

# MASON & MASON CAPITAL RESERVE ANALYSTS, INC.



# Condition Assessment Reserve Fund Plan Update 2012

for

#### Potomac Place

Mclean, Virginia



Prepared for: The Board of Directors & Reston Management, Inc.



# MASON & MASON CAPITAL RESERVE ANALYSTS, INC.



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January 20, 2012

Ms. Rebecca Manderly, CMCA, AMS, General Manager Potomac Place C. A. and Reston Management, Inc. 28875 Gunston Boulevard Mclean, Virginia 22131

RE: CONDITION ASSESSMENT AND RESERVE FUND PLAN UPDATE 2012

**Potomac Place Community Association** 

Mclean, Virginia Project No. 9110

Dear Ms. Manderly:

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

As outlined in our proposal, the report is being submitted to you and the Board of Directors for review and comment. A review of the Summary of Key Issues iii, and Sections 1 and 2 will provide you with our findings and financial analyses. We will be happy to meet with the Board to help them fully understand the issues. If no changes are necessary, please consider this version the final report. If changes are requested, Mason & Mason will make the revisions and re-issue the report. We encourage the Board to complete this process expeditiously and will support the effort.

We genuinely appreciate the opportunity to again work with you and the Association.

Sincerely,

Mason & Mason Capital Reserve Analysts, Inc.

James G. Mason, R. S.

Principal

N. K. 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 Potomac Place's Reserve Fund Plan Update. 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 Capital Reserve fund is approximately fully funded for the current cycle. This is a significant improvement from past years. Our goal is to remain fully funded by the end of the 20-year period (2031).
- The Neighborhood Reserve fund is approximately fully funded for the current cycle. This is also a significant improvement from past years. Our goal is to remain fully funded by the end of the 20-year period (2031).

In order to achieve this goal, the Capital Reserves should:

- Set the annual contribution in 2012 at \$78,665, and plan on annual adjustments of 3.0% to reflect inflation thereafter.
- This represents \$7.01 per residential unit, per month (based on 935) combined SFHs and Townhomes).

In order to achieve this goal, the Neighborhood Reserves should:

- Set the annual contribution in 2012 at \$96,001, and plan on annual adjustments of 3.0% to reflect inflation thereafter.
- This represents \$11.41 per residential unit, per month (based on 701) Townhomes).

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: Potomac Place Community Association is comprised of 234 single-family homes (SFH) and 701 townhomes (TH) located on Gunston Boulevard in Mclean, Virginia. The community was constructed between 1994 and 1996. The Association is organized into two elements; Capital Reserves for the Community Center, pool facility, and general site assets, and Neighborhood Reserves for the townhome assets (four sections identified as Section 1, 2, 3, and 4). The roadways serving the SFH sections are VDOT and not the responsibility of the Association. The roadways serving the TH sections are private and therefore are funded by the Neighborhoods. The neighborhood roadway layout includes concrete sidewalks, curbs and gutters, driveway aprons, and 105 parking bays providing 951 spaces.

We are providing the Condition Assessment and Reserve Fund Plan Update based on Proposal Acceptance Agreement No. 9110 dated September 15, 2011. 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 Association. Ultimately, the establishment, management, and expenditure of reserves are within the discretion of the Association 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 Potomac Place and we therefore do not have any conflicts of interest that would bias this report. Information provided by Management and the Board 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.

Mason & Mason provided a Level I Condition Assessment and Reserve Fund Plan for Potomac Place in 1998, 2002, and 2007. This report is a Level II update of the previous reports and includes a new condition assessment. All common components were visually observed. Measurements and quantities were generally accepted from the previous report except where changes have occurred. The update report is a stand-alone document and reference to the previous report should not be necessary.

James G. Mason, R. S., and N. K. Mason, R. S. conducted an interview with Ms. Rebecca Manderly, General Manager on January 10, 2012. The field evaluation for this Level II report was conducted on January 10, 11, 12, and 14, 2012. The weather during the period was generally overcast with light snow and rain, and the temperature ranged from approximately 35 to 45 degrees F. The pavements, walkways, and grounds were generally wet.

1.2 Principal Findings: The common assets appear to be in overall improving good condition. Potomac Place is now reaching its twenty to twenty-five year benchmark in terms of replacement of major systems. The Boards and Management have been proactive in caring for their assets. In 2007 several major components such as the Community Center retaining wall, tennis court, and parking lot had developed problems. An evaluation by a professional engineer was recommended and conducted to identify the issues with the wall and tennis court. Those deficiencies have now been corrected, although it appears, they will continue to be a maintenance issue, and require limited repairs on about a ten-year cycle.

In 1998 Mason & Mason surveyed (evaluated) and quantified all pavements, footpaths, sidewalks, curbs and gutters, and driveway aprons. The 2007 survey resulted in a significant number of streets in Sections 1, 2, and 4 receiving localized repairs or overlay repairs. The Community Center parking lot and all of Section 3 were overlay restored that year as well. In 2011 six streets in Sections 2 and 4 were overlay restored. We have identified four more streets in Sections 1, 2, and 4 that should be overlay restored this year. Repairs and community-wide seal coating have also been scheduled for this year. Management has indicated that annual inspections and needed overlay restoration will continue until all streets have been completed. We have scheduled the next block of remaining streets for 2015, but this could change based on weather and other factors. We have updated the Asphalt Pavement Report including street names and sections with overlay and repair information, which can be used by Management for future pavement planning.

Other Capital Reserve components scheduled for repair this year include some sections of asphalt footpaths totaling approximately 13%, which is significantly lower since so much has been repaired in the interim. An evaluation of the retention pond by an environmental engineer to identify specific issues and liabilities associated with the pond and its long-term best maintenance practices was originally scheduled for 2008, but it has now been deferred to 2012.

Concrete repair/replacement cycles have been reduced to two-year intervals to mitigate liability issues with tripping hazards beginning in 2012. Our survey indicates a deficiency rate of only 1% currently.

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 timeline 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 track the annual inflation rate among our clients based on their reported costs for typical services. The average rate of inflation since the 2008 recession has been 1.46% according to the U.S. Labor Department and is similar in our experience with clients. However, currently we are seeing somewhat higher rates and are anticipating that general price inflation will continue at elevated levels near to mid-term. As such, we are using a 3% rate of inflation in our calculations. Interest income has increased similarly since 2008, and many smaller Associations and Condominiums are earning up to 1.85% on savings accounts and as much as 3.37% on 5-year certificates of deposit. Accordingly, we are assuming 2.5% interest income in our calculations. However, unlike reserves, interest income is taxable, which may reduce the net gain. We anticipate increasingly volatile economic conditions near to mid-term. 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.

#### CAPITAL RESERVES

- 2.1 Calculation Basics: Capital Reserves are on a calendar fiscal year. Management reported that the reserve fund balance, including cash and securities, as of December 31, 2011, was \$837,829. We have used a 2.00% annual interest income factor and a 3.00% inflation factor in our model. The total expenditures for the twenty-year study period for both the Cash Flow Method and Component Method are projected to be \$2,054,785.
- 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 at \$78,665 in 2012 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 \$2,113,757, and the total interest income is projected to be \$439,490. The fully funded balance in 2031 is \$1,336,291.
- 2.3 Funding Analysis, Component Method (Table 4): This method of funding would require variable annual contributions, averaging \$105,046 over the twenty-year period. The total for all annual contributions would be \$2,100,917, and the total interest income is projected to be \$452,330. The fully funded balance in 2031 is \$1,336,291. 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.

#### NEIGHBORHOOD RESERVES

- 2.4 Calculation Basics: Neighborhood Reserves are on a calendar fiscal year. Management reported that the reserve fund balance, including cash and securities, as of December 31, 2011, was \$411,692. We have used a 2.00% annual interest income factor and a 3.00% inflation factor in our model. The total expenditures for the twenty-year study period for both the Cash Flow Method and Component Method are projected to be \$2,752,899.
- 2.5 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 at \$96,001 in 2012 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 \$2,579,591, and the total interest income is projected to be \$474,336. The fully funded balance in 2031 is \$712,720.
- 2.6 Funding Analysis, Component Method (Table 4): This method of funding would require variable annual contributions, averaging \$123,460 over the twenty-year period. The total for all annual contributions would be \$2,469,190, and the total interest income is projected to be \$584,737. The fully funded balance in 2031 is \$712,720. 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 ensuring 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 adjustments 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 upward-adjusting 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) has 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 PDF attachments.

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 reroofing 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 single-family, townhome, 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 edgemill 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. 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 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.

- **6.4 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 edgemill and overlay. Generally, this type of repair should not be required for approximately five years after an edgemill and overlay project.
- **6.5 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.
- 6.6 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 recasting. Skim coating is not an effective repair for scaled or settled concrete surfaces and, over time, will usually worsen the problem.
- **6.7 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.
- **6.8 Concrete Pool Deck**: Cast-in-place concrete, slab-on-grade pool deck sections, which have large cracks, should be removed and replaced periodically to prevent water infiltration behind the pool structure. Minor cracks can be routed and sealed to extend the service life of the deck. In some instances, a breathable cementitious coating can be applied to improve the surface appearance and extend the surface life.
- **6.9 Metal Handrailings:** Metal handrailings should be periodically straightened, loose connections repaired, cleaned of rust, primed, and painted to maintain appearance and extend the useful service life. Bases should be periodically cleaned and sealed to prevent moisture infiltration, which will cause damage to the concrete in freeze/thaw cycles. Welding new bases to replace deteriorated bases is a viable alternative to replacing handrailings.

- 6.10 Tot Lot Equipment and Outdoor Furniture: Little maintenance is necessary on the newer style, pre-finished or painted metal play modules other than periodic safety inspections and repair, re-finishing, or replacement of any worn or damaged components. Bare wood components, both non-treated and pressure-treated, generally will achieve a greater useful service life and improved appearance if preventative maintenance is performed. Periodic pressure washing and sealing with wood preservative is recommended on all wood components. Rough edges and splinters should be sanded prior to sealing. Damaged or deteriorated wood components should be replaced as necessary. Generally, securing or repairing wood components with screws will provide a better fastening method than nails. Tot lot equipment should be inspected frequently for loose components, rough edges, splinters, and safety hazards. Tot lot borders should be leveled periodically, and protruding border anchors should be made flush with the timber surface.
- 6.11 Tennis Court Restoration: Court surface overlays are usually required when settlement of the sub-base causes cracks to appear at the surface. Direct overlays usually allow any cracks to migrate (reflective cracking) to the new surface. A technique to eliminate this problem is to separate the old surface from the new surface with a layer of fine marble dust. This allows the two surfaces to move independently and results in a more stable top surface. Since net tension is the most common cause of court damage, homeowners should be advised that tension on the nets should be released when not in use, and nets should not be over-tensioned when in use. Net post footings can be repaired or replaced without overlaying the court. In this region, tennis courts usually give about fifteen to twenty years of service before a restoration is necessary. Some courts fail much sooner and some last much longer depending upon initial construction and site preparation. Cut and fill sites are much more prone to settlement issues. It is prudent to plan for overlay now because of the large expense involved if required. Good maintenance practices, including frequent sweeping, periodic color coating of the surface, and proper tensioning of the net cable can extend the service life of tennis courts.
- **6.12 Tennis Court Color Coat**: Color coating extends the life of the surface if cracking and other surface problems are not present. An average five-year life for color coating is scheduled, except within a year or two of scheduled surface overlay. Any cracking around net post footings should be sealed to prevent moisture infiltration.
- **6.13 Chain Link Fencing:** Very little maintenance is necessary for chain link fencing and gates. Periodic removal of encroaching vegetation should be performed to prevent damage to components. Damaged components should be repaired or replaced. Rusted fencing components may be painted to improve appearance.

- 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 rerouting 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.
- 6.15 Composite Shingle Roofs: Roofs and attic spaces should be inspected annually for damage and leaks. During the attic inspection, check to make sure that mechanical ventilation systems, such as bathroom exhaust fans and dryer ducts, are routed through the roof and not discharging into the attic space. Loose or missing shingles should be replaced on a regular basis. Signs of deflected roof sheathing or discoloration of the sheathing are indicative of moisture problems and should be investigated. It is important to ensure that proper ventilation is occurring at the soffit vents and that insulation is not obstructing the airflow. If attic ventilation appears to be inadequate, the installation of ridge vents and/or through-the-roof mechanical vents is usually a cost-effective way of extending the useful service life of the sheathing. Roof penetrations, such as plumbing vents, are a major source of leaks. During the inspection, these areas should be checked carefully for signs of leakage or rotten sheathing. Gutters and downspouts should be inspected annually. Loose, damaged, or leaking sections should be secured, repaired, or replaced. All gutters should be kept clean of leaf material and debris. Clogged downspouts should be cleared. In areas where gutters collect fallen leaves, gutters should have screens installed. Downspouts should be directed away from buildings. Erosion can be minimized by the use of properly located splash blocks or plastic flexible tubing. In all cases, water should be directed away from building foundations. Splash blocks must be properly placed, and flexible plastic extensions require diligent maintenance.
- **6.16 Bare Wood Components:** Bare wood components, both non-treated and pressure-treated, generally will achieve a greater useful service life and improved appearance if preventative maintenance is performed. Periodic pressure washing and sealing with wood preservative is recommended on all wood components. Rough edges and splinters should be sanded prior to sealing. Damaged or deteriorated wood components should be replaced as necessary. Generally, securing or repairing wood components with screws will provide a better fastening method than nails.

