updating the reserve fund plan as economic changes dictate.

Since asphalt pavement is particularly sensitive to oil costs and is generally the single most expensive component in many communities who own their streets, reserve fund plan pavement costs should be adjusted periodically to reflect market conditions. Gasoline prices do not necessarily reflect asphalt prices. Refinery practices combined with government plans for massive infrastructure projects will most likely result in continued shortages and subsequent higher costs for both asphalt and concrete products.

2.1 Calculation Basics: The Community Council is on a calendar fiscal year. Management reported that the un-audited reserve fund balance, including cash and securities, as of **December 31, 2013**, is projected to be approximately **\$104,475 (12-31-12 reported balance -\$100,693 + 2013 contribution \$3,782)**. We have used a **2.00%** annual interest income factor and a **3.0%** inflation factor in our calculations. The total expenditures for the twenty-year period for both the **Cash Flow Method** and **Component Method** are projected to be **\$535,915**.

2.2 Funding Analysis, Cash Flow Method, Hybrid Approach (Table 3): This plan provides the annual contributions necessary to maintain balances consistent with the **fully funded goal by setting the annual contribution to \$24,407 in 2014 and providing an annual escalation factor of 3.00%, matching inflation thereafter. This plan allows for a gradual increase over time and addresses generational equity issues.** The total for all annual contributions for the twenty-year period would be **\$655,831**, and the total interest income is projected to be **\$60,712**. **The fully funded balance in 2033 is \$285,103.**

2.3 Funding Analysis, Component Method (Table 4): This method of funding would require variable annual contributions, averaging **\$32,167** over the twenty-year period. The total for all annual contributions would be **\$643,348**, and the total interest income is projected to be **\$73,195**. **The fully funded balance in 2033 is \$285,103.** The Component Method model considers the current reserve fund balance in computing individual component contributions for current cycles. The Component Method model distributes the current reserve fund balance proportionally to all components prior to calculating the individual component contributions for each component cycle.

3. METHODS OF FUNDING

Once the data are compiled, our proprietary software produces two distinct funding methods. These are the **Component Method and Cash Flow Method**. Each of these methods is used in analyzing your Association's reserve status and each plays a role in the Board's decision on how to fund reserves. While we provide the guidance, the choice of funding method is ultimately the prerogative of the Board. Considering the vulnerability of the Association's assets, its risk tolerance, and its ability to fund contributions, the Board should decide how the Association will fund its reserves and at what level.

3.1 Component Method: As reserve analysts, we recognize the value of Component Method calculations as they address both future replacement costs and the time remaining to fund them. **This is the foundation of the savings concept. You will see the term "fully funded."** This simply means you are on schedule, in any given year, to accrue sufficient funds by the component's replacement date. It does not mean you must have 100% of the funds ahead of time. Simplified Example: A component

projected to cost \$1,000 at the end of its 10-year life cycle would require a \$100 annual contribution in each of the 10 years. As long as you follow this contribution plan, the component is "fully funded."

Prior to determining the actual required annual contribution, a complex calculation apportions the existing reserve fund to each component. Each component's remaining unfunded balance forms the basis for the required contribution going forward.

Funds set aside for replacement of individual components are not normally used for the replacement of other components, even though the funds reside in the same bank account. In rare cases where a reserve fund is actually overfunded, \$0 will be displayed on the Component Method tables, indicating that the component is fully funded for that cycle.

While the time basis for the report is a 20-year period, the Component Method allows for inclusion of long-life components that may require replacement after the specified period. **This allows for funding of long-life components contemporaneously, which is fundamentally fair if they are serving the current owners. This is in contrast to saying "if it doesn't require replacement within our 20-year period, we're going to ignore it."**

Due to replacement cycle time and cost differentials, the Component Method typically results in annual contribution fluctuations, which often makes it difficult for a Board to implement. **However, its guidance is essential and invaluable for understanding funding liabilities and making informed recommendations.**

Table 4 shows these calculations, as well as projects interest income, expenses with inflation, and yearly balances, which will be "fully funded."

3.2 Cash Flow Method: The Cash Flow Method is easier to implement. It is a simple 20-year spread sheet that includes the starting balance, current contribution, interest income, inflation rate, projected expenses, and resulting yearly balances. The Cash Flow Method pools the contributions allocated to each of the Association's common components into a single "account."

Table 3 shows these calculations. This table reflects the information you provided on your reserve fund balance and current contribution. It also shows projected yearly positive or negative balances. **The Cash Flow Method doesn't include replacement funding for anything beyond the 20-year period, thus leaving a potential shortfall in funding and failing to address generational equity if not specifically set to do so.** It doesn't provide any real guidance beyond the basic information. There are several variations on cash flow goals such as Threshold Funding (just enough to stay positive) and Percentage Funding (a predetermined level based on some arbitrary percentage), but these schemes don't address the reality of fully funding, and typically are just a way of passing the obligation on to the next generation.

3.3 Hybrid Approach: Please note that this is not a method, rather a way (approach) for us to utilize the Cash Flow Method, while insuring the appropriate funding levels are achieved long-term. Our Hybrid Approach uses the projected fully funded balance at the end of the 20-year period from Table 4 as a funding goal. We then set up Cash Flow funding plans. Table 3 is your "where we are now" Cash Flow spreadsheet modeling your reserve balance and current contribution. Table 3.1 (and possibly others) provides alternative(s) to this that meet the fully funded goal from Table 4.

We usually establish a new Cash Flow contribution that requires only small annual inflationary increases to reach the fully funded goal at the end of the 20-year period. This has the added effect of establishing a funding plan that addresses inflation. The contribution in the first year, adjusted for inflation, is equal to the contribution in the last year, based on inflated dollars (future value of money). This approach will also allow underfunded Associations the time to catch up, mitigating undue hardships. It balances the risk of temporary underfunding with the benefit of consistent predictable increasing contributions. The combination of the Component and Cash Flow Methods (Hybrid Approach) provides the advantages of both methods.

4. RESERVE PROGRAMMING

The Mason & Mason proprietary software used to produce the financial tables (Tables 1 through 4) have been under continual refinement for over a decade. It is unique in the industry as it provides comprehensive modeling through Microsoft Access and Excel that addresses the many challenges of reserve funding, allows analysts and clients to run "what if" scenarios, provides an easy to understand matrix of views and functions, and is easily provided to clients through e-mail.

