

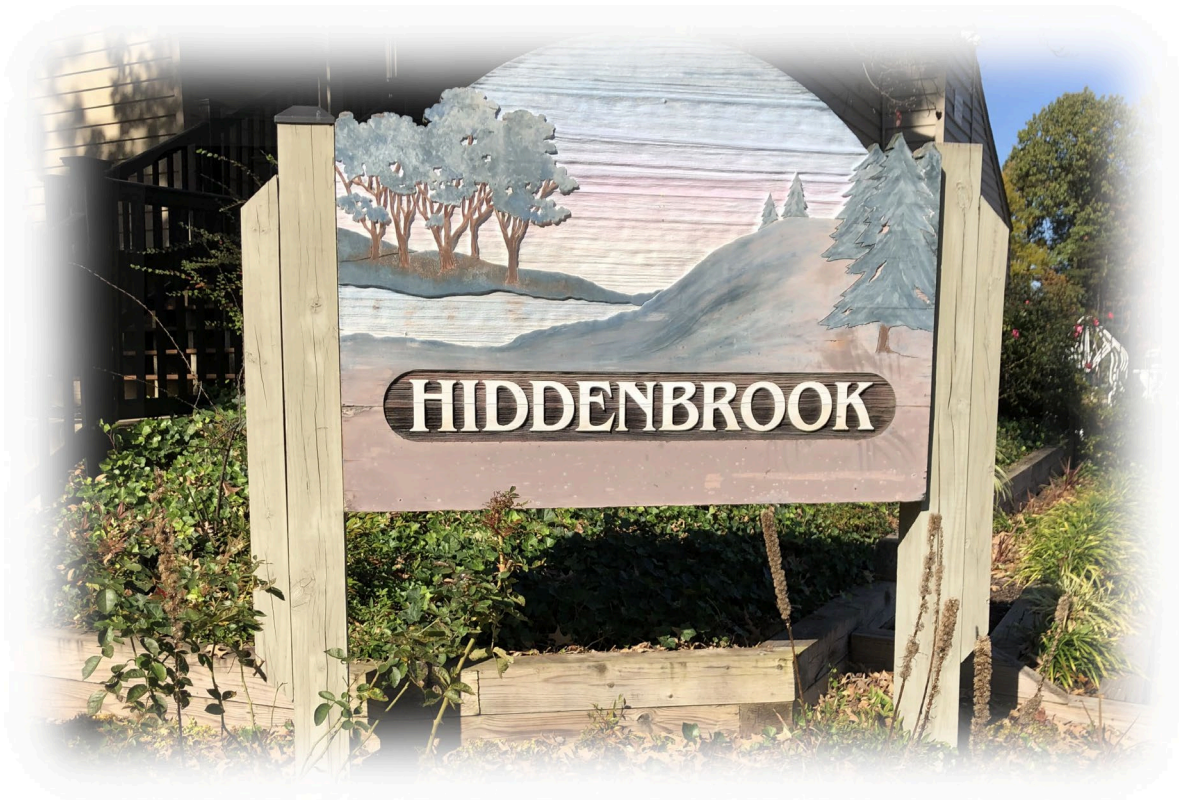


MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.



(Final Report, Revised May 10, 2021)
**Condition Assessment
&
Reserve Fund Plan Update
2021**

Hiddenbrook
Community Center
Herndon, Virginia



Prepared for:
The Board of Directors
&
Spectrum Property Management



MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.



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May 10, 2021

Ms. Lisa Cornaire, General Manager
Spectrum Property Management
754 Walker Road
Great Falls, Virginia 22066

RE: **CONDITION ASSESSMENT AND RESERVE FUND PLAN UPDATE 2020**
Hiddenbrook Homeowners Association
(Final Report, Revised May 10, 2021)
Herndon, Virginia
Project No. 9151

Dear Ms. Cornaire:

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

The Final Report reflects changes requested in your email from March 15, 2021.

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

Sincerely,

Mason & Mason Capital Reserve Analysts, Inc.

Levi K. Mason, R.S.
Vice President



James G. Mason, R.S.
Principal



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FOREWORD

PLEASE READ THIS FIRST

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

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

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

SUMMARY OF KEY ISSUES

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

The Summary of Key Issues presents a recapitulation of the most important findings of Hiddenbrook HOA'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 is understandable to a first-time reader.

Covid19 is impacting our economy in ways never experienced. And, we are only at the beginning, making it virtually impossible to assume and project any relevant inflation and interest income for reserve plans. As we move forward, we may be able to see a pathway and some stability, but in the interim M & M is reducing inflation to 1.5% and interest income to .5%. Generally speaking, this will reduce reserve contributions because inflation is a very power factor. As common property associations experience higher delinquency rates and budgeting difficulties, we anticipate that reductions in reserve contributions may provide welcome relief. The lowering of these factors is conjecture and may not reflect the coming reality but will certainly help in the near-term months and possibly years. Pricing for capital repair and replacements will be unstable as contractors experience lower energy costs and higher competition, but also supply chain disruptions and labor problems. With all of this uncertainty, it is highly advisable to administratively update reserve plans frequently during this evolving crisis. Hopefully, time will illuminate the way forward.

Hiddenbrook has been closely following the reserve plan established in 2015. It was reported at that time that the Board of Directors intended to fully fund reserves and accomplish many of the maintenance and replacement projects that had been deferred over the years. Our field evaluation and subsequent financial analysis reveals that the BOD has been very effective and the overall condition and financial position of Hiddenbrook has greatly improved. However, due to COVID-19 and the closure of the pool for the 2020 season, the annual contributions to reserves for 2020 fell to only \$20,000 from \$71,829 in 2019. Management reported that the 2021 contributions are expected to be only \$28,781. Additionally, it was reported that moneys in high interest CDs are expected to yield \$7,800 in 2021, but that interest is expected to fall to less than 1% (we have used .5% in our calculations) after 2021. This report assumes that the pool facility will resume normal operations in 2022 and the community and the Hiddenbrook Swim & Tennis Club and the Hiddenbrook HOA will resume normal funding. Despite these setbacks, Hiddenbrook is well funded, and we do not anticipate either budget shortfalls or the need to defer maintenance or replacement projects.

Analyzing the capital reserves reveals that:

- The fund is approximately **97%** funded through 2020, **See Paragraph 3.1**. Our goal is to become fully funded by the end of the 20-year period (2040).

To achieve this goal, the Board should:

- Plan on a **2021** contribution of **\$28,781** with interest income of **\$7,800**.
- Increase the annual contribution in **2022** from **\$28,871** to **\$63,321**, followed by annual adjustments of **1.5%** to reflect inflation thereafter.
- This represents a **2022** adjustment from **\$6.10** to **\$13.42** (a net adjustment of **\$7.32**) per residential unit, per month (based on **393** units).

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

VISUAL EVALUATION METHODOLOGY

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

The field survey or condition assessment is visual and non-invasive. We do not 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 does not include an evaluation of moisture penetration, mold, indoor air quality, or other environmental issues. While we may identify, pedestrian hazards observed during the course of the field survey, this report should not 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 is 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: Hiddenbrook HOA is a single-family home community of 393 residences located west of Dranesville Road in Herndon, Virginia. Hiddenbrook Community Center, located at 1508A Sadlers Wells Drive, consists of single two-story masonry and wood frame community building and bathhouse, two pools, a tot lot, and two tennis courts. The facility was completed in 1974 and provides a management office for Hiddenbrook Homeowners Association. The pool, bathhouse, and tennis courts, while owned by the Association, are the shared financial responsibility of Hiddenbrook Swim & Tennis Club and the Hiddenbrook HOA. The paved entrance and driveways include concrete curbs and gutters, concrete sidewalks, and four off street parking bays providing 91 spaces.

We are providing the Condition Assessment and Reserve Fund Plan Update based on Proposal Acceptance Agreement No. 9151 dated July 23, 2020. 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 Homeowners 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 the Management Company or the Association, and we therefore do not have any conflicts of interest that would bias this report. Information provided by Management is deemed reliable. This report is not intended to be an audit or a forensic investigation. This report is not a mandate but is intended to be a guide for future planning.

Mason & Mason provided a Level I Condition Assessment and Reserve Fund Plan for Hiddenbrook in 2002, a Level II Update in 2007, an Administrative Update in 2011, and a Level II Update in 2016. This report is an additional Level II Update 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.