- **6.17 Pool Structure:** The swimming pools are in-ground, cast-in-place concrete structures. Most outdoor pools of this type, in this area, require a major renovation between twenty and forty years of age. The service life is dependent upon initial construction and site preparation. Pools built on a cut and fill site are more prone to have settlement issues. It is prudent to plan for structural renovation now because of the large expense involved if required. Core samples should be taken periodically, as the pool ages, to determine the condition of the gunnite and concrete. Water infiltration will weaken the concrete and early detection can prevent higher repair costs.
- **6.18 Pool White Coat**: Pool white coating seals the pool surface and helps prevent water infiltration into the structure of the pool. White coat generally has a service life of 7 to 10 years. Prior to white coating, the old surface must be cleaned and sandblasted or acidized to prepare the surface to accept the new white coat. Surfaces adjacent to all fittings, lap lane tiles, waterline tiles, and lights must be prepared by chipping the surface so that the new plaster feathers in around the edges. Any damaged tiles or coping or loose or hollow plaster in the pool shell should be removed and repaired prior to white coating. Sometimes a bond coat will be applied to increase adhesion. White coating should be done on a dry day when temperatures will remain above freezing. The pool should be refilled immediately, the filter system started, and the surface brushed frequently for several days to prevent residue buildup, which creates a rough surface. Eggshell cracking is part of the curing process of white coat and is not indicative of problems. Pool covers help extend the life of the white coat by preventing seasonal damage and discoloration, which may require acid treatments to maintain appearance.
- **6.19 Pool Coping:** The coping around the pool perimeter is standard commercial bullnose cast stone, bedded and grouted to the pool structure. In order to extend the useful life of the pool structure and adjacent pool deck, it is important to keep the coping sections watertight. This will prevent water from infiltrating beneath the pool structure, which, if not controlled may cause damage during freeze/thaw cycles. Sealant should be applied between the pool coping and the pool deck. Deteriorated or separated sealant should be removed completely before new sealant is applied. Any loose, cracked, or "hollow" copings should be re-bedded or replaced annually as part of the long-term preventative maintenance required for pools. Deteriorated or cracked mortar between coping tiles or below the coping tiles at the pool structure should be diligently repaired.

6.20 Brick Component Tuckpointing & Repair: Brick components should be inspected periodically for step cracks in the mortar and shear cracks through the brick and mortar, indicating settlement problems. Signs of efflorescence on the brick face and mortar or spalling brick faces indicate water infiltration and should be investigated. Water infiltration problems are usually initiated at the top of an improperly sealed coping. Eliminating the infiltration of water into the structure from the coping can be accomplished by various methods, depending on the brick detail. Installation of a metal coping is sometimes a cost-effective method of solving these problems and extending the life of the component. Sealing of brick surfaces with breathable coatings will also extend the useful service life of the brick. All vegetation, such as vines or tree limbs should be kept clear of the brick to prevent damage. As brick components age, depending upon the initial quality of the mortar and the longterm environment of the wall, mortar joints may deteriorate. This condition can be corrected by tuckpointing. Applying soft sealants to the deteriorated joints or to cover up mortar joint cracks is not recommended. Deteriorated or cracked mortar joints should be repaired by cutting damaged material 34-inch deep with a diamond blade masonry saw. The void should then be filled with new mortar and the joints struck to match the original work.

#### 7. ASPHALT PAVEMENT REPORT

Section & Street (Yr of Overlay "O" or Repairs "R")	Total SY Asphalt Pavement	SY Full- Depth Repair	Linear Footage Cracks	Parking Spaces	Parking Bays
Community Center (2007 0)	2,500	16	100	80	10
Section 1 Key Court (2007 R) Ball Drive (2007 R) Flank Street (2007 R) Random Court (2007 R) Subtotal	4,700 4,300 2,800 1,900 <b>13,700</b>	0 4 N/A 50 <b>50</b>	500 1,000 N/A 800 <b>800</b>	41 34 80 51 <b>206</b>	5 3 7 4 <b>19</b>
Section 2 Redux Circle (2011 0) Killman Drive (2007 R) Field Lane (2007 R) Boiling Lane (2007 R) Master Court (2007 R) Stone Way (2007 R) Aspen Court (2011 0) Folly Court (2011 0) Subtotal	2,900 5,700 2,600 1,500 2,400 3,200 4,300 1,500 <b>24,100</b>	0 N/A 44 12 0 0 0 0 56	0 N/A 2,000 500 1,000 1,000 0 0 4,500	19 54 16 23 23 71 103 35 <b>344</b>	3 7 3 2 3 7 9 4 38
Section 3 Dream Sickle Court (2007 0) Houton Drive (2007 0) Smith Road (2007 0) Grinding Court (2007 0) Sport Court (2007 0) Making Lane (2007 0) Landing Court (2007 0) Green Court (2007 0) Sage Lane (2007 0) Subtotal	1,360 5,000 1,900 1,500 1,400 1,700 1,800 2,100 1,400 18,160	0 0 0 0 0 0	0 0 0 60 0 20 20 0 0	5 44 33 33 4 26 41 37 18	1 6 2 4 1 3 5 4 2
Section 4 Reeger Drive (2007 R) Kathy Court (2007 R) Amy Court (2007 R) Hunter Drive (2011 0) Maximus Court (2011 0) Key Landing (2011 0) Subtotal	2,500 1,300 1,300 6,800 1,800 800 14,500	16 N/A N/A 0 0 0 16	500 N/A N/A 0 0 0 500	9 7 11 72 56 5 <b>160</b>	1 2 2 9 5 1 <b>20</b>
TOTALS N/A Damage Significant, Mill &	72,960 Replace Res	206 store in 201	7,500		

### COMPONENT DATA AND ASSET REPLACEMENT SCHEDULE TABLE 1 EXPLANATION

This table lists the common assets included in the reserve fund plan and provides details of the replacement schedules. A narrative discussion is provided adjacent to each component. Photo references and maintenance protocol reference numbers are also provided. An explanation of each column in the table follows:

Column 1	Component No. is consistent throughout all tables.
Column 2	Component is a brief description of the component.
Column 3	Quantity of the component studied, which may be an exact number, a rough estimate, or simply a (1) if the expenditure forecast is a lump sum allowance for replacement of an unquantified component.
Column 4	Unit of Measurement used to quantify the component:  SY = Square Yards SF = Square Feet LF = Linear Feet EA = Each LS = Lump Sum PR = Pair CY = Cubic Yards
Column 5	Unit Cost used to calculate the required expenditure. This unit cost includes removal of existing components and installation of new components, including materials, labor, and overhead and profit for the contractor.
Column 6	<b>Total Asset Base</b> is the total value of common assets included in the study in current dollars in addition to capital assets, this figure includes one cycle of maintenance liability.
Column <b>7</b>	Typical Service Life (Yrs) or Cycle is the typical life expectancy of similar components in average conditions or the length of years between replacement cycles, and does not necessarily reflect the conditions observed during the field evaluation. This number is furnished for reference and is not necessarily computed in the system.
Column 8	1st Cycle Year is the scheduled year of the first projected replacement or repair.
Column 9	Percentage of Replacement is the percentage of component value to be replaced in the first replacement cycle.
Column 10	Cost for 1 <sup>st</sup> Cycle is the future cost (with inflation) of the replacement. It is the product of Column 6 times Column 9 in future dollars.
Column 11	2 <sup>nd</sup> Cycle Year is the scheduled year of the second projected replacement or repair. If a second cycle is not listed, it is because the first cycle is beyond the end of the study.
Column 12	<b>Percentage of Replacement</b> is the percentage of component value to be replaced in the second replacement cycle. This can vary from the percentage of the first cycle for various reasons, such as the increased age of a component may require a larger amount of repair.
	Cycles, Percentage, and Cost repeat as itemized above. Although not shown on the tables, the cycles continue throughout the study period and beyond.
Column 18	<b>Discussion</b> is the description and observed condition of the component and the methodology employed in the decision-making process. Includes the photo reference, <b>(Photo #1, #2, etc.)</b> and Maintenance Protocol reference numbers <b>(7.1, 7.2 etc.)</b> if applicable.

#### COMPONENT DATA AND ASSET REPLACEMENT SCHEDULE **TABLE 1** 2012 Through 2031



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1 ASPHALT COMPONENT	S														
Asphalt Restoration 1.1 Project, Community Center		00 SY	\$12.50	\$31,250	18	2025	100%	\$45,892	2043	100%	\$78,128				The Community Center parking lot was restored in 2007 and, except for one area of damage, appears to be in like-new condition. The thickness of the pavement could not be visually determined. Restoration includes curb to curb full 2 " milling and overlay replacement with 2" new compacted asphalt. Costs are based on a recent conversation with the Association's paving company regarding 2012 projected pricing. Core sampling should be used to determine the depth and condition of the subbase and pavement prior to restoration. Costs include re-striping, but not replacement of any inadequate sub-base. A full service life is dependent on preventative maintenance being performed as suggested in the Preventive Maintenance section of the report and scheduled in Items 1.2 and 1.3 below. See the Asphalt Pavement Report, Section 7, for additional details.
1.2 Asphalt Seal Coat, Community Center	2,50	0 SY	\$0.86	\$2,150	6	2012	100%	\$2,150	2018	100%	\$2,567	2031	100%	\$3,770	The pavement has, appropriately, not been seal coated since restoration. Seal coating will improve curb appeal after repairs are performed. We have scheduled seal coating projects every six years, except in the year of the pavement restoration project. Seal coating projects include striping and curb painting. This will be part of the community-wide seal coating project for uniformity and project management.
Asphalt Full-Depth															Some deflected pavement, indicative of sub-base damage, is present at the accessible parking places. Minimal random longitudinal and transverse cracking is also
1.3 Repair & Crack Filling Allowance	1	LS	\$10,000.00	\$10,000	6	2012	10%	\$1,000	2018	50%	\$5,970	2025	100%	\$14,685	present. Repairs (3" depth mill and replace) are essential in order to achieve the projected service life of the new overlay. Mill repairs and crack filling are scheduled progressively 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.
1.4 Asphalt Footpaths	3,44	11 SY	\$20.00	\$68,820	6	2012	13%	\$8,947	2018	27%	\$22,187	2024	30%	\$29,436	Asphalt footpaths generally 4' or 6' in width provide access between sections of the Community. One section of 8' in width is constructed adjacent to Gunston Boulevard. The footpaths range from new to poor. We observed tree root damage (including to newer pavement) and some uneven surfaces and minor subsidence of edges at many locations. Of concern are the very wide transverse shrinkage cracks that have occurred at many locations. Because of their width, a crack filling program should be undertaken to mitigate the trip hazard caused by these cracks. Much of the previously scheduled work was accomplished since the last site evaluation and the percentage of poor condition asphalt is much lower. We have scheduled sectional replacements and localized repairs near-term at 13% of the total square yardage. Of concern are areas where standing water may create a hazard in icy conditions, namely adjacent to the Section 4 tennis court and near a storm water drain near the adjacent condominiums, which should be corrected.
2 CONCRETE COMPONE	NTS														
2.1 Concrete Sidewalk & Steps	s 3,35	64 SF	\$6.60	\$22,136	2	2014	1%	\$235	2016	1%	\$249	2018	1%	\$264	Concrete sidewalks throughout the Community are generally 4' wide with wider sections constructed at accessible ramps. The thickness of the concrete could not be visually determined. Their condition is generally continuing good with a few settled sections causing tripping hazards observed, which are scheduled for near-term replacement. Bi-annual repairs are scheduled to address tripping hazards in a timely manner. Full replacement at one time is not appropriate or anticipated. Concrete repairs are scheduled to coincide with other concrete components to promote cost efficiencies.
2.2 Concrete Curbs & Gutters	1,40	00 LF	\$31.00	\$43,400	2	2014	1%	\$460	2016	1%	\$488	2018	1%	\$518	The drivelanes and parking bays are lined with standard-profile, cast-in-place, concrete curbs. The curbs are generally in continuing good condition with only a couple of damaged curbs observed. As curbs age, cracks, vehicle impact damage, and settlement should be anticipated. Bi-annual repairs are scheduled as full replacement at one time is not appropriate or anticipated. Concrete are scheduled to coincide with other concrete components to promote cost efficiencies.
2.3 Concrete Pool Dec	k 10,1:	39 SF	\$11.50	\$116,599	10	2016	10%	\$13,123	2026	20%	\$35,273	2036	10%	\$23,702	The pool deck is cast-in-place concrete on grade and is generally in continuing good condition. A very few minor cracks in the deck were observed, but no major settlement. It is a cut and fill site, so some settlement in the future should be anticipated. Any additional cracks should be routed and sealed to prevent water infiltration into the deck and monitored for movement. Cyclic repairs are scheduled as full replacement of the entire deck at one time is not appropriate or anticipated. Concrete repairs are scheduled to coincide with other concrete components to promote cost efficiencies.
3 SITE FEATURES															
3.1 Community Entrance Sign	1	EA	\$13,500.00	\$13,500	20	2030	100%	\$22,983	2050	100%	\$41,510				A new brick monument wall with square bollards and composite caps was constructed in 2010 at the corner of the Community entrance below the pool area. Carriage-style light fixtures are installed at the top of each of the two bollards and an LED message board is mounted on the wall. a brick planter wall is constructed at the front. It appears to be in like-new condition and reportedly functions well.
3.2 Flag Pole	1	EA	\$4,000.00	\$4,000	30	2024	100%	\$5,703	2054	100%	\$13,843				An approximately 25' high aluminum flagpole is installed at the front of the Community Center. It appears to be in continuing good condition.
3.3 Wood Timber Retaining Walls	1,08	32 SF	\$36.00	\$38,952	20	2014	100%	\$41,324	2034	100%	\$74,636				Pressure-treated wood retaining walls are constructed throughout the Community at grade differentials in three locations and at the Community Center tennis court. They range in condition from continuing good to fair. We observed beginning deflection of the tennis court wall. This should not be problematic for many years, but should be monitored for movement.
3.4 Modular Block Retaining Wall	296	S SF	\$40.00	\$11,840	40	2037	100%	\$24,790							One modular block retaining wall is constructed adjacent to the footpath behind the Boiling Lane townhomes. It is in continuing good condition with no deflection or deterioration observed. Modular block retaining walls may have a very long service life if vegetation is properly controlled to prevent root damage. The walls may be rebuilt when necessary, new geotextile fabric installed, and the undamaged blocks re-used.