4.1 Interest Income on Reserve Funds: Most Associations invest at least part of their reserve funds. Small Associations may simply use a savings account or certificates of deposit, while large Associations may have multiple investments with short-, medium-, and long-term instruments. One issue that is difficult to quantify is the percentage of funds invested. Some Associations invest a fairly substantial portion, while others hold back due to current cash outflow obligations. Some Associations do not reinvest the investment proceeds in their reserves; rather they divert the cash into their operations fund. We do not agree with this approach as it has the effect of requiring additional reserve contributions to make up for the difference. There is also the issue of changing rates over the 20-year period. In the recent past we have seen large swings in relatively short time periods. While reserve funds are not usually taxable by the IRS, the investment income generated by the reserve fund is taxable in most situations. Even with all these potential pitfalls, investment income still represents a substantial source of additional funds and for this reason should not be ignored. There is no way to make "one size fits all" with any accuracy for the individual Association. Our approach to this dilemma is to use lower approximations that compensate for less than 100% of funds invested. We feel this is still better than not recognizing it, and periodic updates allow for adjustments based on experience. The rate can be set at any level, including zero, for Associations desiring to not recognize interest. **The rate should reflect, as accurately as possible, the actual composite rate of return on all securities and other instruments of investment including allowances for taxes.**

The interest income displayed on Table 3 and Table 4 is the summation of the beginning reserve fund interest accrual and the interest earned on the contributions minus the interest lost by withdrawing the capital expenditures. This method of calculation, while not exact, approximates the averages of the three principal components of a reserve fund for each twelve-month period.

4.2 Future Replacement Costs (Inflation): Inflation is a fact of life. In order to replicate future financial conditions as accurately as possible, inflation on replacement costs should be recognized. The financial tables have been programmed to calculate inflation based upon a pre-determined rate. This rate can be set at any level, including zero. **A plan that doesn't include inflation is a 1-year plan, and any data beyond that first year won't reflect reality.**

4.3 Simultaneous Funding: This is a method of calculating funding for multiple replacement cycles of a single component over a period of time from the same starting date. Simple Example: Funding for a re-roofing project, while, at the same time, funding for a second, subsequent re-roofing project. This method serves a special purpose if multiple-phase projects are all near-term, but will result in higher annual contribution requirements and leads to generational equity issues otherwise. We use this type of programming only in special circumstances.

4.4 Sequential Funding: This is a method of calculating funding for multiple replacement cycles of a single component over a period of time where each funding cycle begins when the previous cycle ends. Simple Example: Funding for the second re-roofing project begins after the completion of the initial re-roofing project. This method of funding appears to be fundamentally equitable. We use this type of programming except in special circumstances.

4.5 Normal Replacement: Components are scheduled for complete replacement at the end of their useful service lives. Simple Example: An entrance sign is generally replaced all at once.

4.6 Cyclic Replacement: Components are replaced in stages over a period of time. Simple Example: Deficient sidewalk panels are typically replaced individually as a small percentage, rather than the complete system.

4.7 Minor Components: A minimum component value is usually established for inclusion in the reserve fund. Components of insignificant value in relation to the scale of the Association shouldn't be included and should be deferred to the operations budget. A small Association might exclude components with aggregate values less than \$1,000, while a large Association might exclude components with aggregate values of less than \$10,000. Including many small components tends to over complicate the plan and doesn't provide any relative value or utility.

4.8 Long Life Components: Almost all Associations have some components with long or very long useful service lives typically ranging between thirty and sixty years. Traditionally, this type of component has been ignored completely. Simple Example: Single replacement components such as entrance monuments should be programmed for full replacement at their statistical service life. This allows for all common property owners to pay their fair share during the time the component serves them. This also has the added effect of reducing the funding burden significantly as it is carried over many years.

4.9 Projected Useful Service Life: Useful service lives of components are established using construction industry standards and our local experience as a guideline. Useful service lives can vary greatly due to initial quality and installation, inappropriate materials, maintenance practices or lack thereof, environment, parts attrition, and obsolescence. By visual observation, the projected useful service life may be shortened or extended due to the present condition. The projected useful service life is not a mandate, but a guideline, for anticipating when a component will require replacement and how many years remain to fund it.

4.10 Generational Equity: As the term applies to reserves, it is the state of fairness between and over the generations relating to responsibility for assets you are utilizing during your time of ownership. It is neither reasonable, nor good business to defer current liabilities to future owners. This practice is not only unfair; it can also have a very negative impact on future property values.

5. UPDATING THE RESERVE FUND PLAN

A reserve fund plan should be periodically updated to remain a viable planning tool. Changing financial conditions and widely varying aging patterns of components dictate that revisions should be undertaken periodically from one to five years, depending upon the complexity of the common assets and the age of the community. Weather, which is unpredictable, plays a large part in the aging process.

Full Updates (Level II) include a site visit to observe current conditions. These updates include adjustments to the component inventory, replacement schedules, annual contributions, balances, replacement costs, inflation rates, and interest income.

We encourage Associations that are undergoing multiple simultaneous or sequential costly restoration projects (usually high rise buildings) to perform Level III Administrative Updates. Administrative updates do not include a condition assessment. They are accomplished by comparing original projections with actual experience during the interim period as reported by Management. These updates can be performed annually and include adjustments to the replacement schedules, contributions, balances, replacement costs, inflation rates, and interest income. The Level III Administrative Update can be a cost-effective way of keeping current between Level II Full Update cycles. Full Updates (Level II) and Administrative Updates (Level III) help to ensure the integrity of the reserve fund plan.

6. PREVENTIVE MAINTENANCE

The following preventive maintenance practices are suggested to assist the Association in the development of a routine maintenance program. The recommendations are not to be considered the only maintenance required, but should be included in an overall program. The development of a maintenance checklist and an annual condition survey will help extend the useful service lives of the Association's assets.

This section includes best maintenance practices or life-extension maintenance for many, but not necessarily all, components in the report. Items for which no maintenance is necessary, appropriate or beyond the purview of this report are not included in this section. We typically include them for townhomes and garden condominiums while mid- and high-rise buildings are generally too complex.