Levi K. Mason, R. S. conducted the field evaluation for this report on November 6, 2020. The sky was clear, and the temperature was approximately 65 degrees F. Precipitation had not occurred for several days prior to the site visit. The pavements, walkways, and grounds were generally dry and clean of debris.

1.2 Principal Findings: The common assets appear to be in overall very good condition. We understand that \$342,457 has been spent on various repair and replacement projects since the previous evaluation. Some of the large scale projects include:

- New pools stairs
- Major tennis court repair and color coating project
- Asphalt repairs, seal coating, and rejuvenation
- Full security camera replacement
- Pool white coating, coping and tile replacement
- New marquee sign
- Full bathroom/shower room renovation
- Various plumbing repairs
- The replacement of the asphalt shingle roof
- The replacement of the siding
- The replacement of the remaining wooden decks and railings with composite materials

The asphalt throughout the parking lot is in improved condition having been crack filled and treated with rejuvenator. The deflected area in front of the dumpster has been replaced with a concrete pad, which will support the weight of the trash trucks. The concrete sidewalks and the curbs and gutters are in excellent condition and precision cutting was recently accomplished. No deficiencies were observed. The pool deck appears to be in serviceable condition. We have reduced the area slightly to reflect the addition of the pool entrance stairs. The site features are in generally very good condition. The tennis courts were repaired, and color coated, and a small retaining wall was added behind and below the court. This has been added to the pressure-treated timber retaining wall line item. The pressure-treated retaining walls have also been replaced. The tot lot is in serviceable, but dated condition and has been scheduled for replacement after a few more years of service. At Management's request we have increased the budget and frequency of tree related projects as the annual expenditures have outpaced the original budget. The clubhouse is also in improved condition with fully replaced roofing siding and deck boards. The bathrooms have been renovated and the vinyl tile has been replaced with ceramic tile. The pool has been modified with new entrance steps and was white coated, all coping stones were replaced, and the racing and waterline tile has all been replaced. A pool evaluation suggests that the full renovation while still necessary will not be required for many years. We have scheduled this project late-term based on the information provided. The pool pumps and equipment were reported to be in good operating condition though these systems had been winterized and were not in operation during our evaluation.

Currently, the reserve fund requires a reasonable single increase to get to the point where annual inflationary adjustments will maintain fully funded status through the end of twenty years.

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 17, 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. Substantially higher inflation rates have not materialized since then. It appears that the Covid 19 impact on the economy will continue to hold inflation down, so we are using a 1.5% annual rate of inflation in our calculations. This 20-year average reflects a hypothetical 0% rate in the first year progressing to a hypothetical 3% in the 20th year. Interest income is expected to drop as Federal Reserve rates respond to poor economic conditions, so we are using a .5% annual rate of return on investments in our calculations. This 20-year average reflects a hypothetical 0% rate in the first year progressing to a hypothetical 1% in the 20th year. However, unlike reserves, interest income is taxable, which may reduce the net gain even further. Annual Administrative Updates are increasingly important to respond to rapidly changing conditions during the crisis. 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.

2.1 Calculation Basics: The Association is on a calendar fiscal year. Management reported that the un-audited reserve fund balance, including cash and securities, as of **December 31, 2020**, was **\$467,386**. We have used **1.5%** annual inflation and **.50%** annual interest income in our calculations. The total expenditures for the twenty-year period for both the **Cash Flow Method** and **Component Method** are projected to be **\$1,337,765**.

2.2 Funding Analysis, Cash Flow Method Hybrid Approach (Table 3): The 2021 annual contribution to reserves has been set at **\$28,781**. **However, we understand that this is a one-year only contribution, which is substantially lower than typical due to the 2020 pool closure in response to COVID-19. In 2022 the contribution should be set at \$63,321** with a presumed **1.5%** annual increase. At this level, the total for all annual contributions for the twenty-year period would be **\$1,408,966**, and the total interest income is projected to be **\$70,122**. **The fully funded balance in 2040 is \$608,709.**

2.3 Funding Analysis, Component Method (Table 4): This method of funding would require variable annual contributions, averaging **\$70,541** over the twenty-year period. The total for all annual contributions would be **\$1,410,822**, and the total interest income is projected to be **\$68,266**. **The fully funded balance in 2040 is \$608,709.** The Component Method model considers the current reserve fund balance in computing individual component contributions for current cycles.

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 does not 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 does not 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 do not 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 increases to reach the fully funded goal at the end of the 20-year period. This has the added effect of establishing a funding plan that addresses inflation. The contribution in the first year, adjusted for inflation, is equal to the contribution in the last year, based on inflated dollars (future value of money). This approach will also allow underfunded Associations the time to catch up, mitigating undue hardships. It balances the risk of temporary underfunding with the benefit of consistent predictable increasing contributions. The combination of the Component and Cash Flow Methods (Hybrid Approach) provides the advantages of both methods.

4. TYPES OF RESERVE STUDIES

4.1 Full Reserve Study, Level I, the analyst develops a component inventory and condition assessment which is based upon on-site visual observations, and is the basis for the estimated remaining-useful-life of the components as well as their replacement cost. This information is used to develop the Financial Analysis which includes the fund status and funding plan.

4.2 Full Update, With-Site-Visit, Level II, the analyst conducts an onsite verification of the component inventory included within the study being updated (not quantification) as well as performing a condition assessment), which is the basis for the estimated remaining-useful-life of the components and their replacement costs. This information is used to develop the Financial Plan which includes the fund status and funding plan.

4.3 Administrative Update, Level III, the analyst updates the remaining-useful-life of the components based on information provided by Management and not condition as a site visit is not performed. The replacement costs and other pertinent information are also updated. This information is used to develop the Financial Plan which includes the fund status and funding plan.

4.4 Residential and Commercial Development Services, before construction an analyst develops budget estimates based on design documents such as the architectural and engineering plans, and developer founding documents.

5. RESERVE PROGRAMMING

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

5.1 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.

5.2 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 does not include inflation is a 1-year plan, and any data beyond that first year will not reflect reality.**

5.3 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.

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

5.5 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.

5.6 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.

5.7 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 should not 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 does not provide any relative value or utility.

5.8 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.

5.9 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.

5.10 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.

6. 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.

7. PREVENTIVE MAINTENANCE

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

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

7.1 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.

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

7.3 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.

7.4 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 edgemoil and overlay. Generally, this type of repair should not be required for approximately five years after an edgemoil and overlay project.

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

7.6 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.

7.7 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.

7.8 Concrete Steps: Concrete steps should be replaced when cracking, deterioration, or settlement occurs. Cracks, which occur at the intersection of treads and risers, should be filled with an appropriate sealant to prevent water infiltration.

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

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

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

7.12 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 long-term 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 $\frac{3}{4}$ -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.

7.13 Wood Fence: 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.

7.14 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.

7.15 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.

7.16 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.

7.17 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.

7.18 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.

7.19 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 6 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.

7.20 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.

7.21 Pool Sealant: The joint between coping tiles and pool deck should be sealed with a flexible sealant to prevent water infiltration behind the pool structure. Over time, this sealant deteriorates, and water infiltration can cause damage to the pool structure during freeze/thaw cycles. Sealant should periodically be removed and replaced to prevent damage, and annual inspections and repairs should be performed between replacements. Sealant should be applied when coping stones are replaced or re-bedded. Other signs of problems include loose or missing mortar between the coping stones and between the coping stones and the pool structure below.

7.22 Pool Covers: Pool covers help extend the life of the white coat by preventing seasonal damage and discoloration, which may require acid treatments to maintain appearance.

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

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** **Total Asset Base** 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** **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 1st 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** **2nd 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** **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** **Cycles, Percentage, and Cost** repeat as itemized above. Although not shown on the tables, Through **16** the cycles continue throughout the study period and beyond.
- Column **18** **Discussion** is the description and observed condition of the component and the methodology employed in the decision-making process. Includes the photo reference, **(Photo # 1, #2, etc.)** and Maintenance Protocol reference numbers **(7.1, 7.2 etc.)** if applicable.