#### COMPONENT DATA AND ASSET REPLACEMENT SCHEDULE TABLE 1 2012 Through 2031



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#### COMPONENT DATA AND ASSET REPLACEMENT SCHEDULE **TABLE 1** 2012 Through 2031



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	Tree & Major															Management requested that this budget be included for periodic management of large scale landscaping. It has been significantly increased to address anticipated
3.17	Landscaping Allowance	1	LS	\$34,000.00	\$34,000	5	2012	100%	\$34,000	2017	50%	\$19,708	2022	100%	\$45,693	higher costs as the trees become older and more problematic.
																The live Johnson Brigate Comptony Joseph of Amy Court in Section 4 is conveyeded by split vail fending which cancers to be in continuing good condition. An
3.18	Cemetery Assets	1	LS	\$2,900.00	\$2,900	15	2020	100%	\$3,674	2035	100%	\$5,723				The June Johnson Private Cemetery, located at Amy Court in Section 4, is surrounded by split rail fencing, which appears to be in continuing good condition. An engraved metal plaque is attached to the right post and is mounted on a plywood backing.
3.19	Solar Lighting System	1	LS	\$27,600.00	\$27,600	15	2022	100%	\$37,092	2037	100%	\$57,788				The Making Lane tot lot is illuminated by a solar-powered system of several poles with fluorescent tube fixtures. This system was installed in approximately 2007. It appears to be in good condition and is reportedly functioning well. The cost is based on the actual installation plus inflation.
4 Co.	nmunity CENTER ARC	UITECTU	DAL EE	ATUDES												
4 COI	illiunity CENTER ARC	HITECTUR	XAL FE	ATURES												
																The approximate 9/12 pitched gable roofs have asphalt shingle roof coverings. Ventilation is achieved through soffit vents, ridge vents, and gable vents. We observed no deteriorated shingles or deflection of the roof sheathing. Some areas have received repairs with new shingles. Pre-finished aluminum gutters and downspouts are
4.1	Re-Roofing Project	4,500	SF	\$4.30	\$19,350	20	2016	100%	\$21,779	2036	100%	\$39,335				installed at all proper roof terminations. Downspouts appear to be properly directed away from building foundations. All components appear to be in continuing good condition and, subsequently, we have increased the service life. Re-roofing projects include replacement of shingles, deteriorated sheathing, and gutters and
																downspouts.
																Vinyl siding provides the primary building envelope, which appears to be in continuing good condition. Manufacturers represent that this material should provide a 35-
4.2	Vinyl Siding	6,000	SF	\$6.50	\$39,000	30	2024	100%	\$55,605	2054	100%	\$134,967				year service life, but our observations indicate that this is optimistic. Our experience is that the material may become brittle and fastener tabs may break, releasing the siding in high winds. Little maintenance, other than occasional cleaning, should be necessary throughout the service life. Most trim is metal clad and is included in
																the restoration.
4.3	Windows	600	SF	\$40.00	\$24,000	30	2024	100%	\$34,218	2054	100%	\$83,057				The windows of the Community Center are double-hung, aluminum-frame, and appear to be in continuing good condition. No window flashing leaks were reported or
																observed.
4.4	Wood Deck	168	SF	\$35.00	\$5,880	30	2024	100%	\$8,383	2039	50%	\$6,531				The deck at the rear of the Community Center is constructed of pressure-treated wood structure and composite wood decking installed in 2009. The supporting post and joists appear to be in continuing good condition. The next replacement cycle includes the structure and decking at 100%.
																land point appeal to so in community good conditions. The next replacement cycle metadoc and an accuming at 100 /m
4.5	Exterior Doors	10	EA	\$650.00	\$6,500	30	2024	100%	\$9,267	2054	100%	\$22,495				This category includes all exterior doors of the Community Center. Most doors appear to be in generally continuing good condition. Though we have scheduled replacement all at once, doors are generally replaced as individual units become damaged or deteriorated. Doors in a wet or chlorine environment generally have a
				********	<b>v</b> 0,000				**,=**			<b>4</b> ==, 100				shorter than average service life.
4.0	Basement			*40.000.00	<b>*</b> 40.000	-00	0047	4000/	\$44 F00	0007	4000/	<b>*</b> 00.000				We understand that there have been instances of water intrusion through below-grade walls of the lower levels, such as in the racquetball court area. Remediation
4.6	Waterproofing Allowance	1	LS	\$10,000.00	\$10,000	20	2017	100%	\$11,593	2037	100%	\$20,938				involves excavation at the exterior wall, cleaning, and re-application of a waterproof membrane.
5 Cor	mmunity CENTER INTE	RIORS														
5.1	Interior Doors	16	EA	\$525.00	\$8,400	40	2034	100%	\$16,095							This category includes the interior doors of the Community Center. All doors appear to be in generally continuing good condition. Doors are generally replaced as individual units become damaged or deteriorated. Doors in a wet or chlorine environment generally have a shorter than average service life.
																individual units become damaged or deteriorated. Doors in a wet or chlorine environment generally have a shorter than average service life.
5.2	Carpeting	192	SY	\$45.00	\$8,640	10	2018	100%	\$10,317	2028	100%	\$13,865	2038	100%	\$18,633	The carpet throughout the Community Center appears to be in generally good, fresh-looking condition having been replaced in 2008. Replacement costs and timing
	p g			******	<b>v</b> -,				******			<b>,</b> , , , , , , , , , , , , , , , , , ,			<b>4</b> 10,000	are generally discretionary. The costs used in the study are for a high-quality, commercial carpet and are based on the recent installation cost.
5.3	Vinyl Flooring	430	SF	\$7.20	\$3,096	25	2019	100%	\$3,808	2044	100%	\$7,972				Resilient vinyl flooring tiles are installed at the upstairs restrooms, the kitchen, and the central area of the shower rooms. All flooring appears to be serviceable condition with no major deterioration observed.
-						-				_						
5.4	Ceramic Tile	420	SF	\$14.00	\$5,880	25	2019	100%	\$7,232	2044	100%	\$15,141				The floors and shower walls of the shower rooms are grouted ceramic tile. All tile that could be observed appears to be in continuing good condition.
5.5	Dry Deck Flooring	284	SF	\$6.60	\$1,874	7	2013	100%	\$1,931	2020	100%	\$2,374	2027	100%	\$2,920	The non-slip surface of the shower rooms is provided by molded vinyl tiles. They appear to be in continuing good condition.
																Exercise equipment includes a treadmill, two stationery bicycles, an elliptical trainer, a stair climber, and a new three-place gym. All equipment appears to be in
5.6	Fitness Equipment	1	LS	\$32,000.00	\$32,000	10	2012	3%	\$960	2017	50%	\$18,548	2022	50%	\$21,503	continuing good condition. Replacements are scheduled at 50% of the value every five years.
-	Office Furnishings &															
5.7	Equipment	1	LS	\$35,000.00	\$35,000	10	2015	50%	\$19,123	2020	25%	\$11,084	2025	50%	\$25,699	This category includes computers, printers, copier/printer, file cabinets, desks, chairs, work station, bookshelves, and ID camera and cart. We have budgeted an allowance for partial replacements throughout the study period, including computer replacements every five years.
	Allowance															

#### COMPONENT DATA AND ASSET REPLACEMENT SCHEDULE **TABLE 1** 2012 Through 2031



								ise.	, T.	×.			×			www.masonreserves.com 800 -776 - 6980
	adment No.	Quan	litis .	of Measurement Unit Cost	Total	ksel Ba	e cal Service	a Cycle Heat	kage of Replace for	er.	Cycle Test	tage of Replacement	2nd Cycle	cycle Year	tage of Replace	Copyright © 1999 All rights reserved.  Set 3 td Cutle  DISCUSSION
<u> </u>	Carin	Ongi	Unit	Unit	Zota	4	All Very	8eice	Coest							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18
5.8	Furnishings Allowance	1	LS	\$17,500.00	\$17,500	10	2017	50%	\$10,144	2022	50%	\$11,759	2027	50%	\$13,632	This category includes valance and horizontal blind window treatments, sofas, chairs, a dining table and chairs, coffee, parsons, and end tables, a big screen television, a boom box, floor and table lamps, folding tables and chairs, and planters. All furnishings appear to be in continuing good condition. We have budgeted an allowance for partial replacements throughout the study period.
5.9	Racquetball Room Floor Re-Finishing	800	SF	\$8.60	\$6,880	15	2025	100%	\$10,104	2040	100%	\$15,741				The 20' by 40' racquetball court has what appears to be hardwood floating flooring installed. It appears to be in generally continuing good condition and is scheduled for eventual refinishing.
5.10	Kitchen Modernization	1	LS	\$17,500.00	\$17,500	25	2019	100%	\$21,523	2044	100%	\$45,064				Kitchen components include wall-mounted and base-mounted millwork and countertops, a microwave oven, a refrigerator with icemaker, a dishwasher, and a double stainless steel sink. All components appear to be in good, serviceable condition. We understand that a new refrigerator was recently purchased.
6 Cor	mmunity CENTER MEP															
6.1	HVAC Split-System #1	1	EA	\$13,800.00	\$13,800	15	2020	100%	\$17,481	2035	100%	\$27,235				This unit is a replacement Carrier Gemini, electric, Model #38ARQ008, Serial No. 1405G20134, 7-1/2 ton, split system, heat pump and is reportedly operating properly.
6.2	HVAC Split-System #2	1	EA	\$5,200.00	\$5,200	15	2014	100%	\$5,517	2034	100%	\$9,964				This unit is an original Carrier, 2-1/2 ton, electric, Model #0699#Z4821, split system, heat pump, which has exceeded its service life. We have re-scheduled it for near-term replacement.
6.3	HVAC Split-System #3	1	EA	\$13,800.00	\$13,800	20	2026	100%	\$20,874	2041	100%	\$32,521				This is a 2011 replacement unit. It is a Trane, 7-1/2 ton, electric, Model #TWA090D30RAA, split system, heat pump and is reportedly operating properly.
6.4	Water Heater	1	EA	\$1,725.00	\$1,725	20	2014	100%	\$1,830	2034	100%	\$3,305				Domestic hot water is provided to the shower rooms by a Rheem, residential, Serial #0293802180, 80-gallon, electric, water heater. The unit may have been in service for many years but appears to be in continuing good condition.
6.5	Electrical Modernization Allowance	1	LS	\$36,000.00	\$36,000	35	2029	100%	\$59,503	2064	100%	\$167,432				This category includes double-headed, hard-wired with battery backup emergency lights, exit signs, recessed and ceiling-mounted interior and exterior light fixtures, wall-mounted light bars at all sinks, fluorescent fixtures, racquetball court fixtures, ceiling fans, building-mounted small and large carriage exterior fixtures, flood lights and one security fixture, exhaust fans, and electrical distribution panels including Cutler-Hammer 200 amp load centers (2), Cutler Hammer 200 amp disconnect, a 120 amp load center, and a GE 300 amp motor control. All lighting and equipment appears to be in continuing good condition. Replacement timing and cost is generally discretionary.
6.6	Plumbing Modernization Allowance	1	LS	\$25,000.00	\$25,000	35	2029	100%	\$41,321	2064	100%	\$116,272				This category consists of sinks, commodes, urinals, showers, and partitions of the shower rooms and the restrooms, as well as the drinking fountains. All components appear to be in good, serviceable condition. The plumbing modernization cost includes limited piping replacement.
7 PO	OL FACILITY															
7.1	Pool Restoration Project	3,633	SF	\$52.00	\$188,916	30	2026	100%	\$285,752	2056	100%	\$693,596				The swimming pools are in-ground, cast-in-place concrete structures built on a cut and fill site. Most outdoor pools of this type, in this area, require a major renovation between twenty-five and forty years of age. The restoration might include beam re-construction, plumbing replacement/remediation, removal and replacement of the white coat, waterline tiles, coping, and sealants. It is prudent to plan for structural renovation now because of the large expense involved if required. This project should also include ADA upgrades and modified, dual-drain systems for safety. No current problems were reported with the main and wading pools.
7.2	Pool White Coat	3,655	SF	\$7.30	\$26,682	7	2014	100%	\$28,306	2021	100%	\$34,813	2033	100%	\$49,635	The white coat was not observed as the pool was covered for the season. It was previously replaced in 2007 and should achieve a few more years of service life. White coating seals the pool surface and helps prevent water infiltration into the structure of the pool. White coat generally has a service life of five to seven years.
7.3	Pool Coping	310	LF	\$32.00	\$9,920	3	2013	5%	\$511	2016	5%	\$558	2019	5%	\$610	Standard cast stone bullnose coping tiles are installed around the perimeter of the pools but were not observed as the pools were covered for the season. We have scheduled an allowance throughout the study period to address replacements of cracked, loose, or "hollow" tiles. The soft sealant between the coping and the pool deck appears to be in generally continuing good condition. Diligent maintenance of the soft joint sealant will prevent water infiltration behind the pool shell, which, if not controlled, will cause freeze/thaw damage.
7.4	Pool Fencing	1	LS	\$12,000.00	\$12,000	25	2016	100%	\$13,506	2041	100%	\$28,279				471 linear feet of vinyl coated, six or seven-foot-high, chain link fencing is constructed at the perimeter of the swimming pool deck and around the tot lot area. 50 linear feet of 8' high fencing is constructed near the tennis court end of the pool deck, and 35 linear feet of 3.5-foot-high fencing separates the wading pool from the main pool. Though it appears to be in generally continuing good, serviceable condition, the coating on the vertical and some horizontal posts is peeling and unsightly. This does not impact the serviceability, but is somewhat unsightly. Remediation techniques should be investigated to improve appearance. Replacement is scheduled to coincide with the pool restoration project.