6.1 Asphalt Pavement: Pavement maintenance is the routine work performed to keep a pavement, subjected to normal traffic and the ordinary forces of nature, as close as possible to its as-constructed condition. Asphalt overlays may be used to correct both surface deficiencies and structural deficiencies. Surface deficiencies in asphalt pavement usually are corrected by thin resurfacing, but structural deficiencies require overlays designed on factors such as pavement properties and traffic loading. Any needed full-depth repairs and crack filling should be accomplished prior to overlaying. The edgemoil and overlay process includes milling the edges of the pavement at the concrete gutter and feathering the depth of cut toward the center of the drive lane. Milling around meter heads and utility features is sometimes required. The typical useful life for an asphalt overlay is twenty years.

6.2 Asphalt Seal Coating: The purpose is to seal and add new life to a roadway surface. It protects the existing pavement but does not add significant structural strength. A surface treatment can range from a single, light application of emulsified asphalt as a "fog" seal, to a multiple-surface course made up of alternate applications of asphalt and fine aggregate. Seal coating of all asphalt pavements should be performed at approximately six-year intervals, or approximately twice during the service life of the asphalt pavement. Seal coating more often is generally not cost-effective. The material used should be impervious to petroleum products and should be applied after crack filling, oil-spot cleaning, and full-depth repairs have been accomplished. Seal coating is a cost-effective way of extending the life of asphaltic concrete pavement. Seal coating is generally not scheduled for up to five years after an asphalt restoration project.

6.3 Mill and Replace Asphalt: This method is employed when asphalt is in total or nearly total failure. Extensive alligator cracking, deflection, and potholes indicates that water infiltration has allowed clay and soil beneath the pavement to intrude into the sub-base gravel, causing it to lose its coefficient of friction allowing the breakdown of the pavement structure. In this case, the pavement is completely milled off, the sub-base removed, replaced, and compacted, prior to installation of the sub-base layer of asphalt, followed by the wear course asphalt.

6.4 Asphalt Full-Depth Repairs: In areas where significant alligator cracking, potholes, or deflection of the pavement surface develops, the existing asphalt surface should be removed to the stone base course and the pavement section replaced with new asphalt. Generally, this type of failure is directly associated with the strength of the base course. When the pavement is first constructed, the stone base consists of a specific grain size distribution that provides strength and rigidity to the pavement section. Over time, the stone base course can become contaminated with fine-grained soil particles from the supporting soils beneath the base course. The most positive repair to such an area is to remove the contaminated base course and replace it with new base stone to the design depth. It is appropriate to perform these types of repairs immediately prior to asphalt restoration projects. Generally, this type of repair should not be required for approximately five years after an asphalt restoration project.

6.5 Asphalt Crack Filling: Cracks that develop throughout the life of the asphalt should be thoroughly cleaned of plant growth and debris (lanced) and then filled with a rubberized asphalt crack sealant. If the crack surfaces are not properly prepared, the sealant will not adhere. Crack filling should be accomplished every three to six years to prevent infiltration of water through the asphalt into the sub-grade, causing damage to the road base. It is appropriate to perform these types of repairs immediately prior to edgemoil and overlay. Generally, this type of repair should not be required for approximately five years after an edgemoil and overlay project.

6.6 Asphalt Footpaths: Transverse and longitudinal cracks should be cleaned of debris and plant growth (lanced) and filled with a rubberized asphaltic compound to prevent water infiltration. Cracks and deflection of the asphalt pavement can develop in the areas where tree roots cross the path. Tree roots should be removed and damaged areas repaired. An additional maintenance issue with footpaths is vegetation control. In areas where vegetation encroaches on the paths, both underfoot and overhead, visibility is reduced and personal injury can occur from low-growing branches. Vegetation control should be accomplished on a regular basis under the maintenance budget for safety considerations and to extend the useful service life of the pavement.

6.7 Concrete Sidewalks: When sidewalks are cracked or scaled or sections have settled, the resulting differential or "tripping hazard" can present a liability problem for the Association if personal injury should occur as a result. Tripping hazards should be repaired expeditiously to promote safety and prevent liability problems for the community. Generally, where practical and appropriate, concrete element repairs and replacements are scheduled in the same years to promote cost efficiencies. Replacements are usually scheduled in cycles because the necessity of full replacement at one time is unlikely. Typically, damaged or differentially settled sections can be removed by saw cutting or jack hammer and re-cast. Concrete milling of the differential surfaces is sometimes an appropriate, cost-effective alternative to re-casting. Skim coating is not an effective repair for scaled or settled concrete surfaces and, over time, will usually worsen the problem.

6.8 Concrete Curbs and Gutters: Vehicle impacts, differential settlement, construction damage, and cracking and spalling of the concrete will eventually result in the need for replacement of some curb sections. A typical damaged or settled section, usually 10 feet in length, will be removed by saw cutting or jack hammer and re-cast. Replacements are scheduled in cycles because the necessity of full replacement at one time is unlikely.

6.9 Stone Monument Repair: Stone monuments should be inspected periodically for cracks indicating settlement problems. All vegetation, such as vines, tree limbs, and tree roots should be kept clear to prevent damage. As stone monument walls age, depending upon the initial quality of the mortar and the long-term environment of the wall, mortar joints may deteriorate. This condition can be corrected by tuckpointing. Deteriorated or cracked mortar should be removed, and the void should then be filled with new mortar. Major settlement cracks or deflection may require the rebuilding of that section.

6.10 Entrance Signage: The wood components of entrance signs should be periodically cleaned of loose paint, lamination cracks should be re-sealed, and the sign repainted to maintain appearance. Out-of-plumb posts should be straightened and secured.

6.11 Street Signage: Metal perforated-post and pressure-treated wood post street signs generally require very little maintenance over their useful service life. Signage tends to fade due to environmental exposure. Cleaning of peeled paint, periodic cleaning of rust (metal posts) and repainting of wood and metal posts will maintain appearance. There is little that can be done with the signs except to replace them periodically. The wood components of entrance signs should be periodically cleaned of loose paint and repainted to maintain appearance. Out-of-plumb posts should be straightened and secured.

6.12 Light Poles: Outdoor lighting has a limited service life because of the accelerated aging process due to weather extremes. Remediation of the pole fixtures is a viable alternative to full replacement and would include painting the poles along with lamp housing replacement, including ballasts and capacitors. Any poles observed to be out of plumb should be straightened. Periodic cleaning of peeling paint and rust, priming and re-painting of poles and fixtures will help extend the useful service life.