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Component No.	Component	Quantity	Unit of Measurement	Unit Cost	Total Asset Base	Typical Service or Cycle Life in Yrs	1st Cycle Year	Percentage of Replacement	Cost For 1st Cycle	2nd Cycle Year	Percentage of Replacement	Cost For 2nd Cycle	3rd Cycle Year	Percentage of Replacement	Cost For 3rd Cycle	DISCUSSION
1 ASPHALT COMPONENTS																
1.1	Asphalt Restoration Project	4,160	SY	\$12.50	\$52,000	20	2025	100%	\$55,191	2045	100%	\$74,334				The asphalt pavement serving the community center was overlay restored in 2007 by Espina Paving, Inc. and appears to be conforming to typical aging patterns. A full service life of the pavement is dependent on preventative maintenance being performed. Restoration includes edgemilling and overlay with 1-1/2" new compacted asphalt. Core sampling should be used to determine the depth and condition of the sub-base and pavement prior to restoration. Costs include striping, but not replacement of any inadequate sub-base.
1.2	Asphalt Seal Coat	4,160	SY	\$2.02	\$8,403	5	2030	100%	\$9,608	2035	100%	\$10,351	2040	100%	\$11,151	The pavement rejuvenation coating was accomplished in 2020. Seal coating/rejuvenator may help prevent water infiltration into the sub-base through micro-cracks, but is largely a cosmetic issue. To help improve curb appeal after repairs, we have scheduled seal coating projects generally every six years, except in the year of the pavement restoration project when it is not necessary. Crack filling and full-depth repairs should be completed prior to application to achieve maximum benefit from the seal coating. Seal coating projects include re-striping.
1.3	Asphalt Full-Depth Repair & Crack Filling Allowance	1	LS	\$9,900.00	\$9,900	5	2025	100%	\$10,507	2030	25%	\$2,830	2035	50%	\$6,097	We observed a significant amount of filled cracking (about 4,200 l.f.) and no deflected asphalt as the previously identified area of failure has been replaced with a concrete pad. We have not scheduled further repair projects until the restoration project. Full-depth repairs and crack filling are scheduled every five years throughout the study period, including the year of the asphalt restoration projects.
2 CONCRETE COMPONENTS																
2.1	Concrete Sidewalks	4,732	SF	\$9.50	\$44,954	5	2032	6%	\$3,177	2037	3%	\$1,711	2042	3%	\$1,844	Concrete sidewalks throughout the community center site are generally 4' wide with a few larger sections of concrete. Sidewalk condition is generally good with no significantly cracked or heaved sections. We understand that all tripping hazards have been recently addressed with precision concrete cutting. Severely scaled sections will tend to deteriorate more quickly over time and should be replaced in each replacement cycle. Cyclic repairs are scheduled, as full replacement at one time is not appropriate or anticipated. Concrete repairs are scheduled to coincide with work on other concrete components to take advantage of economies of scale in packaging concrete restoration work. The Board should be aware that repairs to small quantities of concrete may be more costly because of the difficulty of attracting competitive bids for small projects, which may not meet contractor minimums. Any trip hazards or hazardous surface deficiencies should be addressed as soon as practicable to prevent personal injury.
2.2	Concrete Curbs & Gutters	2,052	LF	\$36.00	\$73,872	5	2022	4%	\$2,999	2027	2%	\$1,615	2032	2%	\$1,740	The driveways and some parking bays are lined with standard-profile, cast-in-place, concrete curbs. The previously identified approximately 102 linear feet of curbs that were differentially higher than the adjacent concrete sidewalk were successfully addressed with concrete cutting, and we did not identify any other significant deficiencies. 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. Precision concrete cutting may be a cost effective alternative to the replacement of the curb and gutter or adjacent sidewalk panels. Casting a topping slab on to of the sidewalk is not a good alternative to addressing the height differential.
2.3	Concrete Steps	62	LF	\$100.00	\$6,200	10	2027	41%	\$2,780	2037	59%	\$4,642	2047	58%	\$5,296	Cast-in-place concrete steps are constructed at the front and rear entrances to the building and at grade differentials. The front steps have been replaced and no deficiencies were observed. Repairs are scheduled to coincide with other concrete components to promote cost efficiencies.
2.4	Concrete Pool Deck	9,338	SF	\$10.50	\$98,049	5	2022	5%	\$4,976	2027	5%	\$5,361	2032	5%	\$5,775	The pool deck is cast-in-place concrete on grade and is generally in good condition. Some minor cracking in the deck surface was observed but we did not identify any issues requiring immediate attention. 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. Any settlement or surface-defect trip hazards should be repaired as soon as observed to prevent personal injury.
2.5	Concrete Dumpster Slab	1	SF	\$8,700.00	\$8,700	20	2036	100%	\$10,877	2056	100%	\$14,650				A cast in place concrete slab has been installed in front of the dumpster and provides the bearing surface for trash trucks, which will prevent asphalt failure in that area. Management provided the cost of the project. Due to the design and purpose of this slab when cracking occurs, it is unlikely that any repairs will be effective. Therefore, we have assumed full replacement at the end of its service life.
3 SITE FEATURES																
3.1	Entrance Signs	1	LS	\$10,900.00	\$10,900	20	2027	40%	\$4,767	2037	60%	\$8,299	2042	40%	\$5,960	A painted wood message board with acrylic lens and a painted, carved wood name sign is constructed at the entrance to the community center parking lot. We understand that the message and sign boards were recently replaced, and Management provided the cost for the replacement. We have updated the line item value accordingly. Another carved wood sign is installed on 6" by 6" painted posts at the front of the building. It appears to be in continuing good condition. The projected service life will be dependent on periodic preventative maintenance being performed such as re-painting.
3.2	Storage Shed	1	EA	\$2,000.00	\$2,000	15	2027	100%	\$2,187	2042	100%	\$2,734				Management reported the painted T1-11 plywood utility shed with composite shingle roofing was purchased from Lowe's in 2012. This shed is the responsibility of the HOA. The second shed belongs to the Swim & Tennis Club and has been removed from this study.
3.3	Retaining Walls	1	LS	\$5,332.00	\$5,332	20	2036	100%	\$6,666	2056	100%	\$8,978				Small pressure-treated wood timber retaining walls are constructed at the grade differentials adjacent to the community center building, which provide planter boxes for landscaping. They were replaced in 2016. Management provided the cost of the project, which was used as a benchmark in this report. Additionally, we have included a small masonry retaining wall constructed along the southeastern side of tennis court.