7.11 Pool Area Brick Pavers

7.12 Pool Covers

2,064

3,800

SF

SF

\$35.00

\$3.75

\$72,240 40 2034 100% \$138,419

#### COMPONENT DATA AND ASSET REPLACEMENT SCHEDULE TABLE 1

2012 Through 2031



Mortared brick pavers provide the pedestrian surface adjacent to the pool area at the picnic area. The system appears to be in generally continuing good condition

The pools were covered for the season with nylon mesh covers, which appear to be in generally poor condition with extensive fading, deterioration, holes, and tears.

									.5							CAPITAL RESERVE ANALYSTS, INC.
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S	Cou.,	Ongr	Unit	Unit	Totio	14	ple 1st	6 <sub>6/0</sub>	cost	200	₽ <sub>ef</sub> C	cost	310	₽ <sub>ef</sub> C	cost	DISCUSSION
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18
7.5	Metal Handrailing	133	LF	\$80.00	\$10.640	E0.	2045	100%	\$28,221							Painted, heavy-gauge metal handrailings are constructed at the spa, at the wood deck, at the top of some retaining walls, and at the front entrance of the Community Center. The handrailings are generally in good condition with a minor amount of peeling paint and rust observed. With proper, diligent maintenance, including
7.5	Metal Halluralling	133	LF	\$60.00	\$10,040	30	2045	100 %	<b>⊅</b> 20,221							cleaning of peeling paint, priming, and painting, sealing bases, and repairing deteriorated areas by welding replacement parts, metal railings should provide a long service life.
	Pool Furniture				***			<b>500</b> /	***		<b>50</b> 0/	<b>^</b> 40.40 <b>=</b>		<b>500</b> /	400 504	This category includes aluminum-frame and vinyl webbing lounges, large and small chairs, and trash receptacles, fiberglass and metal or acrylic and metal tables, umbrellas, and fiberglass and metal picnic tables. All furniture was stored for the season and appears to be in generally continuing good condition. A small allowance
7.6	Allowance	1	LS	\$29,000.00	\$29,000	10	2017	50%	\$16,809	2022	50%	\$19,487	2027	50%	\$22,591	is budgeted near-term for minor replacements with a larger allowance budgeted throughout the study period to replace a percentage of the furniture as necessary. Re-
																webbing of damaged pieces periodically may extend the service life of the entire set of furniture. We understand that some table tops have been repainted.
	Dool Dorimotor															Pool perimeter equipment consists of one fixed lifeguard stand, a new, moveable lifeguard stand, three stainless steel ladders, and one stainless steel handrail. Most
7.7	Pool Perimeter Equipment	1	LS	\$8,000.00	\$8,000	30	2026	100%	\$12,101	2056	100%	\$29,372				components appear to be in continuing good condition and are scheduled for replacement coinciding with the pool restoration project. The remaining lifeguard stand
																has expanded rust at the base, which will require remediation in order to achieve the full service life and improve appearance.
	Fifteen-Year Pool															The main pool is served by a 7-1/2hp 2010 replacement metal pump and strainer assembly and is filtered by three original Triton TR-140, permanent media filters. The
7.8	Pump & Filtration Equipment	1	LS	\$15,000.00	\$15,000	15	2015	50%	\$8,195	2030	100%	\$25,536	2045	100%	\$39,785	equipment is in serviceable condition and should provide several more years of service.
	Ten-Year Pool Pump, Filtration, &															The wading pool is served by a 3/4hp plastic pump and strainer assembly and is filtered by one Triton TR-60, permanent media filter. Chlorination is accomplished by
7.9	Chlorination	1	LS	\$2,500.00	\$2,500	10	2015	100%	\$2,732	2025	100%	\$3,671	2035	100%	\$4,934	a Rolochem Model RC 100 SC and a FlexFlo Model A-100-N chemical feeder. The equipment is in serviceable condition and should provide a few more years of service.
	Equipment															
	Pool Area Brick															Brick and mortar retaining walls and planters are constructed at grade differentials at the swimming pool. Engineered repairs have greatly improved the condition of
7.10	Retaining Walls &	1	LS	\$25,000.00	\$25,000	10	2018	100%	\$29,851	2028	100%	\$40,118	2038	100%	\$53,915	the walls with the installation of control joints and tuckpointing damaged areas. Some additional minor cracking was observed, which should be addressed with ongoing repairs. With periodic repairs and tuckpointing performed at 10-year intervals the walls should provide a long service life.
	Features															going repairs. with periodic repairs and tuckpointing performed at 10-year intervals the walls should provide a long service life.

with a minimal amount of localized deterioration observed.

Replacement is scheduled near-term.

# 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:  $\frac{1}{2}$ 

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	<b>Action</b> is an area provided for the Board to make notations as to action taken on each component.

# CALENDAR OF EXPENDITURES TABLE 2



2012 Through 2031

			PRESENT COST	FUTURE COST	TOTAL ANNUAL	
YEAR	COMPONENT NO.	COMPONENT	2012	(INFLATED)	EXPENDITURES	ACTION
1	2	3	4	5	6	7
2012					2012	
	1.2	Asphalt Seal Coat, Community Center	\$2,150	\$2,150	TOTAL EXPENDITURES	
	1.3	Asphalt Full-Depth Repair & Crack Filling Allowan	\$1,000	\$1,000		
	1.4	Asphalt Footpaths	\$8,947	\$8,947		
	3.16	Pond, Structures, & Evaluations Allowance	\$40,000	\$40,000		
	3.17	Tree & Major Landscaping Allowance	\$34,000	\$34,000		
	5.6	Fitness Equipment	\$960	\$960		
			·	·	\$87,057	
2013					2013	
	3.7	Community Center Tennis Court Color Coat	\$6,500	\$6,695	TOTAL EXPENDITURES	
	5.5	Dry Deck Flooring	\$1,874	\$1,931		
	7.3	Pool Coping	\$496	\$511		
	7.12	Pool Covers	\$14,250	\$14,678		
					\$23,814	
2014					2014	
	2.1	Concrete Sidewalks & Steps	\$221	\$235	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	\$434	\$460		
	3.3	Wood Timber Retaining Walls	\$38,952	\$41,324		
	3.10	Section4 Tennis Court Color Coat	\$11,000	\$11,670		
	6.2	HVAC Split-System #2	\$5,200	\$5,517		
	6.4	Water Heater	\$1,725	\$1,830		
	7.2	Pool White Coat	\$26,682	\$28,306		
					\$89,342	
2015					2015	
	3.15	Storm Water Drainage System Allowance	\$17,500	\$19,123	TOTAL EXPENDITURES	
	5.7	Office Furnishings & Equipment Allowance	\$17,500	\$19,123		
	7.8	Fifteen-Year Pool Pump & Filtration Equipment	\$7,500	\$8,195		
	7.9	Ten-Year Pool Pump, Filtration, & Chlorination Eq	\$2,500	\$2,732	A40.4=0	
					\$49,173	
2016	• • • • • • • • • • • • • • • • • • • •	0	Anc.	40.10	2016	
	2.1	Concrete Sidewalks & Steps	\$221	\$249	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	\$434	\$488		
	2.3	Concrete Pool Deck	\$11,660	\$13,123		
	4.1	Re-Roofing Project	\$19,350	\$21,779		
	7.3	Pool Coping	\$496	\$558		
	7.4	Pool Fencing	\$12,000	\$13,506	\$40.704	
2017					\$49,704 2017	
2017	3.17	Tree & Major Landscaping Allowance	\$17,000	\$19,708	TOTAL EXPENDITURES	
	4.6	Basement Waterproofing Allowance	\$10,000	\$19,708 \$11,593	TOTAL EXPENDITURES	
	5.6	Fitness Equipment	\$16,000	\$11,593 \$18,548		
	5.8	Furnishings Allowance	\$8,750	\$10,546 \$10,144		
	7.6	Pool Furniture Allowance	\$14,500	\$16,809		
	1.0	1 Ooi 1 difficult Allowance	ψ1 <del>11</del> ,300	ψ10,003	\$76,802	
					ψ1 0,00 <u>2</u>	

# CALENDAR OF EXPENDITURES TABLE 2



2012 Through 2031

			PRESENT COST	FUTURE COST	TOTAL ANNUAL	
YEAR	COMPONENT NO.	COMPONENT	2012	(INFLATED)	EXPENDITURES	ACTION
1 LAN	2	3	4	5	6	7
2040	2	3	4	3	•	r
2018	1.2	Asphalt Seal Coat, Community Center	\$2,150	\$2,567	2018 TOTAL EXPENDITURES	
	1.3	Asphalt Full-Depth Repair & Crack Filling Allowan	\$2,150	\$5,970	TOTAL EXPENDITURES	
	1.4	Asphalt Footpaths	\$18,581	\$22,187		
	2.1	Concrete Sidewalks & Steps	\$221	\$264		
	2.2	Concrete Curbs & Gutters	\$434	\$518		
	3.6	Community Center Tennis Court Restoration	\$25,000	\$29,851		
	3.13	Multi-Purpose Court Color Coat	\$3,500	\$4,179		
	5.2	Carpeting	\$8,640	\$10,317		
	7.10	Pool Area Brick Retaining Walls & Features	\$25,000	\$29,851	****	
					\$105,706	
2019		Ocation A Transis Ocat Destauration	<b>AFO</b> 000	**************************************	2019	
	3.9	Section 4 Tennis Court Restoration	\$50,000 \$43,800	\$61,494 \$46,072	TOTAL EXPENDITURES	
	3.11 5.3	Section 4 Tennis Court Fencing Vinyl Flooring	\$13,800 \$3,096	\$16,972 \$3,808		
	5.4	Ceramic Tile	\$5,880	\$3,606 \$7,232		
	5.10	Kitchen Modernization	\$17,500	\$21,523		
	7.3	Pool Coping	\$496	\$610		
	1.0		ΨΨ	ΨΟΙΟ	\$111,638	
2020					2020	
	2.1	Concrete Sidewalks & Steps	\$221	\$280	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	\$434	\$550		
	3.18	Cemetery Assets	\$2,900	\$3,674		
	5.5	Dry Deck Flooring	\$1,874	\$2,374		
	5.7	Office Furnishings & Equipment Allowance	\$8,750	\$11,084		
	6.1	HVAC Split-System #1	\$13,800	\$17,481	407.444	
2004					\$35,444	
2021	7.2	Pool White Coat	\$26,682	\$34,813	2021 TOTAL EXPENDITURES	
	1.2	Fooi Wille Coat	\$20,00Z	ψ34,013	\$34,813	
2022					2022	
	2.1	Concrete Sidewalks & Steps	\$221	\$297	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	\$434	\$583		
	3.5	Tot Lot & Outdoor Furniture Allowance	\$99,000	\$133,048		
	3.15	Storm Water Drainage System Allowance	\$17,500	\$23,519		
	3.17	Tree & Major Landscaping Allowance	\$34,000	\$45,693		
	3.19	Solar Lighting System	\$27,600	\$37,092		
	5.6	Fitness Equipment	\$16,000	\$21,503		
	5.8	Furnishings Allowance	\$8,750	\$11,759		
	7.3	Pool Coping	\$496	\$667		
	7.6	Pool Furniture Allowance	\$14,500	\$19,487	\$293,648	
2023					2023	
2023	3.7	Community Center Tennis Court Color Coat	\$6,500	\$8,998	TOTAL EXPENDITURES	
	7.12	Pool Covers	\$14,250	\$19,725	TOTAL EXILIBITIONED	
	=		ų, <b>200</b>	Ţ,; = -	\$28,723	
2024					2024	
	1.4	Asphalt Footpaths	\$20,646	\$29,436	TOTAL EXPENDITURES	
	2.1	Concrete Sidewalks & Steps	\$221	\$316		
	2.2	Concrete Curbs & Gutters	\$434	\$619		
	3.2	Flag Pole	\$4,000	\$5,703		
	3.10	Section 8B Tennis Court Color Coat	\$11,000	\$15,683		
	4.2	Vinyl Siding	\$39,000	\$55,605		
	4.3	Windows	\$24,000	\$34,218		
	4.4	Wood Deck	\$5,880 \$6,500	\$8,383		
	4.5	Exterior Doors	\$6,500	\$9,267	\$150 221	
					\$159,231	