6.13 Stone Retaining Wall Repair: Stone retaining walls should be inspected periodically for cracks indicating settlement problems. All vegetation, such as vines, tree limbs, and tree roots should be kept clear of the stone wall to prevent damage. As stone retaining walls age, depending upon the initial quality of the mortar and the long-term environment of the wall, mortar joints may deteriorate. This condition can be corrected by tuckpointing. Deteriorated or cracked mortar should be removed, and the void should then be filled with new mortar. Major settlement cracks or deflection may require the rebuilding of that section of the wall.

6.14 Tree Trimming, Removal, and Replacement: As communities age, trees, both native and planted, may become problematic if periodic care is not accomplished. Trees may become damaged by weather or disease, or they may outsize their location. Proper, diligent tree trimming may alleviate future problems with regard to damage to adjacent structures. Proper tree trimming also helps maintain a healthy tree and may reduce windage in inclement weather. Proper tree trimming should not be confused with the common practice of topping, which produces not only an unattractive tree, but also an unhealthy one due to weakening of the root structure. Tree root damage of asphalt footpaths and sidewalks is also a common problem. The best solution is re-routing the adjacent structure, if possible, to prevent future damage. If re-routing is not possible, tree roots causing the damage may be pruned back when replacement of the damaged component is accomplished. The practice of moderate mulching is beneficial for trees. However, repeated mulching against the tree trunk, year after year, without removal of the old mulch can eventually kill trees by trapping moisture against the bark, allowing fungi and insects to easily infiltrate the tree. Mulch should be placed around trees to the drip line, but should not be touching the bark.

7. ASPHALT PAVEMENT REPORT

Street Name	Total SY Asphalt Pavement	SY Full-Depth Repairs	Linear Footage Cracks	Parking Spaces	Parking Bays
Phase 1					
Derbyshire Lane (Parking bays included only)	216	Mill	86	12	6
Surreywood Lane (Parking bays included only)	1,548	Mill	618	86	12
Green Tree Road (7200 block - driveline and parking bays)	1,463	Mill	731	42	5
Subtotal	3,227	Mill	1,435	140	23
Phase 2					
Green Tree Road (7300 block - drivelines and parking bays)	2,251	12	20	46	6
TOTALS	5,478	Mill/12	1,455	186	29

All quantities approximate

Reserve Fund Plan for
BETHESDA PLACE COMMUNITY COUNCIL,
INC.
Bethesda, Maryland

COMPONENT DATA AND
ASSET REPLACEMENT SCHEDULE

TABLE 1
2014 Through 2033

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18
Component No.	Component	Quantity	Unit of Measurement	Unit Cost	Total Asset Base	Typical Service or Cycle Life in Yrs	1st Cycle Year	Percentage of Replacement	Cost For 1st Cycle	2nd Cycle Year	Percentage of Replacement	Cost For 2nd Cycle	3rd Cycle Year	Percentage of Replacement	Cost For 3rd Cycle	DISCUSSION
1 ASPHALT COMPONENTS																
1.1	Asphalt Restoration Project - Phase 1	3,227	SY	\$15.00	\$48,405	18	2016	100%	\$51,353	2034	100%	\$87,425				Phase 1 includes the Derbyshire Lane, Surreywood Lane, and the 7200 block of Greentree Road asphalt parking bays and one driveline. Neither the depth nor the sub-base of the pavement could be visually determined. We understand that the pavement is original, and it is in poor condition. Heavy areas of alligator cracking (indicative of sub-base damage or insufficient asphalt depth) were observed on the drivelines and parking bays. Restoration includes milling to a possible depth of 2 1/2" and asphalt replacement. Core sampling should be used to determine the depth and condition of the sub-base and pavement prior to restoration. Costs include striping, but not replacement of any inadequate sub-base.
1.2	Asphalt Restoration Project - Phase 2	2,251	SY	\$13.00	\$29,263	18	2022	100%	\$37,069	2040	100%	\$63,108				Phase 2 includes the 7300 block of Greentree Road asphalt drivelines and parking bays. Neither the depth nor the sub-base of the pavement could be visually determined. We understand that the pavement was restored circa 2003, and it is in generally good condition. One very minor area of alligator cracking (indicative of sub-base damage or insufficient asphalt depth) was observed on one driveline. Restoration includes edgemilling and overlay with 1-1/2" new compacted asphalt. Core sampling should be used to determine the depth and condition of the sub-base and pavement prior to restoration. Costs include striping, but not replacement of any inadequate sub-base.
1.3	Asphalt Seal Coat	5,478	SY	\$1.20	\$6,574	6	2022	59%	\$4,913	2028	100%	\$9,943	2034	41%	\$4,868	All pavements received seal coating circa 2011. Seal coating helps prevent water infiltration into the sub-base through micro-cracks. To help extend the service life of the pavement and improve curb appeal, we have scheduled seal coating projects every six years, except in the year of the pavement restoration project. Crack filling and full-depth repairs should be completed prior to application to achieve maximum benefit from the seal coating. Seal coating projects include striping.
1.4	Asphalt Repair Allowance	1	LS	\$10,000.00	\$10,000	6	2016	65%	\$6,896	2022	50%	\$6,334	2028	50%	\$7,563	The Phase 1 original pavement is heavily alligator cracked or deflected (indicative of sub-base damage), with about 1,435 linear feet of non-filled longitudinal or transverse cracking. Phase 2 pavement is in good condition, with a minor amount of deflected pavement. Repairs are essential in order to achieve the projected remaining service life of the pavement. Full-depth repairs and crack filling are scheduled every six years throughout the study period, including the year of the asphalt restoration project. See the Asphalt Pavement Report, Section 7, for additional details.
1.5	Asphalt Footpath	140	SY	\$36.00	\$5,040	15	2014	50%	\$2,520	2024	50%	\$3,387	2034	50%	\$4,551	An asphalt footpath generally 4' in width is constructed behind the townhomes on Surrywood Lane. The footpath is in generally poor condition. We observed significant transverse cracking and tripping hazards. We have scheduled its restoration near-term.
2 CONCRETE COMPONENTS																
2.1	Concrete Sidewalks	12,160	SF	\$11.50	\$139,840	5	2014	2%	\$2,797	2018	3%	\$4,722	2023	3%	\$5,474	Concrete sidewalks, generally 4', 5', or 6' wide, are present on one or both sides of streets or adjacent to parking bays within the townhome community. Their thickness could not be visually determined. They are in generally good condition. About 38 square feet (less than 1% of the total area) is either cracked, settled or heaved between sections. We have not scheduled replacement of all sections with lesser surface defects. Severely scaled sections will tend to deteriorate more quickly over time and should be replaced in each replacement cycle. Cyclic repairs are scheduled, as full replacement at one time is not appropriate or anticipated. Concrete repairs are scheduled to coincide with work on other concrete components to take advantage of economies of scale in packaging concrete restoration work. The Board should be aware that repairs to small quantities of concrete may be more costly because of the difficulty of attracting competitive bids for small projects, which may not meet contractor minimums. Any trip hazards or surface deficiencies should be addressed as soon as practicable to prevent personal injury.
2.2	Concrete Curbs & Gutters	2,648	LF	\$36.00	\$95,328	5	2014	2%	\$1,907	2018	2%	\$2,146	2023	2%	\$2,488	The drivelines and parking bays are lined with standard-profile, cast-in-place, concrete curbs and gutters. They are in generally good condition with about 1.8% of the length exhibiting transverse cracks or settled sections. We observed approximately nine damaged sections, which should be replaced. Minor chips usually do not justify replacement. Curb paint is in fair condition and curbs can be repainted under the operations budget. Cyclic repairs are scheduled, as full replacement at one time is not appropriate or anticipated. Curb repairs are scheduled to coincide with work on other concrete components to maximize economies of scale. The Board should be aware that repairs to small quantities of concrete may be more costly because of the difficulty of attracting competitive bids for small projects, which may not meet contractor minimums. Any trip hazards or surface deficiencies should be addressed as soon as practicable to prevent personal injury.
3 SITE FEATURES																
3.1	Stone Entrance Features Allowance	1	LS	\$19,000.00	\$19,000	40	2021	100%	\$23,368	2057	100%	\$67,726				Two stone and mortar monuments are constructed at each entrance to the community. Each monument is about 9' x 3' x 2' wide with a wood community name sign attached. All stone and mortar appear to be in poor to fair condition with some deteriorated mortar, cracked or missing mortar, and missing stones. The monuments are nearing forty years of age and require restoration in a few years. With periodic maintenance performed under the maintenance budget, when the monuments receive restoration, they should have a very long service life.
3.2	Carved Wood Entrance Signs	2	EA	\$1,500.00	\$3,000	15	2021	100%	\$3,690	2036	100%	\$5,748				Painted, carved wood signs are installed on the stone monuments at the entrances to the community. The two square signs are seven feet by two feet high. Both signs are in fair condition. The signs are embedded into the wall, which helps protect the edges from moisture and may extend the life of the signs.
3.3	Street and Informational Signage	5	EA	\$155.00	\$775	20	2019	100%	\$898	2039	100%	\$1,623				Standard metal traffic, parking and access control signs, typically 12" by 18" and mounted on perforated metal posts, are located throughout the townhome community. A total of approximately five signs are installed, mainly around the Greentree Road townhomes. Posts and signs appear to be in good to fair condition, with damaged and out-of-plumb signs observed.