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3.4	Perimeter Wood Fencing	1,110	LF	\$14.84	\$16,472	20	2031	29%	\$5,544	2034	71%	\$14,193	2051	100%	\$25,748	6'-high, pressure-treated wood fencing is constructed at the east, west, and portions of the south perimeter of the facility. The fencing appears to be in overall good condition. Management reported 322 linear feet was installed in 2011, and approximately 788 linear feet was replaced in 2014. Throughout the life of the fencing, any deteriorated or missing boards should be replaced to achieve a full service life.
3.5	Tot Lot & Outdoor Furniture Allowance	1	LS	\$35,000.00	\$35,000	20	2023	100%	\$36,058	2043	100%	\$48,565				The tot lot is equipped with pressure-treated wood borders, a painted metal post swing set, two spring toys, two vinyl coated metal benches, one vinyl coated picnic table, one wood and metal picnic table, two new pet waste stations, and a painted metal, square tubular metal post play module with vinyl coated metal steps and platforms, painted metal climbing equipment and rails, plastic slides and a plastic gazebo roof. The equipment appears to be in serviceable condition. However, Management requested a replacement date of 2023. Frequent, periodic safety checks of all components should be conducted to prevent personal injury. Replacement costs are based on replacement with U.S. Consumer Product Safety Commission (CPSC)-compliant play modules.
3.6	Tot Lot Mulch	1	LS	\$3,075.00	\$3,075	2	2021	100%	\$3,075	2023	100%	\$3,168	2025	100%	\$3,264	Management reported that the mulch was last replaced in 2019 for a cost of \$2,000 and prior to that, in 2017 for \$3,075. To be prudent, we have used the higher cost in our replacement calculations.
3.7	Tennis Court Restoration Project	1	LS	\$28,750.00	\$28,750	20	2030	100%	\$32,872	2055	100%	\$47,696				The tennis courts were restored in 2001 and were repaired and color coated in 2020. We have kept the restoration schedule since the court is nearing 20-years old and nearing the end of its statistical service life. Since net post damage is the most common type of problem, 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. The full service life of the tennis courts is dependent on preventative maintenance being performed.
3.8	Tennis Court Color Coat	2	EA	\$8,955.00	\$17,910	5	2026	100%	\$19,294	2030	100%	\$20,478	2035	100%	\$22,061	The tennis courts were crack repaired and color coated in 2020 for a cost of \$17,910 and the courts appear to be in good condition though the extent of the repairs could not be determined. Tennis court color coat helps to seal the court surface and may help to prevent water infiltration. It generally has a service life of approximately five years.
3.9	Tennis Court Benches	4	EA	\$600.00	\$2,400	10	2030	100%	\$2,744	2040	100%	\$3,185	2050	100%	\$3,696	The tennis court benches appear to be in continuing good condition.
3.10	Tennis Court Fencing	660	LF	\$24.00	\$15,840	30	2030	100%	\$18,111	2055	100%	\$26,279				Ten-foot-high, vinyl-coated chain link fencing is installed around the perimeter of the tennis courts, which is scheduled to be replaced coinciding with the full court restoration project.
3.11	Tree Trimming, Removal, & Replacement Allowance	1	LS	\$5,000.00	\$5,000	2	2022	100%	\$5,075	2025	100%	\$5,307	2028	100%	\$5,549	Due to the age of the property, the site has many mature trees. In later years, trees require trimming to prevent damage to adjacent structures and components. Also, occasionally trees must be removed due to damage, disease, or if they outsize their location. Management requested that the budget be increased to \$5,000 from \$4,000 and that project frequency be increased from 3 years to 2 years.
3.12	Storm Water Drainage System Allowance	1	LS	\$7,500.00	\$7,500	10	2026	100%	\$8,080	2036	100%	\$9,377	2046	100%	\$10,882	Storm water drainage is provided by concrete curb drop inlets and underground structures. Though storm water drainage systems are a long life component and catastrophic failure is not anticipated, it is prudent to plan for localized repairs and repairs to ancillary damage as the system ages. This category may also be used to address localized erosion issues. Management requested that the budget be maintained but the frequency be changed from 7 years to 10 years.
4 COMMUNITY CENTER BUILDING																
4.1	Re-Roofing Projects	2,970	SF	\$4.69	\$13,929	20	2037	100%	\$17,676	2057	100%	\$23,807				The 6/12 pitched roof has architectural grade composite shingles. Ventilation is achieved through soffit vents and gable vents. The roof is a third cycle replacement accomplished in 2017. Management provided the price for the project, which was less than predicted. Pre-finished aluminum gutters and downspouts are installed at all proper roof terminations. Downspouts are directed away from building foundations with flex tubing. Re-roofing projects include replacement of shingles, deteriorated sheathing, flashing and gutters and downspouts.
4.2	Wood Siding & Trim	1,908	SF	\$7.20	\$13,738	40	2027	25%	\$3,755	2037	100%	\$17,433	2047	50%	\$10,116	The siding and trim was replaced in 2017 for a cost of \$13,750. The installation appears to be very good and the siding should provide a long service life.
4.3	Glass French Doors	6	EA	\$4,779.00	\$28,674	25	2038	100%	\$36,933	2063	100%	\$53,587				Management reported that the six original sliding-glass doors were replaced with high-end French doors in 2013. Management provided the cost for the project at that time. The doors appear to be in continuing good condition with no problems reported. We have scheduled the replacement of the doors after a typical statistical service life.
4.4	Door Allowance	23	EA	\$675.00	\$15,525	40	2027	20%	\$3,395	2032	20%	\$3,658	2037	20%	\$3,940	This category includes all exterior and interior doors of the community center building. All six lower level exterior doors were replaced with fiberglass doors. We have budgeted an allowance to address replacement of damaged or deteriorated doors throughout the study period.
4.5	Split-System Heat Pump	1	LS	\$13,380.00	\$13,380	15	2030	100%	\$15,299	2045	100%	\$19,127				A Lennox fourth cycle replacement, split-system heat pump installed in 2015 provides heating and cooling for the community center building. The replacement Lennox air handler is located on the ground floor level and is a Model CBX32-060-230-6-06. The condensing unit is a Lennox Model 14HPX-060-230-19 located adjacent to the main entrance. The refrigerant lines do not appear to have been replaced. No problems were reported.

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4.6	Decks & Railings	1	LS	\$20,493.00	\$20,493	20	2034	25%	\$6,217	2039	75%	\$20,093	2044	50%	\$14,431	There are four wood decks totaling 730 square feet with 28 steps and 213 linear feet of railings. All decks have been replaced with Trex, railings on the front elevation have been replaced with vinyl, and the rear elevation has composite railings. All decks and posts appear to be in excellent condition.
4.7	Kitchen Refurbishment Project	1	LS	\$10,000.00	\$10,000	35	2045	100%	\$14,295							This category includes the wall-mounted and base-mounted millwork, a refrigerator, a range and hood, a dishwasher and a stainless steel sink. We understand that the kitchen was updated in 2012 for a cost of \$8,550 but the appliances were not replaced at that time. Since the previous evaluation, the refrigerator, stove, and microwave have been replaced.
4.8	Office Equipment & Furnishings Allowance	1	LS	\$1,500.00	\$1,500	10	2021	100%	\$1,500	2026	100%	\$1,616	2031	100%	\$1,741	This category includes the computers in the management office and lifeguard office, the desk, files, fax machine, stacking chairs, and folding tables of the community room. At Management's request we have scheduled the replacement of some of the more worn equipment and furnishings.
4.9	Building Lighting & Electrical Allowance	1	LS	\$34,000.00	\$34,000	35	2027	25%	\$9,294	2032	25%	\$10,013	2037	25%	\$10,786	This category includes the wall-mounted fixtures, ceiling-mounted and recessed incandescent and fluorescent fixtures, exit lights, emergency lights, exhaust fan, a hanging globe light, ceiling fans (new in 2017), and wall heaters of the upper level of the clubhouse; the exterior carriage fixtures and porch lights, and security lighting of the building exterior; and the site light poles and fixtures. We have increased the budget to include the additional square tubular light pole with three security fixtures and four new building-mounted metal halide fixtures. Most lighting appears to be in good condition. We have scheduled replacement projects at five-year intervals, but replacements should occur as necessary. Replacement timing and cost is generally discretionary.
4.10	Carpeting	155	SY	\$40.94	\$6,346	10	2027	100%	\$6,939	2037	100%	\$8,053	2047	100%	\$9,345	The carpet of the meeting room is commercial-grade, which was installed in 2017. The cost is based on the actual replacement project. Replacement cost and timing is generally discretionary.
4.11	Tile Flooring	923	SF	\$10.00	\$9,230	25	2026	80%	\$7,955	2034	20%	\$2,240	2044	80%	\$10,399	The flooring of the entrance, restroom, and kitchen and portions of the lower level consists of various types of floor tiles. The tiles appear to be in serviceable condition with no significant deterioration observed.
4.12	Shower Room Finishes	1	LS	\$47,386.00	\$47,386	20	2047	100%	\$69,786							Management reported that a major renovation was accomplished in 2017 and reported that the cost of the project was \$47,368, exceeding the projected cost provided by the board in 2015 of \$20,000. The finishes throughout appear to be well executed and in excellent condition.
4.13	Surveillance & Security Systems Allowance	1	LS	\$3,000.00	\$3,000	5	2030	100%	\$3,430	2035	100%	\$3,695	2040	100%	\$3,981	We understand that major upgrades to the surveillance system have been conducted over past years. The current system has an asset value of approximately \$12,816. Management requested an allowance to address periodic system replacements now that the system has been fully upgraded. This category may also be used for the installation/replacement of interior/exterior security lighting, area lighting, door locks, alarm system, automated security system, or other components related to surveillance/security related needs.
5 POOL FACILITY																
5.1	Pool Restoration Project	6,655	SF	\$40.00	\$266,200	30	2036	100%	\$332,812	2066	100%	\$520,212				The swimming pools are in-ground, cast-in-place concrete structures. The main pool underwent a partial restoration project in 2006 during which the coping, waterline tiles, and approximately 2' of pool shell gunnite were replaced. Prior to that in 2003, the pool plumbing and perimeter pool deck were replaced. Management reported that the pool had \$73,500 worth of repairs and white coat in 2019. This included the replacement of race lane tiles, waterline tiles, coping stones, and white coat. Additionally, new steps were added for a cost of \$34,000. It was reported that the pool structure is in good condition and, at Management's request, we have postponed the renovation project by 16 years. It is prudent to plan for another structural renovation now because of the large expense involved if required.
5.2	Pool White Coat	6,655	SF	\$7.49	\$49,846	10	2028	100%	\$55,321	2046	100%	\$72,324				The pool white coat was replaced in 2013 at a reported cost of \$43,500. The pool was again coated in 2019 but the cost of the project was not isolated from the related work performed at that time. We have, therefore, used the prior cost and applied an inflationary adjustment. Replacement is scheduled after a typical service life. 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 seven years. No deficiencies were observed.
5.3	Pool Coping	471	LF	\$32.00	\$15,072	4	2040	100%	\$20,000	2060	100%	\$26,937				Standard cast stone bullnose coping is installed around the perimeter of the pools, which was replaced in 2019. The pool was closed for the season and was not observed. We have scheduled an allowance throughout the study period to address replacements of cracked, loose, or "hollow" tiles and to investigate and possibly repair the skimmers. Diligent maintenance of the coping and the soft joint sealant will prevent water infiltration behind the pool shell, which, if not controlled, will cause freeze/thaw damage.
5.4	Pool Fencing	1	LS	\$53,227.00	\$53,227	30	2034	100%	\$64,594	2064	100%	\$100,965				474 linear feet of painted, six-foot-high, aluminum picket fencing was installed at the perimeter of the pool deck in 2004. 173 linear feet of four-foot-high picket fencing separates the wading pool and the picnic area from the main pool. The fencing appears to be in continuing good condition.
5.5	Pool Perimeter Equipment	1	LS	\$33,310.00	\$33,310	20	2036	100%	\$41,645	2066	100%	\$65,095				Pool perimeter equipment consists of three fixed lifeguard stands, five stainless steel ladders, one stainless steel handrail, and a diving board. The category has been updated to include the water slide, which was installed in 2012 for a cost of \$21,310. We understand that the original stairs were replaced in 2016 for a cost of \$12,453. They are scheduled for replacement coinciding with the pool restoration project. However, we understand that periodic replacements of individual components have occurred on an as needed basis and that full replacement during the restoration may not be necessary.