# CALENDAR OF EXPENDITURES TABLE 2



2012 Through 2031

			PRESENT COST	FUTURE COST	TOTAL ANNUAL	
VEAD	COMPONENT NO	COMPONENT				ACTION
YEAR	COMPONENT NO		2012	(INFLATED)	EXPENDITURES	ACTION
1	2	3	4	5	6	7
2025	4.4	Applied Destaurties Desired Community Contact	<b>604.050</b>	£45.000	2025	
	1.1 1.3	Asphalt Restoration Project, Community Center Asphalt Full-Depth Repair & Crack Filling Allowand	\$31,250 \$10,000	\$45,892 \$14,685	TOTAL EXPENDITURES	
	3.13	Multi-Purpose Court Color Coat	\$3,500	\$14,665 \$5,140		
	5.7	Office Furnishings & Equipment Allowance	\$17,500	\$25,699		
	5.9	Racquetball Room Floor Re-Finishing	\$6,880	\$10,104		
	7.3	Pool Coping	\$496	\$728		
	7.9	Ten-Year Pool Pump, Filtration, & Chlorination Eq	\$2,500	\$3,671		
			• •	• •	\$105,919	
2026					2026	
	2.1	Concrete Sidewalks & Steps	\$221	\$335	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	\$434	\$656		
	2.3	Concrete Pool Deck	\$23,320	\$35,273		
	6.3	HVAC Split-System #3	\$13,800	\$20,874		
	7.1	Pool Restoration Project	\$188,916	\$285,752		
	7.7	Pool Perimeter Equipment	\$8,000	\$12,101	\$354,991	
2027					2027	
2021	3.17	Tree & Major Landscaping Allowance	\$17,000	\$26,485	TOTAL EXPENDITURES	
	5.5	Dry Deck Flooring	\$1,874	\$2,920	TOTAL EXPENDITORES	
	5.6	Fitness Equipment	\$16,000	\$24,927		
	5.8	Furnishings Allowance	\$8,750	\$13,632		
	7.6	Pool Furniture Allowance	\$14,500	\$22,591		
				-	\$90,556	
2028					2028	
	2.1	Concrete Sidewalks & Steps	\$221	\$355	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	\$434	\$696		
	3.8	Community Center Tennis Court Fencing	\$10,350	\$16,609		
	5.2	Carpeting	\$8,640	\$13,865		
	7.3 7.10	Pool Coping Pool Area Brick Retaining Walls & Features	\$496 \$25,000	\$796 \$40,118		
	7.10	FOOI Area Brick Retaining Walls & Features	\$25,000	\$40,116	\$72,439	
2029					2029	
2023	3.7	Community Center Tennis Court Color Coat	\$6,500	\$10,744	TOTAL EXPENDITURES	
	3.10	Section 8B Tennis Court Color Coat	\$11,000	\$18,181		
	3.15	Storm Water Drainage System Allowance	\$17,500	\$28,925		
	6.5	Electrical Modernization Allowance	\$36,000	\$59,503		
	6.6	Plumbing Modernization Allowance	\$25,000	\$41,321		
					\$158,673	
2030			***		2030	
	1.4	Asphalt Footpaths	\$20,646	\$35,148	TOTAL EXPENDITURES	
	2.1	Concrete Sidewalks & Steps	\$221	\$377		
	2.2	Concrete Curbs & Gutters	\$434 \$43.500	\$739 \$22,002		
	3.1 5.7	Community Entrance Sign Office Furnishings & Equipment Allowance	\$13,500 \$8,750	\$22,983 \$14,896		
	7.8	Fifteen-Year Pool Pump & Filtration Equipment	\$0,750 \$15,000	\$14,696		
	7.0		ψ10,000	<b>420,000</b>	\$99,680	
2031					2031	
	1.2	Asphalt Seal Coat, Community Center	\$2,150	\$3,770	TOTAL EXPENDITURES	
	1.3	Asphalt Full-Depth Repair & Crack Filling Allowan	\$1,000	\$1,754		
	3.12	Multi-Purpose Court Restoration	\$7,000	\$12,275		
	3.14	Basketball Goals	\$5,000	\$8,768		
	7.3	Pool Coping	\$496	\$870	Ac	
					\$27,435	

### 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	<b>Total Asset Base</b> of all common capital assets included in the reserve fund with costs adjusted for inflation.
Column 3	<b>Beginning Reserve Fund Balance</b> is the reserve fund balance after all activity in the prior year is completed.
Column 4	<b>Annual Contribution</b> , 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 <b>7</b>	<b>Ending Reserve Fund Balance</b> 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.

#### FUNDING ANALYSIS HYBRID APPROACH CASH FLOW METHOD TABLE 3



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Beginning Reserve Fund Balance:

Annual Contribution To Reserves:

Contribution Percentage Increase:

Annual Inflation Factor:

Annual Interest Income Factor:

	Beginning Reserve Fund Balance:	Annual Contribution To Reserves:	Contribution Percentage Increase:	Annual Inflation Factor:	Annual Interest Income Factor:
In Dollars	837,829	78,665	3.00%	3.00%	2.00%
TOTAL ASSET BASE	BEGINNING RESERVE FUND BALANCE	ANNUAL CONTRIBUTION	INTEREST INCOME	CAPITAL EXPENDITURES	ENDING RESERVE FUND BALANCE
2	3	4	5	6	7
1,466,970	837,829	78,665	17,680	87,057	847,117
1,510,979	847,117	81,025	17,723	23,814	922,051
1,556,308	922,051	83,456	18,550	89,342	934,714
1,602,998	934,714	85,959	19,269	49,173	990,770
1,651,087	990,770	88,538	20,423	49,703	1,050,028
1,700,620	1,050,028	91,194	21,354	76,802	1,085,774
1,751,639	1,085,774	93,930	21,791	105,704	1,095,791
1,804,188	1,095,791	96,748	21,959	111,639	1,102,859
1,858,313	1,102,859	99,650	22,962	35,443	1,190,028
1,914,063	1,190,028	102,640	24,760	34,813	1,282,615
1,971,485	1,282,615	105,719	23,850	293,648	1,118,536
2,030,629	1,118,536	108,891	23,452	28,723	1,222,156
2,091,548	1,222,156	112,157	24,161	159,230	1,199,244
2,154,295	1,199,244	115,522	24,314	105,919	1,233,161
2,218,923	1,233,161	118,988	22,330	354,991	1,019,488
2,285,491	1,019,488	122,557	20,930	90,555	1,072,420
2,354,056	1,072,420	126,234	22,235	72,439	1,148,450
2,424,678	1,148,450	130,021	22,874	158,674	1,142,671
2,497,418	1,142,671	133,922	23,441	99,679	1,200,355
2,572,340	1,200,355	137,940	25,434	27,437	1,336,291
DY PERIOD TOTALS		2,113,757	439,490	2,054,785	FULLY FUNDED BALANCE GOAL
	TOTAL ASSET BASE  2 1,466,970 1,510,979 1,556,308 1,602,998 1,651,087 1,700,620 1,751,639 1,804,188 1,858,313 1,914,063 1,971,485 2,030,629 2,091,548 2,154,295 2,218,923 2,285,491 2,354,056 2,424,678 2,497,418	In Dollars         837,829           TOTAL ASSET BASE         BEGINNING RESERVE FUND BALANCE           2         3           1,466,970         837,829           1,510,979         847,117           1,556,308         922,051           1,602,998         934,714           1,651,087         990,770           1,700,620         1,050,028           1,751,639         1,085,774           1,804,188         1,095,791           1,858,313         1,102,859           1,914,063         1,190,028           1,971,485         1,282,615           2,030,629         1,118,536           2,091,548         1,222,156           2,154,295         1,199,244           2,218,923         1,233,161           2,285,491         1,019,488           2,354,056         1,072,420           2,424,678         1,148,450           2,497,418         1,142,671           2,572,340         1,200,355	TOTAL ASSET   BEGINNING RESERVE FUND BALANCE   ANNUAL CONTRIBUTION	TOTAL ASSET	TOTAL ASSET

### 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.

In Dollars

#### **FUNDING ANALYSIS COMPONENT METHOD - TABLE 4**



www.masonreserves.com

Beginning Reserve Fund Balance: 837,829

Component Number	COMPONENT	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
1 ASPHAI	LT COMPONENTS						•	•	•				'	'		•	•		•	•	
1.1	Asphalt Restoration Project, Community Center	1,032	1,032	1,032	1,032	1,032	1,032	1,032	1,032	1,032	1,032	1,032	1,032	1,032	3,603	3,603	3,603	3,603	3,603	3,603	3,603
1.2	Asphalt Seal Coat, Community Center	1,113	402	402	402	402	402	254	254	254	254	254	254	254	254	254	254	254	254	254	706
1.3	Asphalt Full-Depth Repair & Crack Filling Allowance	1,266	936	936	936	936	936	1,953	1,953	1,953	1,953	1,953	1,953	1,953	275	275	275	275	275	275	1,641
1.4	Asphalt Footpaths	6,436	3,478	3,478	3,478	3,478	3,478	4,614	4,614	4,614	4,614	4,614	4,614	5,509	5,509	5,509	5,509	5,509	5,509	2,851	2,851
2 CONCR	ETE COMPONENTS																				
2.1	Concrete Sidewalks & Steps	38	38	122	122	129	129	137	137	146	146	155	155	164	164	174	174	185	185	196	196
2.2	Concrete Curbs & Gutters	75	75	239	239	254	254	269	269	286	286	303	303	321	321	341	341	362	362	384	384
2.3	Concrete Pool Deck	1,052	1,052	1,052	1,052	3,184	3,184	3,184	3,184	3,184	3,184	3,184	3,184	3,184	3,184	2,139	2,139	2,139	2,139	2,139	2,139
3 SITE FE	ATURES												-	-							
3.1	Community Entrance Sign	354	354	354	354	354	354	354	354	354	354	354	354	354	354	354	354	354	354	1,687	1,687
3.2	Flag Pole	140	140	140	140	140	140	140	140	140	140	140	140	337	337	337	337	337	337	337	337
3.3	Wood Timber Retaining Walls	6,763	6,763	3,033	3,033	3,033	3,033	3,033	3,033	3,033	3,033	3,033	3,033	3,033	3,033	3,033	3,033	3,033	3,033	3,033	3,033
3.4	Modular Block Retaining Wall	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
3.5	Tot Lot & Outdoor Furniture Allowance	4,014	4,014	4,014	4,014	4,014	4,014	4,014	4,014	4,014	4,014	11,841	11,841	11,841	11,841	11,841	11,841	11,841	11,841	11,841	11,841
3.6	Community Center Tennis Court Restoration	1,564	1,564	1,564	1,564	1,564	1,564	2,191	2,191	2,191	2,191	2,191	2,191	2,191	2,191	2,191	2,191	2,191	2,191	2,191	2,191
3.7	Community Center Tennis Court Color Coat	2,214	812	812	812	812	812	812	812	812	812	812	1,684	1,684	1,684	1,684	1,684	1,684	2,367	2,367	2,367
3.8	Community Center Tennis Court Fencing	294	294	294	294	294	294	294	294	294	294	294	294	294	294	294	294	922	922	922	922
3.9	Section 4 Tennis Court Restoration	2,733	2,733	2,733	2,733	2,733	2,733	2,733	4,513	4,513	4,513	4,513	4,513	4,513	4,513	4,513	4,513	4,513	4,513	4,513	4,513
3.10	Section 4 Tennis Court Color Coat	1,910	1,910	1,416	1,416	1,416	1,416	1,416	1,416	1,416	1,416	1,416	1,416	3,455	3,455	3,455	3,455	3,455	2,206	2,206	2,206
3.11	Section 4 Tennis Court Fencing	754	754	754	754	754	754	754	1,002	1,002	1,002	1,002	1,002	1,002	1,002	1,002	1,002	1,002	1,002	1,002	1,002
3.12	Multi-Purpose Court Restoration	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	901
3.13	Multi-Purpose Court Color Coat	219	219	219	219	219	219	684	684	684	684	684	684	684	578	578	578	578	578	578	578
3.14	Basketball Goals	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	517
3.15	Storm Water Drainage System Allowance	2,066	2,066	2,066	3,128	3,128	3,128	3,128	3,128	3,128	3,128	3,847	3,847	3,847	3,847	3,847	3,847	3,847	4,731	4,731	4,731
3.16	Pond, Structures, & Evaluations Allowance	16,162	2,936	2,936	2,936	2,936	2,936	2,936	2,936	2,936	2,936	2,936	2,936	2,936	2,936	2,936	2,936	2,936	2,936	2,936	2,936
3.17	Tree & Major Landscaping Allowance	14,987	3,745	3,745	3,745	3,745	8,682	8,682	8,682	8,682	8,682	5,033	5,033	5,033	5,033	5,033	11,668	11,668	11,668	11,668	11,668
3.18	Cemetery Assets	141	141	141	141	141	141	141	141	327	327	327	327	327	327	327	327	327	327	327	327
3.19	Solar Lighting System	1,119	1,119	1,119	1,119	1,119	1,119	1,119	1,119	1,119	1,119	3,301	3,301	3,301	3,301	3,301	3,301	3,301	3,301	3,301	3,301
4 COMMU	JNITY CENTER ARCHITECTURAL FEATURES																				
4.1	Re-Roofing Project	1,747	1,747	1,747	1,747	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598
4.2	Vinyl Siding	1,369	1,369	1,369	1,369	1,369	1,369	1,369	1,369	1,369	1,369	1,369	1,369	3,282	3,282	3,282	3,282	3,282	3,282	3,282	3,282
4.3	Windows	843	843	843	843	843	843	843	843	843	843	843	843	2,019	2,019	2,019	2,019	2,019	2,019	2,019	2,019
4.4	Wood Deck	206	206	206	206	206	206	206	206	206	206	206	206	373	373	373	373	373	373	373	373
4.5	Exterior Doors	228	228	228	228	228	228	228	228	228	228	228	228	547	547	547	547	547	547	547	547
4.6	Basement Waterproofing Allowance	736	736	736	736	736	851	851	851	851	851	851	851	851	851	851	851	851	851	851	851
5 COMMU	JNITY CENTER INTERIORS																				
5.1	Interior Doors	195	195	195	195	195	195	195	195	195	195	195	195	195	195	195	195	195	195	195	195
5.2	Carpeting	540	540	540	540	540	540	1,252	1,252	1,252	1,252	1,252	1,252	1,252	1,252	1,252	1,252	1,682	1,682	1,682	1,682
5.3	Vinyl Flooring	169	169	169	169	169	169	169	246	246	246	246	246	246	246	246	246	246	246	246	246