Reserve Fund Plan for
 BETHESDA PLACE COMMUNITY COUNCIL,
 INC.
 Bethesda, Maryland

COMPONENT DATA AND
 ASSET REPLACEMENT SCHEDULE

TABLE 1
 2014 Through 2033

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	DISCUSSION
Component No.	Component	Quantity	Unit of Measurement	Unit Cost	Total Asset Base	Typical Service or Cycle Life in Yrs	1st Cycle Year	Percentage of Replacement	Cost For 1st Cycle	2nd Cycle Year	Percentage of Replacement	Cost For 2nd Cycle	3rd Cycle Year	Percentage of Replacement	Cost For 3rd Cycle	
3.4	Light Poles & Fixtures	12	EA	\$2,600.00	\$31,200	35	2025	100%	\$43,188	2060	100%	\$121,525				Management advised that the community is responsible for maintenance and replacement of the street lights. Approximately 12 metal light poles, about 12' high, with traditional lantern fixtures provide street and area illumination. They appear to range from fair to good condition. The lighting was not observed after dark. No problems were reported with lighting. We understand that two new lights were recently installed.
3.5	Stone Retaining Wall	228	SF	\$60.00	\$13,680	50	2038	100%	\$27,809							A 38' x 6' stone retaining wall is constructed below the townhome on 6791 Surreywood Lane. The wall appears to be in good condition, with no deflection or missing mortar observed. These observations should be viewed in the context of capital reserve budget projections, and not as a structural analysis. Any questions regarding the safety or structural integrity of the walls should be referred to a professional engineer.
3.6	Mailbox Stations	4	EA	\$1,800.00	\$7,200	25	2034	100%	\$13,004							Four metal mailbox units have been installed. The units are pedestal mounted to concrete pads and contain twelve letter and one parcel sized boxes. We understand that the mailboxes were replaced circa 2009 and 2010. All of the mailboxes are in good condition.
3.7	Tree Trimming, Removal, & Replacement Allowance	1	LS	\$10,000.00	\$10,000	1	2014	100%	\$10,000	2015	100%	\$10,300	2016	100%	\$10,609	Due to the age of the property, the site has many mature trees. In later years, trees require trimming to prevent damage to adjacent structures and components. Also, occasionally trees must be removed due to damage, disease, or if they outsize their location. This line item addresses tree removal, trimming, or replacement periodically throughout the study period. Management established the budget.
3.8	Storm Water Drainage System Allowance	1	LS	\$10,000.00	\$10,000	7	2020	100%	\$11,941	2027	100%	\$14,685	2034	100%	\$18,061	Storm water drainage is provided by concrete yard drains, curb drop inlets, and underground structures, leading storm water offsite. One storm water detention pond is located behind the single-family homes on Derbyshire Lane and a second detention pond is located at the end of Greentree Road. The vegetation and debris should be kept clear from both of these ponds. We understand that responsibility for some or parts of the system may rest with local government. Though storm water drainage systems are a long life component and catastrophic failure is not anticipated, it is prudent for the community to plan for localized repairs and repairs to ancillary damage, even if a public entity has primary responsibility. This category may also be used to address localized erosion issues. Management requested the allowance contribution for the community.