Reserve Fund Plan for
HIDDENBROOK HOA
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COMPONENT DATA AND
ASSET REPLACEMENT SCHEDULE
TABLE 1
2021 Through 2040



The cells within these Excel spreadsheets contain proprietary code and are intended only for the client and its management. Unauthorized use of the formulae for other clients or other purposes is strictly forbidden and will be

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	DISCUSSION
Component No.	Component	Quantity	Unit of Measurement	Unit Cost	Total Asset Base	Typical Service or Cycle Life in Yrs	1st Cycle Year	Percentage of Replacement	Cost For 1st Cycle	2nd Cycle Year	Percentage of Replacement	Cost For 2nd Cycle	3rd Cycle Year	Percentage of Replacement	Cost For 3rd Cycle	18
5.6	Pool Furniture Allowance	1	LS	\$15,600.00	\$15,600	10	2022	100%	\$15,834	2032	100%	\$18,376	2042	100%	\$21,326	This category includes aluminum-frame and vinyl webbing lounges, chairs, and tables, all of several types, large and small umbrellas, wood and metal picnic tables, wood picnic tables, and wood benches. We understand that the furnishings were replaced in 2014 by the Swim & Tennis Club. We have budgeted an allowance 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.
5.7	Main Pool Pump & Filters	1	LS	\$20,000.00	\$20,000	15	2030	100%	\$22,868	2045	100%	\$28,590				The main pool is served by a Baldor Reliance, 15hp metal pump and strainer assembly and is filtered by five Triton 36" TR-140C, permanent media filters. We understand that the pump was replaced in 2016 for a price of \$4,980.
5.8	Wading Pool Pump & Filter	1	LS	\$2,100.00	\$2,100	10	2030	100%	\$2,401	2040	100%	\$2,787	2050	100%	\$3,234	The wading pool is served by a Pac Fab, plastic pump and strainer assembly and is filtered by one Triton 24" TR-60, permanent media filter. No records of replacement were available.
5.9	Pool Chlorinators	1	LS	\$1,725.00	\$1,725	10	2024	100%	\$1,804	2034	100%	\$2,093	2044	100%	\$2,429	The pool has two chemical feeders, which were replaced in 2009 along with a CAT controller and an acid feeder, which were replaced in 2014. All four of these components are in good operating condition, but do require occasional maintenance, which is accounted for out of the annual operational budget.
5.10	Water Heater	1	EA	\$6,500.00	\$6,500	15	2035	100%	\$8,006	2050	100%	\$10,010				Domestic hot water is provided to the shower rooms and kitchen by a 2014 replacement State Sandblaster, commercial, 80-gallon, electric water heater. Management reported that the unit was replaced for a price of \$6,158. This price included the cost of relocation, and therefore, was not used in our calculations.
5.11	Plumbing Fixtures	1	LS	\$25,000.00	\$25,000	35	2052	100%	\$39,663							This category consists of sinks, commodes, urinals, showers, and partitions of the shower rooms, the sink, commode, and scrub sink of the restroom, and the drinking fountain. We understand that the renovation of the shower rooms included the replacement of all of the plumbing fixtures. No deficiencies were observed.
5.12	Electrical Equipment & Electrical Service Panels	1	LS	\$4,016.00	\$4,016	45	2046	100%	\$5,827							This category includes the exhaust fans, emergency light, wall-mounted heaters, ceiling-mounted fluorescent fixtures, and wall-mounted fixtures of the lower level of the building and the electric panels. We understand that two replacement Square D panels total 625 amps were installed in 2016 for \$4,017.
5.13	Pool Covers	1	LS	\$14,000.00	\$14,000	10	2023	100%	\$14,423	2033	100%	\$16,739	2043	100%	\$19,426	Nylon mesh pool covers were purchased in 2006. They appear to be in poor condition and due to the addition of the stairs, no longer fit the pool. However, we have extended the service life of the covers assuming repairs will be made under operations in 2020. Pool covers may extend the service life of the white coat and reduce overall maintenance costs.
5.14	Pool Soft Joint	1	LS	\$1,000.00	\$1,000	2	2022	100%	\$1,015	2023	100%	\$1,030	2024	100%	\$1,046	The joint between coping tiles and pool deck is sealed with a flexible sealant to prevent water infiltration behind the pool structure. Over time, this sealant deteriorates and water infiltration can cause damage to the pool structure during freeze/thaw cycles. Management has requested this budget for a total of 1/3 every year such that all sealant is replaced every three years.
5.15	ADA Wheelchair Lift	1	LS	\$6,116.00	\$6,116	15	2035	100%	\$7,533	2050	100%	\$9,419				An ADA lift has been added to the inventory and was purchased in 2020. Management provided the cost of the lift.