In Dollars

COMPONENT METHOD SUMMARY

BEGINNING RESERVE FUND BALANCE

PLUS ANNUAL COMPONENT CONTRIBUTION

**CAPITAL EXPENDITURES** 

**SUBTOTAL** 

PLUS INTEREST INCOME @ 2.00%

**FULLY FUNDED RESERVE FUND BALANCE** 

#### **FUNDING ANALYSIS COMPONENT METHOD - TABLE 4**

CAPITAL RESERVE ANALYSTS, INC.

www.masonreserves.com

Beginning Reserve Fund Balance: 837,829

800-776-6980

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Component Number	COMPONENT	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
5.4	Ceramic Tile	321	321	321	321	321	321	321	467	467	467	467	467	467	467	467	467	467	467	467	467
5.5	Dry Deck Flooring	638	316	316	316	316	316	316	316	388	388	388	388	388	388	388	478	478	478	478	478
5.6	Fitness Equipment	3,842	3,524	3,524	3,524	3,524	4,086	4,086	4,086	4,086	4,086	4,737	4,737	4,737	4,737	4,737	5,491	5,491	5,491	5,491	5,491
5.7	Office Furnishings & Equipment Allowance	2,066	2,066	2,066	2,106	2,106	2,106	2,106	2,106	4,883	4,883	4,883	4,883	4,883	2,831	2,831	2,831	2,831	2,831	6,563	6,563
5.8	Furnishings Allowance	644	644	644	644	644	2,234	2,234	2,234	2,234	2,234	2,590	2,590	2,590	2,590	2,590	3,003	3,003	3,003	3,003	3,003
5.9	Racquetball Room Floor Re-Finishing	227	227	227	227	227	227	227	227	227	227	227	227	227	899	899	899	899	899	899	899
5.10	Kitchen Modernization	957	957	957	957	957	957	957	1,388	1,388	1,388	1,388	1,388	1,388	1,388	1,388	1,388	1,388	1,388	1,388	1,388
6 COMM	JNITY CENTER MEP								<u> </u>						ı						
6.1	HVAC Split-System #1	673	673	673	673	673	673	673	673		1,556	1,556	1,556	1,556	1,556	1,556	1,556	1,556	1,556	1,556	1,556
6.2	HVAC Split-System #2	903	903	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405
6.3	HVAC Split-System #3	432	432	432	432	432	432	432	432	432	432	432	432	432	432	1,858	1,858	1,858	1,858	1,858	1,858
6.4	Water Heater	300	300	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134
6.5	Electrical Modernization Allowance	982	982	982	982	982	982	982	982	982	982	982	982	982	982	982	982	982	3,302	3,302	3,302
6.6 7 POOL F	Plumbing Modernization Allowance ACII ITY	682	682	682	682	682	682	682	682	682	682	682	682	682	682	682	682	682	2,293	2,293	2,293
7.1	Pool Restoration Project	5.907	5,907	5,907	5,907	5,907	5,907	5,907	5,907	5,907	5,907	5,907	5,907	5,907	5,907	16,864	16,864	16,864	16,864	16,864	16,864
7.1	Pool White Coat	4,633	4,633	4,630	4,630	4,630	4,630	4,630	4,630	4,630	3,657	3,657	3,657	3,657	3,657	3,657	3,657	3,657	3,657	3,657	3,657
7.3	Pool Coping	169	180	180	180	197	197	197	215	215	215	235	235	235	257	257	257	281	281	281	307
7.4	Pool Fencing	1,083	1,083	1,083	1,083	871	871	871	871	871	871	871	871	871	871	871	871	871	871	871	871
7.5	Metal Handrailing	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202
7.6	Pool Furniture Allowance	1,068	1,068	1,068	1,068	1,068	3,703	3,703	3,703	3,703	3,703	4,293	4,293	4,293	4,293	4,293	4,976	4,976	4,976	4,976	4,976
7.7	Pool Perimeter Equipment	250	250	250	250	250	250	250	250	250	250	250	250	250	250	714	714	714	714	714	714
7.8	Fifteen-Year Pool Pump & Filtration Equipment	885	885	885	1,459	1,459	1,459	1,459	1,459	1,459	1,459	1,459	1,459	1,459	1,459	1,459	1,459	1,459	1,459	2,273	2,273
7.9	Ten-Year Pool Pump, Filtration, & Chlorination Equipme	295	295	295	331	331	331	331	331	331	331	331	331	331	445	445	445	445	445	445	445
7.10	Pool Area Brick Retaining Walls & Features	1,564	1,564	1,564	1,564	1,564	1,564	3,621	3,621	3,621	3,621	3,621	3,621	3,621	3,621	3,621	3,621	4,867	4,867	4,867	4,867
7.11	Pool Area Brick Pavers	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673
7.12	Pool Covers	4,853	1,781	1,781	1,781	1,781	1,781	1,781	1,781	1,781	1,781	1,781	2,393	2,393	2,393	2,393	2,393	2,393	2,393	2,393	2,393
<u> </u>	NNUAL COMPONENT CONTRIBUTION TOTALS	108,287	74,717	70,074	71,786	73,596	83,435	89,324	92,024	95,968	94,995	103,717	105,201	111,934	111,477	123,309	131,884	134,244	138,493	141,747	144,705
P	NNUAL COMPONENT CONTRIBUTION TOTALS	108,287	74,717	70,074	/1,/86	73,596	83,435	89,324	92,024	95,968	94,995	103,/1/	105,201	111,934	111,477	123,309	131,884	134,244	138,493	141,/4/	144,705

TOTAL	2,054,785
I EXPENDITURES	_,

2015

947,174

71,786

49,173

969,787

19,901

989,688

2016

73,596

49,703

20,778

1,013,581

1,034,359

2017

989,688 1,034,359 1,062,779

83,435

76,802

1,040,992

21,787

1,062,779

2018

89,324

105,704

1,046,399

22,425

2019

1,068,825

92,024

111,639

1,049,210

1,068,825 | 1,071,786 | 1,154,991

22,577

2020

1,071,786

95,968

35,443

22,679

1,132,311

2021

1,154,991

94,995

34,813

24,348

1,215,173

1,239,521

2022

1,239,521

103,717

293,648

1,049,590

26,149

1,075,739 1,175,077

2023

1,075,739

105,201

28,723

1,152,217

22,860

2012

837,829

108,287

87,057

859,059

18,091

877,150

2013

877,150

74,717

23,814

928,053

18,519

946,572

2014

946,572

70,074

89,342

927,304

19,870

947,174

TOTAL CONTRIBUTIONS 2,100,917
-------------------------------

OTHER V DEDICE	
STUDY PERIOD	452.330
TOTAL INTEREST	432,330

2024

1,175,077

111,934

159,230

1,127,781

24,938

1,152,719 1,182,759

2025

1,152,719

111,477

105,919

1,158,277

24,482

2026

1,182,759

123,309

354,991

951,077

25,217

976,294

2027

976,294

131,884

90,555

1,017,623

21,143

1,038,767

AVERAGE ANNUAL	105,046
CONTRIBUTION	105,040

2028

1,038,767

134,244

72,439

,100,572

22,430

2029

1,123,002

138,493

158,674

24,177

1,123,002 1,126,997 1,193,358 1,336,291

1,102,821

2030

1,126,997

141,747

99,679

1,169,065

24,293

2031

1,193,358

144,705

27,437

1,310,626

25,664

ULLY FUNDER **SALANCE GOA** 

## COMPONENT DATA AND ASSET REPLACEMENT SCHEDULE TABLE 1 EXPLANATION

This table lists the common assets included in the reserve fund plan and provides details of the replacement schedules. A narrative discussion is provided adjacent to each component. Photo references and maintenance protocol reference numbers are also provided. An explanation of each column in the table follows:

Column 1	Component No. is consistent throughout all tables.
Column 2	Component is a brief description of the component.
Column 3	<b>Quantity</b> of the component studied, which may be an exact number, a rough estimate, or simply a (1) if the expenditure forecast is a lump sum allowance for replacement of an unquantified component.
Column 4	Unit of Measurement used to quantify the component:  SY = Square Yards SF = Square Feet LF = Linear Feet EA = Each LS = Lump Sum PR = Pair CY = Cubic Yards
Column 5	<b>Unit Cost</b> used to calculate the required expenditure. This unit cost includes removal of existing components and installation of new components, including materials, labor, and overhead and profit for the contractor.
Column 6	<b>Total Asset Base</b> is the total value of common assets included in the study in current dollars. In addition to capital assets, this figure includes one cycle of maintenance liability.
Column 7	Typical Service Life (Yrs) or Cycle is the typical life expectancy of similar components in average conditions or the length of years between replacement cycles, and does not necessarily reflect the conditions observed during the field evaluation. This number is furnished for reference and is not necessarily computed in the system.
Column 8	1 <sup>st</sup> Cycle Year is the scheduled year of the first projected replacement or repair.
Column 9	Percentage of Replacement is the percentage of component value to be replaced in the first replacement cycle.
Column 10	Cost for 1 <sup>st</sup> Cycle is the future cost (with inflation) of the replacement. It is the product of Column 6 times Column 9 in future dollars.
Column 11	<b>2</b> <sup>nd</sup> <b>Cycle Year</b> is the scheduled year of the second projected replacement or repair. If a second cycle is not listed, it is because the first cycle is beyond the end of the study.
Column 12	Percentage of Replacement is the percentage of component value to be replaced in the second replacement cycle. This can vary from the percentage of the first cycle for various reasons, such as the increased age of a component may require a larger amount of repair.
Columns 13 Through 16	Cycles, Percentage, and Cost repeat as itemized above. Although not shown on the tables, the cycles continue throughout the study period and beyond.
Column 18	<b>Discussion</b> is the description and observed condition of the component and the methodology employed in the decision-making process. Includes the photo reference, <b>(Photo #1, #2, etc.)</b> and Maintenance Protocol reference numbers <b>(7.1, 7.2 etc.)</b> if applicable.