CALENDAR OF EXPENDITURES TABLE 2 EXPLANATION

This table is a yearly plan of action of replacements and costs. A description of the columns in the table follows:

- Column 1 **Year** is the year of the projected replacement and expenditure.
- Column 2 **Component No.** itemizes the components and is consistent throughout the tables.
- Column 3 **Component** is a brief description of the component.
- Column 4 **Present Cost** is the cost for the cycle in today's dollars.
- Column 5 **Future Cost (Inflated)** is the cost for the cycle in future dollars.
- Column 6 **Total Annual Expenditures** gives the total expenditures by year.
- Column 7 **Action** is an area provided for the Board to make notations as to action taken on each component.

Reserve Fund Plan for
 BETHESDA PLACE COMMUNITY COUNCIL, INC.
 Bethesda, Maryland

CALENDAR OF EXPENDITURES
 TABLE 2
 2014 Through 2033

YEAR	COMPONENT NO.	COMPONENT	PRESENT COST 2014	FUTURE COST (INFLATED)	TOTAL ANNUAL EXPENDITURES	ACTION
1	2	3	4	5	6	7
2014					2014	
	1.5	Asphalt Footpath	\$2,520	\$2,520	TOTAL EXPENDITURES	
	2.1	Concrete Sidewalks	\$2,797	\$2,797		
	2.2	Concrete Curbs & Gutters	\$1,907	\$1,907		
	3.7	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$10,000		
					\$17,223	
2015					2015	
	3.7	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$10,300	TOTAL EXPENDITURES	
					\$10,300	
2016					2016	
	1.1	Asphalt Restoration Project - Phase 1	\$48,405	\$51,353	TOTAL EXPENDITURES	
	1.4	Asphalt Repair Allowance	\$6,500	\$6,896		
	3.7	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$10,609		
					\$68,858	
2017					2017	
	3.7	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$10,927	TOTAL EXPENDITURES	
					\$10,927	
2018					2018	
	2.1	Concrete Sidewalks	\$4,195	\$4,722	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	\$1,907	\$2,146		
	3.7	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$11,255		
					\$18,123	
2019					2019	
	3.3	Street and Informational Signage	\$775	\$898	TOTAL EXPENDITURES	
	3.7	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$11,593		
					\$12,491	
2020					2020	
	3.7	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$11,941	TOTAL EXPENDITURES	
	3.8	Storm Water Drainage System Allowance	\$10,000	\$11,941		
					\$23,881	
2021					2021	
	3.1	Stone Entrance Features Allowance	\$19,000	\$23,368	TOTAL EXPENDITURES	
	3.2	Carved Wood Entrance Signs	\$3,000	\$3,690		
	3.7	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$12,299		
					\$39,356	
2022					2022	
	1.2	Asphalt Restoration Project - Phase 2	\$29,263	\$37,069	TOTAL EXPENDITURES	
	1.3	Asphalt Seal Coat	\$3,878	\$4,913		
	1.4	Asphalt Repair Allowance	\$5,000	\$6,334		
	3.7	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$12,668		
					\$60,984	
2023					2023	
	2.1	Concrete Sidewalks	\$4,195	\$5,474	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	\$1,907	\$2,488		
	3.7	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$13,048		
					\$21,009	
2024					2024	
	1.5	Asphalt Footpath	\$2,520	\$3,387	TOTAL EXPENDITURES	
	3.7	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$13,439		
					\$16,826	
2025					2025	
	3.4	Light Poles & Fixtures	\$31,200	\$43,188	TOTAL EXPENDITURES	
	3.7	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$13,842		
					\$57,030	
2026					2026	
	3.7	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$14,258	TOTAL EXPENDITURES	

Reserve Fund Plan for
 BETHESDA PLACE COMMUNITY COUNCIL, INC.
 Bethesda, Maryland

CALENDAR OF EXPENDITURES
 TABLE 2
 2014 Through 2033

YEAR	COMPONENT NO.	COMPONENT	PRESENT COST 2014	FUTURE COST (INFLATED)	TOTAL ANNUAL EXPENDITURES	ACTION
1	2	3	4	5	6	7
					\$14,258	
2027					2027	
	3.7	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$14,685	TOTAL EXPENDITURES	
	3.8	Storm Water Drainage System Allowance	\$10,000	\$14,685		
					\$29,371	
2028					2028	
	1.3	Asphalt Seal Coat	\$6,574	\$9,943	TOTAL EXPENDITURES	
	1.4	Asphalt Repair Allowance	\$5,000	\$7,563		
	2.1	Concrete Sidewalks	\$4,195	\$6,346		
	2.2	Concrete Curbs & Gutters	\$1,907	\$2,884		
	3.7	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$15,126		
					\$41,861	
2029					2029	
	3.7	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$15,580	TOTAL EXPENDITURES	
					\$15,580	
2030					2030	
	3.7	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$16,047	TOTAL EXPENDITURES	
					\$16,047	
2031					2031	
	3.7	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$16,528	TOTAL EXPENDITURES	
					\$16,528	
2032					2032	
	3.7	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$17,024	TOTAL EXPENDITURES	
					\$17,024	
2033					2033	
	2.1	Concrete Sidewalks	\$4,195	\$7,356	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	\$1,907	\$3,343		
	3.7	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$17,535		
					\$28,235	

CURRENT FUNDING ANALYSIS CASH FLOW METHOD
TABLE 3.0 EXPLANATION
and, if applicable,
ALTERNATIVE FUNDING ANALYSIS CASH FLOW METHOD
TABLE 3.1, 3.2, 3,3 (etc.) EXPLANATION

Table 3.0 shows the financial picture over the twenty-year study period, using the current annual contribution and the reserve fund balance reported at the beginning of the study year. If the results of the study indicate a need to increase the annual contribution to maintain adequate balances throughout the study period, Table 3.1, and possibly, 3.2 will be provided for consideration. Alternatives might also be provided if a community is over-funded and desires to adjust the annual contribution downward.

Alternative funding may be achieved by increasing the annual contribution to a fixed yearly amount or by applying an annual escalation factor to increase contributions over time, or a combination of both methods. An inflation factor and interest income factor may be included in the calculations on this page.