CALENDAR OF EXPENDITURES TABLE 2 EXPLANATION

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

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

Reserve Fund Plan for
HIDDENBROOK HOA
Herndon, Virginia

CALENDAR OF EXPENDITURES

TABLE 2
2021 Through 2040

YEAR	COMPONENT NO.	COMPONENT	PRESENT COST 2021	FUTURE COST (INFLATED)	TOTAL ANNUAL EXPENDITURES	ACTION
1	2	3	4	5	6	7
2021					2021	
	3.6	Tot Lot Mulch	\$3,075	\$3,075	TOTAL EXPENDITURES	
	4.8	Office Equipment & Furnishings Allowance	\$1,500	\$1,500		
					\$4,575	
2022					2022	
	2.2	Concrete Curbs & Gutters	\$2,955	\$2,999	TOTAL EXPENDITURES	
	2.4	Concrete Pool Deck	\$4,902	\$4,976		
	3.11	Tree Trimming, Removal, & Replacement Allowance	\$5,000	\$5,075		
	5.6	Pool Furniture Allowance	\$15,600	\$15,834		
	5.14	Pool Soft Joint	\$1,000	\$1,015		
					\$29,899	
2023					2023	
	3.5	Tot Lot & Outdoor Furniture Allowance	\$35,000	\$36,058	TOTAL EXPENDITURES	
	3.6	Tot Lot Mulch	\$3,075	\$3,168		
	5.13	Pool Covers	\$14,000	\$14,423		
	5.14	Pool Soft Joint	\$1,000	\$1,030		
					\$54,679	
2024					2024	
	5.9	Pool Chlorinators	\$1,725	\$1,804	TOTAL EXPENDITURES	
	5.14	Pool Soft Joint	\$1,000	\$1,046		
					\$2,849	
2025					2025	
	1.1	Asphalt Restoration Project	\$52,000	\$55,191	TOTAL EXPENDITURES	
	1.3	Asphalt Full-Depth Repair & Crack Filling Allowance	\$9,900	\$10,507		
	3.6	Tot Lot Mulch	\$3,075	\$3,264		
	3.11	Tree Trimming, Removal, & Replacement Allowance	\$5,000	\$5,307		
	5.14	Pool Soft Joint	\$1,000	\$1,061		
					\$75,330	
2026					2026	
	3.8	Tennis Court Color Coat	\$17,910	\$19,294	TOTAL EXPENDITURES	
	3.12	Storm Water Drainage System Allowance	\$7,500	\$8,080		
	4.8	Office Equipment & Furnishings Allowance	\$1,500	\$1,616		
	4.11	Tile Flooring	\$7,384	\$7,955		
	5.14	Pool Soft Joint	\$1,000	\$1,077		
					\$38,022	
2027					2027	
	2.2	Concrete Curbs & Gutters	\$1,477	\$1,615	TOTAL EXPENDITURES	
	2.3	Concrete Steps	\$2,542	\$2,780		
	2.4	Concrete Pool Deck	\$4,902	\$5,361		
	3.1	Entrance Signs	\$4,360	\$4,767		
	3.2	Storage Shed	\$2,000	\$2,187		
	3.6	Tot Lot Mulch	\$3,075	\$3,362		
	4.2	Wood Siding & Trim	\$3,434	\$3,755		
	4.4	Door Allowance	\$3,105	\$3,395		
	4.9	Building Lighting & Electrical Allowance	\$8,500	\$9,294		
	4.10	Carpeting	\$6,346	\$6,939		
	5.14	Pool Soft Joint	\$1,000	\$1,093		
					\$44,549	
2028					2028	
	3.11	Tree Trimming, Removal, & Replacement Allowance	\$5,000	\$5,549	TOTAL EXPENDITURES	
	5.2	Pool White Coat	\$49,846	\$55,321		
	5.14	Pool Soft Joint	\$1,000	\$1,110		

Reserve Fund Plan for
HIDDENBROOK HOA
Herndon, Virginia

CALENDAR OF EXPENDITURES

TABLE 2
2021 Through 2040

YEAR	COMPONENT NO.	COMPONENT	PRESENT COST 2021	FUTURE COST (INFLATED)	TOTAL ANNUAL EXPENDITURES	ACTION
1	2	3	4	5	6	7
					\$61,980	
2029					2029	
	3.6	Tot Lot Mulch	\$3,075	\$3,464	TOTAL EXPENDITURES	
	5.14	Pool Soft Joint	\$1,000	\$1,126		
					\$4,590	
2030					2030	
	1.2	Asphalt Seal Coat	\$8,403	\$9,608	TOTAL EXPENDITURES	
	1.3	Asphalt Full-Depth Repair & Crack Filling Allowance	\$2,475	\$2,830		
	3.6	Tot Lot Mulch	\$3,075	\$3,516		
	3.7	Tennis Court Restoration Project	\$28,750	\$32,872		
	3.8	Tennis Court Color Coat	\$17,910	\$20,478		
	3.9	Tennis Court Benches	\$2,400	\$2,744		
	3.10	Tennis Court Fencing	\$15,840	\$18,111		
	4.5	Split-System Heat Pump	\$13,380	\$15,299		
	4.13	Surveillance & Security Systems Allowance	\$3,000	\$3,430		
	5.7	Main Pool Pump & Filters	\$20,000	\$22,868		
	5.8	Wading Pool Pump & Filter	\$2,100	\$2,401		
	5.14	Pool Soft Joint	\$1,000	\$1,143		
					\$135,301	
2031					2031	
	3.4	Perimeter Wood Fencing	\$4,777	\$5,544	TOTAL EXPENDITURES	
	3.11	Tree Trimming, Removal, & Replacement Allowance	\$5,000	\$5,803		
	4.8	Office Equipment & Furnishings Allowance	\$1,500	\$1,741		
	5.14	Pool Soft Joint	\$1,000	\$1,161		
					\$14,248	
2032					2032	
	2.1	Concrete Sidewalks	\$2,697	\$3,177	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	\$1,477	\$1,740		
	2.4	Concrete Pool Deck	\$4,902	\$5,775		
	3.6	Tot Lot Mulch	\$3,075	\$3,622		
	4.4	Door Allowance	\$3,105	\$3,658		
	4.9	Building Lighting & Electrical Allowance	\$8,500	\$10,013		
	5.6	Pool Furniture Allowance	\$15,600	\$18,376		
	5.14	Pool Soft Joint	\$1,000	\$1,178		
					\$47,539	
2033					2033	
	5.13	Pool Covers	\$14,000	\$16,739	TOTAL EXPENDITURES	
	5.14	Pool Soft Joint	\$1,000	\$1,196		
					\$17,934	
2034					2034	
	3.4	Perimeter Wood Fencing	\$11,695	\$14,193	TOTAL EXPENDITURES	
	3.6	Tot Lot Mulch	\$3,075	\$3,732		
	3.11	Tree Trimming, Removal, & Replacement Allowance	\$5,000	\$6,068		
	4.6	Decks & Railings	\$5,123	\$6,217		
	4.11	Tile Flooring	\$1,846	\$2,240		
	5.4	Pool Fencing	\$53,227	\$64,594		
	5.9	Pool Chlorinators	\$1,725	\$2,093		
	5.14	Pool Soft Joint	\$1,000	\$1,214		
					\$100,351	
2035					2035	
	1.2	Asphalt Seal Coat	\$8,403	\$10,351	TOTAL EXPENDITURES	
	1.3	Asphalt Full-Depth Repair & Crack Filling Allowance	\$4,950	\$6,097		

Reserve Fund Plan for
HIDDENBROOK HOA
Herndon, Virginia

CALENDAR OF EXPENDITURES

TABLE 2
2021 Through 2040

YEAR	COMPONENT NO.	COMPONENT	PRESENT COST 2021	FUTURE COST (INFLATED)	TOTAL ANNUAL EXPENDITURES	ACTION
1	2	3	4	5	6	7
	3.8	Tennis Court Color Coat	\$17,910	\$22,061		
	4.13	Surveillance & Security Systems Allowance	\$3,000	\$3,695		
	5.10	Water Heater	\$6,500	\$8,006		
	5.14	Pool Soft Joint	\$1,000	\$1,232		
	5.15	ADA Wheelchair Lift	\$6,116	\$7,533		
					\$58,975	
2036					2036	
	2.5	Concrete Dumpster Slab	\$8,700	\$10,877	TOTAL EXPENDITURES	
	3.3	Retaining Walls	\$5,332	\$6,666		
	3.6	Tot Lot Mulch	\$3,075	\$3,844		
	3.12	Storm Water Drainage System Allowance	\$7,500	\$9,377		
	4.8	Office Equipment & Furnishings Allowance	\$1,500	\$1,875		
	5.1	Pool Restoration Project	\$266,200	\$332,812		
	5.5	Pool Perimeter Equipment	\$33,310	\$41,645		
	5.14	Pool Soft Joint	\$1,000	\$1,250		
					\$408,347	
2037					2037	
	2.1	Concrete Sidewalks	\$1,349	\$1,711	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	\$1,477	\$1,875		
	2.3	Concrete Steps	\$3,658	\$4,642		
	2.4	Concrete Pool Deck	\$4,902	\$6,221		
	3.1	Entrance Signs	\$6,540	\$8,299		
	3.11	Tree Trimming, Removal, & Replacement Allowance	\$5,000	\$6,345		
	4.1	Re-Roofing Projects	\$13,929	\$17,676		
	4.2	Wood Siding & Trim	\$13,738	\$17,433		
	4.4	Door Allowance	\$3,105	\$3,940		
	4.9	Building Lighting & Electrical Allowance	\$8,500	\$10,786		
	4.10	Carpeting	\$6,346	\$8,053		
	5.14	Pool Soft Joint	\$1,000	\$1,269		
					\$88,250	
2038					2038	
	3.6	Tot Lot Mulch	\$3,075	\$3,961	TOTAL EXPENDITURES	
	4.3	Glass French Doors	\$28,674	\$36,933		
	5.14	Pool Soft Joint	\$1,000	\$1,288		
					\$42,181	
2039					2039	
	4.6	Decks & Railings	\$15,370	\$20,093	TOTAL EXPENDITURES	
	5.14	Pool Soft Joint	\$1,000	\$1,307		
					\$21,401	
2040					2040	
	1.2	Asphalt Seal Coat	\$8,403	\$11,151	TOTAL EXPENDITURES	
	1.3	Asphalt Full-Depth Repair & Crack Filling Allowance	\$7,425	\$9,853		
	3.6	Tot Lot Mulch	\$3,075	\$4,080		
	3.8	Tennis Court Color Coat	\$17,910	\$23,766		
	3.9	Tennis Court Benches	\$2,400	\$3,185		
	3.11	Tree Trimming, Removal, & Replacement Allowance	\$5,000	\$6,635		
	4.13	Surveillance & Security Systems Allowance	\$3,000	\$3,981		
	5.3	Pool Coping	\$15,072	\$20,000		
	5.8	Wading Pool Pump & Filter	\$2,100	\$2,787		
	5.14	Pool Soft Joint	\$1,000	\$1,327		
					\$86,763	