#### Reserve Fund Plan for POTOMAC PLACE NEIGHBORHOOD **RESERVES** Mclean, Virginia

#### COMPONENT DATA AND ASSET REPLACEMENT SCHEDULE TABLE 1 2012 Through 2031



									15							CAPITAL RESEVE ANALYSTS, INC.
								or Cycle Head	3.	'n		d	ŗt.			www.masonreserves.com 800 -776 - 6980
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	, NO.			of Measurement Unit Cost	TatalAss	,885	ice	or	kage of Replia	"CACHE	leat	ntage of Replaces	29 CACK	Legal .	entage of Replace	DISCUSSION
	Robert No.	ă.	Łij.	of Medi Unit Cost	, AS	5e2	cal Serv	ycle to or	tage for	75.	cycle Teat	ntage for	21.	cycle Vear	antage (	
CON	Count	Quanti	Unit	Unit	Total	4	pice next	be <sub>dCC</sub>	cost	2710	6sice	cost	310	66 <sub>4C</sub>	cost	DISCUSSION
1	2 HALT COMPONENTS	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18
1 ASP	HALI COMPONENTS															The asphalt pavement throughout Section 1 appears to be in generally fair to continuing good condition. The thickness of the pavement could not be visually
																determined. Restoration includes curb to curb full 2 " milling and overlay replacement with 2" new compacted asphalt. Costs are based on a recent conversation with the Association's paving company regarding 2012 projected pricing. Core sampling should be used to determine the depth and condition
1.1	Asphalt Restoration Project, Section 1	13,700	SY	\$12.50	\$171,250	18	2012	20%	\$34,250	2015	80%	\$145,385	2030	100%	\$244,587	of the sub-base and pavement prior to restoration. Costs include re-striping, but not replacement of any inadequate sub-base. A full service life is dependent
																on preventative maintenance being performed as suggested in the Preventive Maintenance section of the report and scheduled in Items 1.5 and 1.6 below. See the Asphalt Pavement Report, Section 7, for additional details. One street, Flank Street is scheduled for 2012. The remaining streets in Section 1 are
																scheduled for 2015.
																The asphalt pavement throughout Section 2 appears to be in generally fair to continuing good condition. The thickness of the pavement could not be visually determined. Restoration includes curb to curb full 2 " milling and overlay replacement with 2" new compacted asphalt. Costs are based on a recent
4.0	Asphalt Restoration	04.400	01/	£40.50	\$204.0E0	40	0040	0.407	<b>\$70.000</b>	0045	400/	£407.070	0000	4000/	£400.050	conversation with the Association's paving company regarding 2012 projected pricing. Core sampling should be used to determine the depth and condition
1.2	Project, Section 2	24,100	SY	\$12.50	\$301,250	10	2012	24%	\$72,300	2015	40%	\$127,876	2030	100%	\$430,259	of the sub-base and pavement prior to restoration. Costs include re-striping, but not replacement of any inadequate sub-base. A full service life is dependent on preventative maintenance being performed as suggested in the Preventive Maintenance section of the report and scheduled in Items 1.5 and 1.6 below.
																See the Asphalt Pavement Report, Section 7, for additional details. One street, Killman Drive, is scheduled for 2012. The remaining streets in Section 2 were either restored in 2011 or scheduled for restoration in 2015.
																The asphalt pavement throughout Section 3 was fully restored in 2007 and appears to be in like new condition. The thickness of the pavement could not be visually determined. Restoration includes curb to curb full 2 " milling and overlay replacement with 2" new compacted asphalt. Costs are based on a recent
1.3	Asphalt Restoration Project, Section 3	18,160	SY	\$12.50	\$227,000	18	2025	100%	\$293,649	2043	100%	\$419,403				conversation with Dominion Paving & Sealing regarding 2012 projected pricing. Core sampling should be used to determine the depth and condition of the sub-base and pavement prior to restoration. Costs include re-striping, but not replacement of any inadequate sub-base. A full service life is dependent on
	roject, occitori o															preventative maintenance being performed as suggested in the Preventive Maintenance section of the report and scheduled in Items 1.5 and 1.6 below. See
																the Asphalt Pavement Report, Section 7, for additional details.
																The asphalt pavement throughout Section 4 appears to be in generally fair to continuing good condition. The thickness of the pavement could not be visually
																determined. Restoration includes curb to curb full 2 " milling and overlay replacement with 2" new compacted asphalt. Costs are based on a recent conversation with the Association's paving company regarding 2012 projected pricing. Core sampling should be used to determine the depth and condition
1.4	Asphalt Restoration Project, Section 4	14,500	SY	\$12.50	\$181,250	18	2012	18%	\$32,625	2015	17%	\$32,698	2029	100%	\$253,794	of the sub-base and pavement prior to restoration. Costs include re-striping, but not replacement of any inadequate sub-base. A full service life is dependent
																on preventative maintenance being performed as suggested in the Preventive Maintenance section of the report and scheduled in Items 1.5 and 1.6 below. See the Asphalt Pavement Report, Section 7, for additional details. Two streets, Kathy Court and Amy Court, are scheduled for 2012. The remaining streets in
																Section 4 were either restored in 2011 or scheduled for restoration in 2015.
																The pavements have been seal coated in the past, but most have had extensive repairs or restorations. In order to help extend the service life of the new
1.5	Asphalt Seal Coat	70,460	SY	\$0.86	\$60,596	6	2012	100%	\$60,596	2018	100%	\$68,240	2024	100%	\$76,850	pavements and improve curb appeal after repairs are performed, we have scheduled seal coating projects every six years, including the years of the pavement restoration projects. Seal coating projects include striping and curb painting. A community-wide application of seal coat has been scheduled near-
																term for uniformity of appearance and scheduling management.
		_					_				_					Only very small quantities of deflected pavement, indicative of sub-base damage, were observed in all sections. Random longitudinal and transverse
	Asphalt Full-Depth Repair & Crack	1	LS	\$200,000.00	\$200,000	6	2012	10%	\$20,000	2018	25%	\$56,308	2024	50%	\$126,824	cracking were also present on most street including the 2007 restorations. Repairs are essential in order to achieve the projected service life of the pavements. Mill repairs and crack filling are scheduled progressively every six years throughout the study period, including the year of the asphalt
	Filling Allowance	•		<b>\$200,000.00</b>	Ψ200,000		2012	1070	<b>\$20,000</b>	20.0	2070	400,000	2021	0070	Ų:20,02·	restoration projects. The budget has been significantly reduced reflecting the overall improved condition of the pavements, and anticipated better
2.001	ICRETE COMPONENT															management of the asset in the future. See the Asphalt Pavement Report, Section 7, for additional details.
2 CON	ICRETE COMPONENT	5														
																Concrete sidewalks throughout the community are generally 4' wide with wider sections at assessable ramps. The thickness of the concrete could not be visually determined. Their condition ranges from continuing good to fair with replacement sections observed throughout the neighborhoods. We observed
																approximately 928 square feet of deficient concrete including settlement tripping hazards, large cracks, and severe scaling. Many additional sections display
2.1	Concrete Sidewalks	79,950	SF	\$6.60	\$527,670	2	2012	1%	\$5,277	2014	1%	\$5,490	2016	1%	\$5,712	minor deficiencies that do not require replacement immediately, but that may be addressed in future replacement cycles, which are scheduled at three-year intervals. We have not scheduled replacement all of the sidewalk sections with scaled surfaces as they do not appear to pose a hazard at the present.
																However, replacement of some of the more severely scaled sections should be addressed with each replacement cycle as they will tend to deteriorate more quickly over time. We have scheduled bi-annual repairs to address hazards in a timely manner. Concrete repairs are scheduled to coincide with other
																concrete components to promote cost efficiencies.
_																
2.2	Concrete Curbs &	53,300	LF	\$31.00	1,652,300	2	2014	1%	\$17,191	2016	1%	\$17,885	2018	1%	\$18,608	The drivelanes and parking bays are lined with standard-profile, cast-in-place, concrete curbs. The curbs are generally in continuing good condition with a very minor number of deficient sections observed. As curbs continue to age, cracks, vehicle impact damage, and settlement should be anticipated. Bi-annual
	Guilers															repairs are scheduled to address replacements. Concrete are scheduled to coincide with other concrete components to promote cost efficiencies.

## Reserve Fund Plan for POTOMAC PLACE NEIGHBORHOOD RESERVES Mclean, Virginia

## COMPONENT DATA AND ASSET REPLACEMENT SCHEDULE TABLE 1 2012 Through 2031



									115								CAPITAL RESIRVE ANALYSTS, INC.
C	omporent wo.	Quari	ity Unit	or Measurement	Total As	SSET BASE	stad Service	s of Cycle life is	/acerr	ant Ast Cycle	Jule Test	tage of Replaceric	and Cycle	Chile Less	centage	of Realistern	www.masonreserves.com  800 -776 - 6980 Copyright © 1999 All rights reserved.  DISCUSSION
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		16	18
2.3	Aprons	27,900	SF	\$9.75	\$272,025	2	2012	1%	\$2,720	2014	1%	\$2,830	2016	1%	\$		Single and double concrete driveway aprons provide access to driveways and garages and provide the pedestrian surface at sidewalks. Most aprons appear to be in continuing good condition. Cracks and some settled sections were observed totaling approximately 306 square feet. Again, we observed many additional areas of minor deficiencies, which may not justify replacement near-term, but should be included in future replacement cycles. These occur generally where patches to minor damage were made in the past. Patching is not generally a long-term repair to concrete. Cyclic repairs are scheduled as full replacement at one time is not appropriate or anticipated. Concrete repairs are scheduled to coincide with other concrete components to promote cost efficiencies.
3 SI	TE FEATURES																
3.1	Light Poles & Fixtures	85	EA	\$2,200.00	\$187,000	30	2037	100%	\$306,793								Pre-finished Fiberglas reinforced plastic (FRP) light poles, generally 15' high, with carriage lantern fixtures provide illumination for the streets and common areas. They appear to be in generally good condition. These have been added as a new component since the previous report. The fixtures were not observed illuminated. No problems were reported with lighting.
3.2	Wood Fencing	440	LF	\$18.00	\$7,920	20	2013	100%	\$8,078	2033	100%	\$12,004					Standard wood fencing is installed in the woods at the Harps Court area property line. It is in poor condition. Management requested that we schedule near-term replacement.

# 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:  $\frac{1}{2}$ 

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	<b>Action</b> is an area provided for the Board to make notations as to action taken on each component.

## Reserve Fund Plan for POTOMAC PLACE NEIGHBORHOOD RESERVES Mclean, Virginia

## CALENDAR OF EXPENDITURES TABLE 2

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2012 Through 2031

			PRESENT COST	FUTURE COST	TOTAL ANNUAL	
VEAD	COMPONENT NO.	COMPONENT	2012	(INFLATED)	EXPENDITURES	ACTION
YEAR		COMPONENT	2012	(INFLATED)	EXPENDITURES	ACTION
1	2	3	4	5	6	7
2012			*****	<u> </u>	2012	
	1.1	Asphalt Restoration Project, Section 1	\$34,250	\$34,250	TOTAL EXPENDITURES	
	1.2	Asphalt Restoration Project, Section 2	\$72,300	\$72,300		
	1.4	Asphalt Restoration Project, Section 4	\$32,625	\$32,625		
	1.5	Asphalt Seal Coat	\$60,596	\$60,596		
	1.6 2.1	Asphalt Full-Depth Repair & Crack Filling Allowant Concrete Sidewalks	\$20,000 \$5,277	\$20,000 \$5,277		
	2.3	Concrete Driveway Aprons	\$2,720	\$2,720		
	2.3	Concrete Driveway Aprons	\$Z,1ZU	\$2,720	\$227,768	
2013					2013	
2013	3.2	Wood Fencing	\$7,920	\$8,078	TOTAL EXPENDITURES	
	0.2	Wood I choing	Ψ1,020	ψο,στο	\$8,078	
2014					2014	
	2.1	Concrete Sidewalks	\$5,277	\$5,490	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	\$16,523	\$17,191		
	2.3	Concrete Driveway Aprons	\$2,720	\$2,830		
		<u> </u>			\$25,511	
2015					2015	
	1.1	Asphalt Restoration Project, Section 1	\$137,000	\$145,385	TOTAL EXPENDITURES	
	1.2	Asphalt Restoration Project, Section 2	\$120,500	\$127,876		
	1.4	Asphalt Restoration Project, Section 4	\$30,813	\$32,698		
					\$305,960	
2016					2016	
	2.1	Concrete Sidewalks	\$5,277	\$5,712	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	\$16,523	\$17,885		
	2.3	Concrete Driveway Aprons	\$2,720	\$2,944	<b>\$20.544</b>	
0047					\$26,541	
2017					2017 NO EXPENDITURES	
2018					2018	
2010	1.5	Asphalt Seal Coat	\$60,596	\$68,240	TOTAL EXPENDITURES	
	1.6	Asphalt Full-Depth Repair & Crack Filling Allowand	\$50,000	\$56,308	TOTAL EXI ENDITORES	
	2.1	Concrete Sidewalks	\$5,277	\$5,942		
	2.2	Concrete Curbs & Gutters	\$16,523	\$18,608		
	2.3	Concrete Driveway Aprons	\$2,720	\$3,063		
			* , -	¥ = <b>7</b> = = =	\$152,162	
2019					2019	
					NO EXPENDITURES	
2020					2020	
	2.1	Concrete Sidewalks	\$5,277	\$6,182	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	\$16,523	\$19,359		
	2.3	Concrete Driveway Aprons	\$2,720	\$3,187		
					\$28,729	
2021					2021	
4					NO EXPENDITURES	
2022	2.4	One and Olderson	AC 077	A0 400	2022	
	2.1	Concrete Sidewalks	\$5,277	\$6,432	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	\$16,523	\$20,141		
	2.3	Concrete Driveway Aprons	\$5,441	\$6,632	\$33,206	
					<b>Φ33,200</b>	