A description of the columns in the table follows:

Column 1	Year
Column 2	Total Asset Base of all common capital assets included in the reserve fund with costs adjusted for inflation.
Column 3	Beginning Reserve Fund Balance is the reserve fund balance after all activity in the prior year is completed.
Column 4	Annual Contribution , on Table 3, is the amount contributed annually to the reserve fund as reported by the Board of Directors. On the Alternative Funding Analysis tables (3.1, 3.2, etc.), the annual contribution is projected to maintain positive balances throughout the study period.
Column 5	Interest Income , which is indicated in the heading of the table, is applied to the reserve fund balance and is accrued monthly throughout each year after the yearly expenditures are deducted. The interest income percentage may be varied to reflect actual experience of the community investments.
Column 6	Capital Expenditures are annual totals of expenditures for each year of the study period adjusted by the inflation percentage listed in the heading of the table.
Column 7	Ending Reserve Fund Balance is the result of the beginning reserve fund balance plus the annual contribution, plus interest income, less capital expenditures for the year.
Column 8	Balance to Asset Base Ratio , expressed as a percentage, is the ratio between the ending reserve fund balance and the total asset base for that year. The ratio is useful to the analysts in understanding general financial condition, but there is no standard ratio as each community's condition and complexity varies.

Reserve Fund Plan for
BETHESDA PLACE COMMUNITY
COUNCIL, INC.
Bethesda, Maryland

FUNDING ANALYSIS
HYBRID APPROACH
CASH FLOW METHOD
TABLE 3



Beginning Reserve Fund Balance: **104,475** Annual Contribution To Reserves: **3,782** Contribution Percentage Increase: **3.00%** Annual Inflation Factor: **3.00%** Annual Interest Income Factor: **2.00%**

In Dollars

YEAR	TOTAL ASSET BASE	BEGINNING RESERVE FUND BALANCE	ANNUAL CONTRIBUTION	INTEREST INCOME	CAPITAL EXPENDITURES	ENDING RESERVE FUND BALANCE
1	2	3	4	5	6	7
2014	429,305	104,475	24,407	2,188	17,224	113,846
2015	442,184	113,846	25,139	2,460	10,300	131,145
2016	455,449	131,145	25,894	2,181	68,858	90,362
2017	469,113	90,362	26,670	1,996	10,927	108,101
2018	483,186	108,101	27,471	2,284	18,123	119,733
2019	497,682	119,733	28,295	2,589	12,491	138,126
2020	512,612	138,126	29,143	2,846	23,882	146,234
2021	527,991	146,234	30,018	2,851	39,357	139,746
2022	543,830	139,746	30,918	2,495	60,984	112,175
2023	560,145	112,175	31,846	2,383	21,010	125,394
2024	576,949	125,394	32,801	2,706	16,826	144,075
2025	594,258	144,075	33,785	2,657	57,030	123,487
2026	612,086	123,487	34,799	2,717	14,258	146,744
2027	630,448	146,744	35,843	3,033	29,370	156,251
2028	649,362	156,251	36,918	3,101	41,862	154,408
2029	668,843	154,408	38,026	3,362	15,580	180,215
2030	688,908	180,215	39,166	3,890	16,047	207,225
2031	709,575	207,225	40,341	4,443	16,528	235,481
2032	730,862	235,481	41,552	5,021	17,024	265,030
2033	752,788	265,030	42,798	5,509	28,234	285,103

STUDY PERIOD TOTALS

655,831 60,712 535,915

FULLY FUNDED BALANCE GOAL

FUNDING ANALYSIS COMPONENT METHOD TABLE 4 EXPLANATION

Table 4 is a yearly list of annual contributions toward each component, which must be made to achieve 100% funding. The reserve fund balance is the balance at the beginning of the study year. The beginning reserve fund balance is applied, proportionately, to each component prior to calculating the yearly contribution for each component. Future costs (inflation) are factored into the replacement cycles. The annual contribution for each year is calculated in the bottom row of the study labeled **Annual Component Contribution Totals**. Interest and inflation are calculated at the same annual rates as the Cash Flow Method (Table 3).

- Column 1 **Component Number** is consistent throughout the tables.
- Column 2 **Component** is a brief description of the component.
- Columns 3 - 22 **Years** lists the annual contribution amount toward each component throughout the twenty-year study period, which is totaled at the bottom of the component table.

COMPONENT METHOD SUMMARY

The component method summary computes the beginning reserve fund balance, the annual component contribution, the annual expenditures, and interest income. It then provides the ending reserve fund balance for each year of the study.

Beginning Reserve Fund Balance:

In Dollars **104,475**

Component Number	COMPONENT	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
1 ASPHALT COMPONENTS																					
1.1	Asphalt Restoration Project - Phase 1	8,754	8,754	4,032	4,032	4,032	4,032	4,032	4,032	4,032	4,032	4,032	4,032	4,032	4,032	4,032	4,032	4,032	4,032	4,032	4,032
1.2	Asphalt Restoration Project - Phase 2	2,308	2,308	2,308	2,308	2,308	2,308	2,308	2,308	2,911	2,911	2,911	2,911	2,911	2,911	2,911	2,911	2,911	2,911	2,911	2,911
1.3	Asphalt Seal Coat	566	566	566	566	566	566	566	566	1,559	1,559	1,559	1,559	1,559	1,559	763	763	763	763	763	763
1.4	Asphalt Repair Allowance	1,507	1,507	993	993	993	993	993	993	1,185	1,185	1,185	1,185	1,185	1,185	1,840	1,840	1,840	1,840	1,840	1,840
1.5	Asphalt Footpath	986	306	306	306	306	306	306	306	306	306	411	411	411	411	411	411	411	411	411	411
2 CONCRETE COMPONENTS																					
2.1	Concrete Sidewalks	1,669	1,133	1,133	1,133	1,040	1,040	1,040	1,040	1,040	1,206	1,206	1,206	1,206	1,206	1,398	1,398	1,398	1,398	1,398	1,620
2.2	Concrete Curbs & Gutters	880	515	515	515	473	473	473	473	473	548	548	548	548	548	635	635	635	635	635	736
3 SITE FEATURES																					
3.1	Stone Entrance Features Allowance	1,475	1,475	1,475	1,475	1,475	1,475	1,475	1,284	1,284	1,284	1,284	1,284	1,284	1,284	1,284	1,284	1,284	1,284	1,284	1,284
3.2	Carved Wood Entrance Signs	272	272	272	272	272	272	272	328	328	328	328	328	328	328	328	328	328	328	328	328
3.3	Street and Informational Signage	73	73	73	73	73	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66
3.4	Light Poles & Fixtures	1,752	1,752	1,752	1,752	1,752	1,752	1,752	1,752	1,752	1,752	1,752	2,396	2,396	2,396	2,396	2,396	2,396	2,396	2,396	2,396
3.5	Stone Retaining Wall	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528
3.6	Mailbox Stations	425	425	425	425	425	425	425	425	425	425	425	425	425	425	425	425	425	425	425	425
3.7	Tree Trimming, Removal, & Replacement All	11,776	10,495	10,809	11,134	11,468	11,812	12,166	12,531	12,907	13,294	13,693	14,104	14,527	14,963	15,412	15,874	16,350	16,841	17,346	17,866
3.8	Storm Water Drainage System Allowance	1,633	1,633	1,633	1,633	1,633	1,633	1,953	1,953	1,953	1,953	1,953	1,953	1,953	2,402	2,402	2,402	2,402	2,402	2,402	2,402
ANNUAL COMPONENT CONTRIBUTION TOTALS		34,604	31,742	26,820	27,145	27,344	27,681	28,355	28,585	30,749	31,377	31,881	32,936	33,359	34,244	34,831	35,293	35,769	36,260	36,765	37,608