CURRENT FUNDING ANALYSIS CASH FLOW METHOD
TABLE 3.0 EXPLANATION
and, if applicable,
ALTERNATIVE FUNDING ANALYSIS CASH FLOW METHOD
TABLE 3.1, 3.2, 3.3 (etc.) EXPLANATION

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

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

A description of the columns in the table follows:

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

Reserve Fund Plan for
HIDDENBROOK HOA
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FUNDING ANALYSIS
HYBRID APPROACH
CASH FLOW METHOD
TABLE 3



Beginning Reserve Fund Balance: **467,386** Annual Contribution To Reserves: **28,781** Contribution Percentage Increase: **1.50%** Annual Inflation Factor: **1.50%** Annual Interest Income Factor: **0.50%**

In Dollars

YEAR	TOTAL ASSET BASE	BEGINNING RESERVE FUND BALANCE	ANNUAL CONTRIBUTION	INTEREST INCOME	CAPITAL EXPENDITURES	ENDING RESERVE FUND BALANCE
1	2	3	4	5	6	7
2021	1,183,170	467,386	28,781	7,800	4,575	499,392
2022	1,200,918	499,392	63,321	2,593	29,899	535,407
2023	1,218,931	535,407	64,271	2,709	54,679	547,708
2024	1,237,215	547,708	65,235	2,914	2,850	613,007
2025	1,255,774	613,007	66,213	3,047	75,330	606,938
2026	1,274,610	606,938	67,206	3,121	38,022	639,243
2027	1,293,729	639,243	68,214	3,268	44,548	666,177
2028	1,313,135	666,177	69,238	3,358	61,980	676,793
2029	1,332,832	676,793	70,276	3,570	4,590	746,049
2030	1,352,825	746,049	71,330	3,566	135,300	685,645
2031	1,373,117	685,645	72,400	3,594	14,249	747,391
2032	1,393,714	747,391	73,486	3,816	47,539	777,154
2033	1,414,620	777,154	74,589	4,048	17,935	837,856
2034	1,435,839	837,856	75,707	4,132	100,351	817,345
2035	1,457,377	817,345	76,843	4,145	58,975	839,358
2036	1,479,237	839,358	77,996	3,311	408,346	512,318
2037	1,501,426	512,318	79,166	2,543	88,250	505,777
2038	1,523,947	505,777	80,353	2,638	42,182	546,587
2039	1,546,806	546,587	81,558	2,902	21,400	609,648
2040	1,570,009	609,648	82,782	3,045	86,765	608,709

STUDY PERIOD TOTALS

1,408,966

70,122

1,337,765

FULLY FUNDED BALANCE GOAL



FUNDING ANALYSIS COMPONENT METHOD TABLE 4 EXPLANATION

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

Column 1 **Component Number** is consistent throughout the tables.

Column 2 **Component** is a brief description of the component.

Columns 3 - 22 **Years** lists the annual contribution amount toward each component throughout the twenty-year study period, which is totaled at the bottom of the component table.

COMPONENT METHOD SUMMARY

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

Beginning Reserve Fund Balance:

In Dollars

467,386

Component Number	COMPONENT	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
1 ASPHALT COMPONENTS																					
1.1	Asphalt Restoration Project	3,627	3,627	3,627	3,627	3,533	3,533	3,533	3,533	3,533	3,533	3,533	3,533	3,533	3,533	3,533	3,533	3,533	3,533	3,533	3,533
1.2	Asphalt Seal Coat	1,044	1,044	1,044	1,044	1,044	1,044	1,044	1,044	1,044	2,044	2,044	2,044	2,044	2,044	2,202	2,202	2,202	2,202	2,202	1,262
1.3	Asphalt Full-Depth Repair & Crack Filling All	1,757	1,757	1,757	1,757	559	559	559	559	559	1,204	1,204	1,204	1,204	1,204	1,946	1,946	1,946	1,946	1,946	2,795
2 CONCRETE COMPONENTS																					
2.1	Concrete Sidewalks	281	281	281	281	281	281	281	281	281	281	281	338	338	338	338	338	364	364	364	364
2.2	Concrete Curbs & Gutters	691	319	319	319	319	319	344	344	344	344	344	370	370	370	370	370	399	399	399	399
2.3	Concrete Steps	279	279	279	279	279	279	453	453	453	453	453	453	453	453	453	453	516	516	516	516
2.4	Concrete Pool Deck	1,146	1,059	1,059	1,059	1,059	1,059	1,140	1,140	1,140	1,140	1,140	1,228	1,228	1,228	1,228	1,228	1,323	1,323	1,323	1,323
2.5	Concrete Dumpster Slab	525	525	525	525	525	525	525	525	525	525	525	525	525	525	525	696	696	696	696	696
3 SITE FEATURES																					
3.1	Entrance Signs	263	263	263	263	263	263	809	809	809	809	809	809	809	809	809	809	1,177	1,177	1,177	1,177
3.2	Storage Shed	125	125	125	125	125	125	175	175	175	175	175	175	175	175	175	175	175	175	175	175
3.3	Retaining Walls	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	427	427	427	427	427
3.4	Perimeter Wood Fencing	364	364	364	364	364	364	364	364	364	364	4,695	4,695	4,695	1,451	1,451	1,451	1,451	1,451	1,451	1,451
3.5	Tot Lot & Outdoor Furniture Allowance	3,293	3,293	2,308	2,308	2,308	2,308	2,308	2,308	2,308	2,308	2,308	2,308	2,308	2,308	2,308	2,308	2,308	2,308	2,308	2,308
3.6	Tot Lot Mulch	1,687	1,576	1,623	1,623	1,672	1,672	1,723	1,723	3,506	1,802	1,802	1,856	1,856	1,912	1,912	1,970	1,970	2,030	2,030	2,091
3.7	Tennis Court Restoration Project	1,679	1,679	1,679	1,679	1,679	1,679	1,679	1,679	1,679	1,791	1,791	1,791	1,791	1,791	1,791	1,791	1,791	1,791	1,791	1,791
3.8	Tennis Court Color Coat	3,810	3,810	3,810	3,810	3,810	5,067	5,067	5,067	5,067	4,356	4,356	4,356	4,356	4,356	4,693	4,693	4,693	4,693	4,693	5,056
3.9	Tennis Court Benches	269	269	269	269	269	269	269	269	269	311	311	311	311	311	311	311	311	311	311	360
3.10	Tennis Court Fencing	674	674	674	674	674	674	674	674	674	987	987	987	987	987	987	987	987	987	987	987
3.11	Tree Trimming, Removal, & Replacement All	1,802	1,755	1,755	1,755	1,836	1,836	1,836	1,919	1,919	1,919	2,007	2,007	2,007	2,099	2,099	2,099	2,195	2,195	2,195	2,295
3.12	Storm Water Drainage System Allowance	823	823	823	823	823	914	914	914	914	914	914	914	914	914	914	1,061	1,061	1,061	1,061	1,061
4 COMMUNITY CENTER BUILDING																					
4.1	Re-Roofing Projects	849	849	849	849	849	849	849	849	849	849	849	849	849	849	849	849	1,132	1,132	1,132	1,132
4.2	Wood Siding & Trim	141	141	141	141	141	141	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	986	986	986	986
4.3	Glass French Doors	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	2,012	2,012	2,012
4.4	Door Allowance	340	340	340	340	340	340	722	722	722	722	722	778	778	778	778	778	838	838	838	838
4.5	Split-System Heat Pump	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,228	1,228	1,228	1,228	1,228	1,228	1,228	1,228	1,228	1,228	1,228
4.6	Decks & Railings	463	463	463	463	463	463	463	463	463	463	463	463	463	3,968	3,968	3,968	3,968	3,968	2,850	2,850
4.7	Kitchen Refurbishment Project	384	384	384	384	384	384	384	384	384	384	384	384	384	384	384	384	384	384	384	384
4.8	Office Equipment & Furnishings Allowance	384	319	319	319	319	344	344	344	344	344	370	370	370	370	370	399	399	399	399	399
4.9	Building Lighting & Electrical Allowance	1,526	1,526	1,526	1,526	1,526	1,526	1,977	1,977	1,977	1,977	1,977	2,130	2,130	2,130	2,130	2,130	6,884	6,884	6,884	6,884
4.10	Carpeting	696	696	696	696	696	696	785	785	785	785	785	785	785	785	785	785	911	911	911	911
4.11	Tile Flooring	810	810	810	810	810	274	274	274	274	274	274	274	274	1,014	1,014	1,014	1,014	1,014	1,014	1,014
4.12	Shower Room Finishes	1,861	1,861	1,861	1,861	1,861	1,861	1,861	1,861	1,861	1,861	1,861	1,861	1,861	1,861	1,861	1,861	1,861	1,861	1,861	1,861
4.13	Surveillance & Security Systems Allowance	373	373	373	373	373	373	373	373	373	730	730	730	730	730	786	786	786	786	786	847
5 POOL FACILITY																					