## Reserve Fund Plan for POTOMAC PLACE NEIGHBORHOOD RESERVES Mclean, Virginia

# CALENDAR OF EXPENDITURES TABLE 2 2012 Through 2031

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			PRESENT COST	FUTURE COST	TOTAL ANNUAL	
YEAR	COMPONENT NO.	COMPONENT	2012	(INFLATED)	EXPENDITURES	ACTION
				, ,		
1	2	3	4	5	6	7
2023					2023	
2001					NO EXPENDITURES	
2024			444 544	450.050	2024	
	1.5	Asphalt Seal Coat	\$60,596	\$76,850	TOTAL EXPENDITURES	
	1.6	Asphalt Full-Depth Repair & Crack Filling Allowand	\$100,000	\$126,824		
	2.1	Concrete Sidewalks	\$5,277	\$6,692		
	2.2	Concrete Curbs & Gutters	\$16,523	\$20,955		
	2.3	Concrete Driveway Aprons	\$5,441	\$6,900	\$238,221	
2025					2025	
2023	1.3	Asphalt Restoration Project, Section 8	\$227,000	\$293,649	TOTAL EXPENDITURES	
	1.3	Asphalt Restoration Project, Section 8	\$227,000	\$293,649	\$293,649	
2026					2026	
2020	2.1	Concrete Sidewalks	\$5,277	\$6,962	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	\$16,523	\$21,802	TOTAL EXPENDITURES	
	2.3	Concrete Driveway Aprons	\$5,441	\$7,179		
	2.0	Concrete Briveway Aprons	Ψ5,441	Ψί,τίσ	\$35,943	
2027					2027	
2027					NO EXPENDITURES	
2028					2028	
	2.1	Concrete Sidewalks	\$5,277	\$7,244	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	\$16,523	\$22,683		
	2.3	Concrete Driveway Aprons	\$5,441	\$7,469		
		, , , , , , , , , , , , , , , , , , ,	. ,	. ,	\$37,395	
2029					2029	
	1.4	Asphalt Restoration Project, Section 4	\$181,250	\$253,794	TOTAL EXPENDITURES	
					\$253,794	
2030					2030	
	1.1	Asphalt Restoration Project, Section 1	\$171,250	\$244,587	TOTAL EXPENDITURES	
	1.2	Asphalt Restoration Project, Section 2	\$301,250	\$430,259		
	1.5	Asphalt Seal Coat	\$60,596	\$86,545		
	1.6	Asphalt Full-Depth Repair & Crack Filling Allowand	\$200,000	\$285,649		
	2.1	Concrete Sidewalks	\$5,277	\$7,536		
	2.2	Concrete Curbs & Gutters	\$16,523	\$23,599		
	2.3	Concrete Driveway Aprons	\$5,441	\$7,770		
					1,085,947	
2031					2031	
					NO EXPENDITURES	

# 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	<b>Total Asset Base</b> of all common capital assets included in the reserve fund with costs adjusted for inflation.
Column 3	<b>Beginning Reserve Fund Balance</b> is the reserve fund balance after all activity in the prior year is completed.
Column 4	<b>Annual Contribution</b> , 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 <b>7</b>	<b>Ending Reserve Fund Balance</b> 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 POTOMAC PLACE NEIGHBORHOOD RESERVES Mclean, Virginia

#### FUNDING ANALYSIS HYBRID APPROACH CASH FLOW METHOD TABLE 3



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Beginning Reserve Fund Balance:

Annual Contribution To Reserves:

Contribution Percentage Increase:

Annual Inflation Factor:

Annual Interest Income Factor:

In Dollars 411,692 96,001 3.00% 2.00% 3.00%

	iii Dollaro	111,002	00,001	0.0070	2.0070	0.0070
	TOTAL ASSET	BEGINNING RESERVE				ENDING RESERVE FUND
YEAR	BASE	FUND BALANCE	ANNUAL CONTRIBUTION	INTEREST INCOME	CAPITAL EXPENDITURES	BALANCE
1	2	3	4	5	6	7
2012	3,788,261	411,692	96,001	11,953	227,768	291,878
2013	3,864,026	291,878	98,881	10,368	8,078	393,049
2014	3,941,306	393,049	101,848	13,209	25,511	482,594
2015	4,020,132	482,594	104,903	11,404	305,959	292,943
2016	4,100,535	292,943	108,050	10,249	26,541	384,701
2017	4,182,546	384,701	111,292	13,526	0	509,519
2018	4,266,197	509,519	114,631	14,894	152,161	486,882
2019	4,351,521	486,882	118,069	16,745	0	621,697
2020	4,438,551	621,697	121,612	20,435	28,728	735,016
2021	4,527,322	735,016	125,260	24,410	0	884,686
2022	4,617,869	884,686	129,018	28,482	33,205	1,008,981
2023	4,710,226	1,008,981	132,888	32,868	0	1,174,738
2024	4,804,430	1,174,738	136,875	34,087	238,221	1,107,478
2025	4,900,519	1,107,478	140,981	31,203	293,649	986,014
2026	4,998,529	986,014	145,211	31,785	35,943	1,127,067
2027	5,098,500	1,127,067	149,567	36,734	0	1,313,368
2028	5,200,470	1,313,368	154,054	41,863	37,396	1,471,889
2029	5,304,479	1,471,889	158,676	43,228	253,794	1,419,998
2030	5,410,569	1,419,998	163,436	28,144	1,085,945	525,633
2031	5,518,780	525,633	168,339	18,748	0	712,720

STUDY PERIOD TOTALS

2,579,591 474,336 2,752,899

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.

#### Reserve Fund Plan for POTOMAC PLACE NEIGHBORHOOD RESERVES Mclean, Virginia

#### **FUNDING ANALYSIS COMPONENT METHOD - TABLE 4**

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Beginning Reserve Fund Balance:

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	In Dollars		411	,692																	
Component Number	COMPONENT	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
1 ASPHAI	LT COMPONENTS																				
1.1	Asphalt Restoration Project, Section 1	56,670	46,259	46,259	12,899	12,899	12,899	12,899	12,899	12,899	12,899	12,899	12,899	12,899	12,899	12,899	12,899	12,899	12,899	14,624	14,624
1.2	Asphalt Restoration Project, Section 2	62,665	40,687	40,687	22,691	22,691	22,691	22,691	22,691	22,691	22,691	22,691	22,691	22,691	22,691	22,691	22,691	22,691	22,691	25,725	25,725
1.3	Asphalt Restoration Project, Section 3	5,701	5,701	5,701	5,701	5,701	5,701	5,701	5,701	5,701	5,701	5,701	5,701	5,701	17,557	17,557	17,557	17,557	17,557	17,557	17,557
1.4	Asphalt Restoration Project, Section 4	20,321	10,404	10,404	14,573	14,573	14,573	14,573	14,573	14,573	14,573	14,573	14,573	14,573	14,573	14,573	14,573	14,573	15,174	15,174	15,174
1.5	Asphalt Seal Coat	28,789	10,369	10,369	10,369	10,369	10,369	11,677	11,677	11,677	11,677	11,677	11,677	13,150	13,150	13,150	13,150	13,150	13,150	14,809	14,809
	Asphalt Full-Depth Repair & Crack Filling Allowance	14,635	8,556	8,556	8,556	8,556	8,556	19,270	19,270	19,270	19,270	19,270	19,270	43,403	43,403	43,403	43,403	43,403	43,403	4,888	4,888
2 CONCR	ETE COMPONENTS																				
2.1	Concrete Sidewalks	4,264	2,660	2,768	2,768	2,879	2,879	2,996	2,996	3,117	3,117	3,243	3,243	3,374	3,374	3,510	3,510	3,652	3,652	3,799	3,799
2.2	Concrete Curbs & Gutters	2,574	2,574	8,666	8,666	9,017	9,017	9,381	9,381	9,760	9,760	10,154	10,154	10,564	10,564	10,991	10,991	11,435	11,435	11,897	11,897
2.3	Concrete Driveway Aprons	2,198	1,371	1,427	1,427	1,484	1,484	1,544	1,544	3,214	3,214	3,343	3,343	3,478	3,478	3,619	3,619	3,765	3,765	3,917	3,917
3 SITE FE	ATURES																				
3.1	Light Poles & Fixtures	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544
3.2	Wood Fencing	2,456	438	438	438	438	438	438	438	438	438	438	438	438	438	438	438	438	438	438	438
	ANNUAL COMPONENT CONTRIBUTION TOTALS	202,817	131,563	137,819	90,632	91,151	91,151	103,714	103,714	105,884	105,884	106,533	106,533	132,815	144,671	145,375	145,375	146,107	146,708	115,372	115,372
COMPON	IENT METHOD SUMMARY	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
	BEGINNING RESERVE FUND BALANCE	411,692	402,589	540,477	671,484	478,067	558,713	668,353	641,935	766,875	869,093	1,003,148	1,108,735	1,250,738	1,185,553	1,075,007	1,219,520	1,404,372	1,558,195	1,500,909	577,880
	PLUS ANNUAL COMPONENT CONTRIBUTION	202,817	131,563	137,819	90,632	91,151	91,151	103,714	103,714	105,884	105,884	106,533	106,533	132,815	144,671	145,375	145,375	146,107	146,708	115,372	115,372
	CAPITAL EXPENDITURES	227,768	8,078	25,511	305,959	26,541	0	152,161	0	28,728	0	33,205	0	238,221	293,649	35,943	0	37,396	253,794	1,085,945	0
	SUBTOTAL	386,741	526,074	652,785	456,157	542,677	649,864	619,906	745,649	844,031	974,977	1,076,476	1,215,268	1,145,332	1,036,575	1,184,439	1,364,895	1,513,083	1,451,109	530,336	693,252
	PLUS INTEREST INCOME @ 3.00%	15,848	14,403	18,699	21,910	16,036	18,489	22,029	21,226	25,062	28,171	32,259	35,470	40,221	38,432	35,081	39,477	45,111	49,800	47,544	19,469
	FULLY FUNDED RESERVE FUND BALANCE	402,589	540,477	671,484	478,067	558,713	668,353	641,935	766,875	869,093	1,003,148	1,108,735	1,250,738	1,185,553	1,075,007	1,219,520	1,404,372	1,558,195	1,500,909	577,880	712,720

TOTAL EXPENDITURES 2,752,899

**TOTAL CONTRIBUTIONS** 2,469,190

STUDY PERIOD 584,737 TOTAL INTEREST

AVERAGE ANNUAL CONTRIBUTION 123,460



# PHOTOGRAPHS WITH DESCRIPTIVE NARRATIVES





PHOTO #1 Although the Community Center parking lot was restored in 2007, this area is now in beginning failure, and requires fulldepth repairs. The new pavement elsewhere is in continuing good condition.



PHOTO #2 Folly Court, one of six streets that were fully restored in 2011, now appearing to be in likenew condition.



PHOTO #3 New crack appearing on older streets that were repaired and cracked filled in 2007. This will continue until the streets are restored.



PHOTO #4
While this area was crack filled in 2007, it is obvious that additional deflection is now present. Areas like this should be milled to the appropriate depth and replaced in the next pavement restoration.



PHOTO #5
Some older crack filling is still visible here, but note the extensive new cracking as this pavement reaches the end of its service life.



PHOTO #6
Here a 2007 extensive full-depth repair is present and holding up well. Note that there is little continuing radiating cracking on the perimeter of the patch. Also note the crack fill on the perimeter of the patch, which is the proper procedure and is often overlooked by pavers.



PHOTO #7
The Section 4 asphalt footpath is under water here. This could be considered a hazard, especially in freezing temperatures, when it will become ice.



PHOTO #8
Areas like this now require localized full-depth repair.
The material should be removed, new gravel base installed and the path repaved. Only about 13% of the system requires repairs at this time.



PHOTO #9
This is an example of typical tree root damage to footpaths. Eventually the heaves become tripping hazards and the roots must be removed before new pavement is installed.



PHOTO #10 This is the worst of only a few heaved sidewalk panels. This is an obvious tripping hazard requiring replacement near-term.



PHOTO #11 This crack is still quite tight and probably not at the point to justify the expense of replacement.



PHOTO #12 Concrete surface scaling is the result of many factors including ice melt chemicals. While unsightly, it is not usually problematic until the surface is deteriorated enough to become a potential tripping hazard.



PHOTO #13
This potential tripping hazard is located in a remote part of the pool deck. Pool deck repairs are scheduled in 2016 and this will be one of the deficiencies addressed at that time.



PHOTO #14
The monuments have always been considered permanent structures requiring periodic maintenance under operations. We observed a few highly fissile stones that are deteriorating and should be replaced along with minor mortar replacement on the top surface.



PHOTO #15 The pressure-treated timber retaining wall adjacent to the Community Center tennis court is continuing to deflect as evidenced by the reveal at the deadmen anchors. Due to location, this will be a difficult replacement. The structure should be capable of a few additional years of service, but should be monitored for movement.



PHOTO #16
The cracking at the
Community Center tennis
court has reappeared or
continues in spite of the
2007 engineered repairs
to the supporting masonry
retaining wall. The cracks
should be patched as part
of the next color coat
temporarily until the court
is fully restored in 2018.



PHOTO #17
The Section 4 tennis
court is in continuing
good condition with no
significant deficiencies
currently. Though the
color coat is older and
somewhat faded, it is still
serviceable with newly
applied striping.



PHOTO #18
The multi-purpose court was converted to a basketball court as part of a full restoration in 2011 including drainage improvements.



PHOTO #19
The asphalt shingle roofing appears to be in continuing good condition with no significant deficiencies observed.



PHOTO #20
The Community Center wood decking was replaced with composite decking in 2009.
Eventually, the pressure-treated wood joists supporting it will require replacement, but the decking may be reuseable at that time.



PHOTO #21 The condenser and air handler of HVAC Unit #3 was replaced in 2011. Its sister Unit #1 is still operating.



PHOTO #22 The 2007 recommended engineered repairs to the masonry retaining wall appear to have been successful.



PHOTO #23
Additional tuckpointing and masonry repairs/waterproofing of planters will be necessary on an on-going basis, and we have programmed the component accordingly.



PHOTO #24 The pool cover is aging and tired. We have scheduled replacement in 2013.