COMPONENT METHOD SUMMARY	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
BEGINNING RESERVE FUND BALANCE	104,475	124,341	148,639	109,893	128,625	140,740	159,073	167,066	159,977	133,307	146,706	165,070	144,667	167,051	175,671	172,565	196,146	220,217	244,789	269,872
PLUS ANNUAL COMPONENT CONTRIBUTION	34,604	31,742	26,820	27,145	27,344	27,681	28,355	28,585	30,749	31,377	31,881	32,936	33,359	34,244	34,831	35,293	35,769	36,260	36,765	37,608
CAPITAL EXPENDITURES	17,224	10,300	68,858	10,927	18,123	12,491	23,882	39,357	60,984	21,010	16,826	57,030	14,258	29,370	41,862	15,580	16,047	16,528	17,024	28,234
SUBTOTAL	121,855	145,783	106,601	126,111	137,846	155,930	163,546	156,294	129,742	143,674	161,761	140,976	163,768	171,925	168,640	192,278	215,868	239,949	264,530	279,246
PLUS INTEREST INCOME @ 2.00%	2,486	2,856	3,293	2,514	2,894	3,142	3,520	3,684	3,564	3,033	3,309	3,691	3,284	3,745	3,925	3,868	4,349	4,840	5,342	5,857
FULLY FUNDED RESERVE FUND BALANCE	124,341	148,639	109,893	128,625	140,740	159,073	167,066	159,977	133,307	146,706	165,070	144,667	167,051	175,671	172,565	196,146	220,217	244,789	269,872	285,103

PERCENT FUNDED FOR CURRENT CYCLE **85%**

TOTAL EXPENDITURES **535,915**

TOTAL CONTRIBUTIONS **643,348**

STUDY PERIOD TOTAL INTEREST **73,195**

AVERAGE ANNUAL CONTRIBUTION **32,167**

FULLY FUNDED BALANCE GOAL

PHOTOGRAPHS
WITH
DESCRIPTIVE
NARRATIVES



MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.



PHOTO #1
The parking bays of the Surreywood Lane side of the community range from poor to fair condition. A large amount of deflected pavement was observed.



PHOTO #2
The front driveline and parking bays of Green Tree Road are also in poor to fair condition. The Phase 1 streets and parking bays have been scheduled for near-term full width mill and asphalt replacement.



PHOTO #3
The drivelines and parking bays at the end of Green Tree Road received restoration circa 2003 and are in overall good condition. All asphalt drivelines and parking bays throughout the community received recent crack filling and seal coating.



PHOTO #4
The asphalt footpath is in fair condition. A significant amount of longitudinal and transverse cracking was observed.



PHOTO #5
This corner section of curb and gutter has settled. This settlement creates a potential tripping hazard at the sidewalk, which should be repaired.



PHOTO #6
Both entrance monuments are missing stones and require tuckpointing, as the mortar on top of the walls has deteriorated allowing water to infiltrate through the walls. This should be repaired under Operations.



PHOTO #7
The street lights range from fair to newer condition, as some lights have been recently installed on the Green Tree Road section of the community.



PHOTO #8
The stone retaining wall constructed near 6791 Surrywood Lane is in good condition. No major deficiencies were observed.

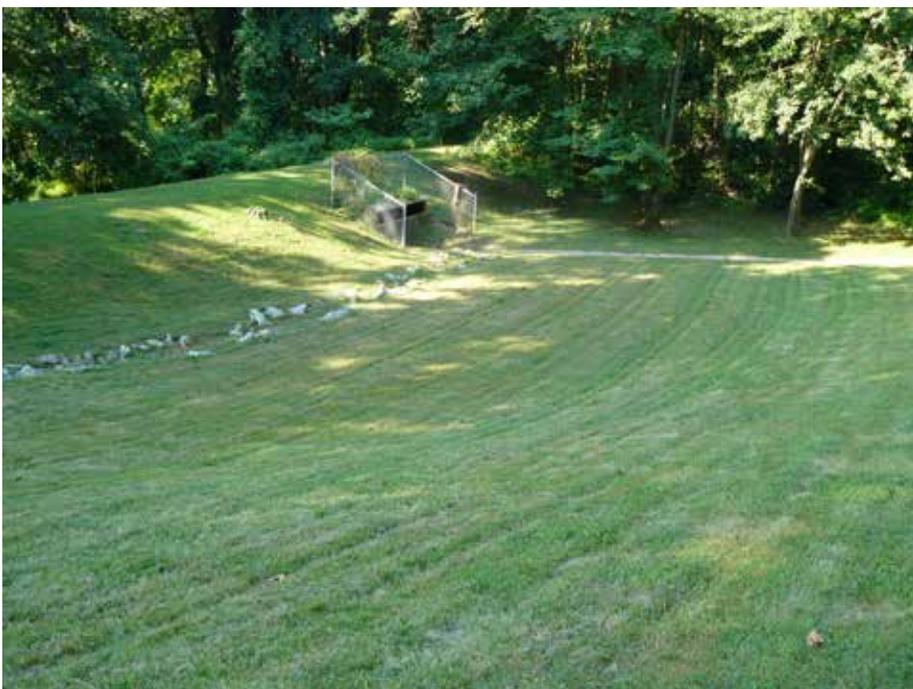


PHOTO #9
Both of the storm water detention ponds have been mowed and most vegetation has been removed. This maintenance practice should continue.