Beginning Reserve Fund Balance:

In Dollars **467,386**

Component Number	COMPONENT	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
5.1	Pool Restoration Project	8,771	8,771	8,771	8,771	8,771	8,771	8,771	8,771	8,771	8,771	8,771	8,771	8,771	8,771	8,771	16,069	16,069	16,069	16,069	16,069
5.2	Pool White Coat	7,764	7,764	7,764	7,764	7,764	7,764	7,764	3,839	3,839	3,839	3,839	3,839	3,839	3,839	3,839	3,839	3,839	3,839	3,839	3,839
5.3	Pool Coping	1,003	1,003	1,003	1,003	1,003	1,003	1,003	1,003	1,003	1,003	1,003	1,003	1,003	1,003	1,003	1,003	1,003	1,003	1,003	1,280
5.4	Pool Fencing	1,778	1,778	1,778	1,778	1,778	1,778	1,778	1,778	1,778	1,778	1,778	1,778	1,778	3,119	3,119	3,119	3,119	3,119	3,119	3,119
5.5	Pool Perimeter Equipment	1,098	1,098	1,098	1,098	1,098	1,098	1,098	1,098	1,098	1,098	1,098	1,098	1,098	1,098	1,098	2,011	2,011	2,011	2,011	2,011
5.6	Pool Furniture Allowance	3,648	1,792	1,792	1,792	1,792	1,792	1,792	1,792	1,792	1,792	1,792	2,079	2,079	2,079	2,079	2,079	2,079	2,079	2,079	2,079
5.7	Main Pool Pump & Filters	1,514	1,514	1,514	1,514	1,514	1,514	1,514	1,514	1,514	1,835	1,835	1,835	1,835	1,835	1,835	1,835	1,835	1,835	1,835	1,835
5.8	Wading Pool Pump & Filter	235	235	235	235	235	235	235	235	235	272	272	272	272	272	272	272	272	272	272	315
5.9	Pool Chlorinators	196	196	196	204	204	204	204	204	204	204	204	204	204	237	237	237	237	237	237	237
5.10	Water Heater	515	515	515	515	515	515	515	515	515	515	515	515	515	515	642	642	642	642	642	642
5.11	Plumbing Fixtures	812	812	812	812	812	812	812	812	812	812	812	812	812	812	812	812	812	812	812	812
5.12	Electrical Equipment & Electrical Service Pa	219	219	219	219	219	219	219	219	219	219	219	219	219	219	219	219	219	219	219	219
5.13	Pool Covers	1,699	1,699	1,632	1,632	1,632	1,632	1,632	1,632	1,632	1,632	1,632	1,632	1,894	1,894	1,894	1,894	1,894	1,894	1,894	1,894
5.14	Pool Soft Joint	522	1,027	1,043	1,058	1,074	1,090	1,107	1,123	1,140	1,157	1,175	1,192	1,210	1,228	1,247	1,266	1,285	1,304	1,323	1,343
5.15	ADA Wheelchair Lift	485	485	485	485	485	485	485	485	485	485	485	485	485	485	605	605	605	605	605	605
ANNUAL COMPONENT CONTRIBUTION TOTALS		64,982	62,949	61,960	61,983	60,837	61,690	65,115	61,289	63,089	63,733	68,196	68,934	69,214	71,755	73,314	82,054	87,259	87,928	86,829	87,712

COMPONENT METHOD SUMMARY	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
BEGINNING RESERVE FUND BALANCE	467,386	530,312	566,190	576,476	638,667	627,539	654,519	678,543	681,419	743,504	675,836	733,355	758,612	813,881	789,558	808,053	486,033	487,714	536,143	604,494
PLUS ANNUAL COMPONENT CONTRIBUTION	64,982	62,949	61,960	61,983	60,837	61,690	65,115	61,289	63,089	63,733	68,196	68,934	69,214	71,755	73,314	82,054	87,259	87,928	86,829	87,712
CAPITAL EXPENDITURES	4,575	29,899	54,679	2,850	75,330	38,022	44,548	61,980	4,590	135,300	14,249	47,539	17,935	100,351	58,975	408,346	88,250	42,182	21,400	86,765
SUBTOTAL	527,793	563,362	573,471	635,609	624,174	651,207	675,086	677,852	739,918	671,937	729,783	754,750	809,891	785,285	803,897	481,761	485,042	533,460	601,572	605,441
PLUS INTEREST INCOME @ 0.50%	2,519	2,828	3,006	3,057	3,366	3,312	3,457	3,567	3,586	3,899	3,572	3,862	3,990	4,273	4,156	4,272	2,672	2,683	2,922	3,267
FULLY FUNDED RESERVE FUND BALANCE	530,312	566,190	576,476	638,667	627,539	654,519	678,543	681,419	743,504	675,836	733,355	758,612	813,881	789,558	808,053	486,033	487,714	536,143	604,494	608,709

PERCENT FUNDED FOR CURRENT CYCLE **97%**

TOTAL EXPENDITURES **1,337,765**

TOTAL CONTRIBUTIONS **1,410,822**

STUDY PERIOD TOTAL INTEREST **68,266**

AVERAGE ANNUAL CONTRIBUTION **70,541**

FULLY FUNDED BALANCE GOAL

**PHOTOGRAPHS
WITH
DESCRIPTIVE
NARRATIVES**



MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.



PHOTO #1
The asphalt driveline and parking bays were recently crack filled and coated with asphalt rejuvenator. The asphalt appears to be heavily cracked, but no deflection was observed. We have scheduled the restoration project after another five years of service.



PHOTO #2
The sidewalks and curbs and gutters are in very good condition with no significant deficiencies observed.



PHOTO #3
The pool deck is in generally good condition with some repairs, both filled and unfilled cracking, and it was recently modified to make room for new pool access stairs.



PHOTO #4

The tennis court was color coated and all cracks were repaired recently. Net post tension appears to have been relaxed and no net post footing cracking was observed.



PHOTO #5

The tot lot is in serviceable, but dated condition. We have scheduled its replacement after a few more years of service. Frequent inspection should be conducted to ensure a safe environment is maintained.



PHOTO #6

The asphalt shingle roofing was replaced in 2017 and appears to be in excellent condition.



PHOTO #7

The siding as well as the deck boards and railings have also been replaced with composite materials. The workmanship appears to be very good and these components should provide a long service life.



PHOTO #8

The folding tables and chairs as well as the carpet was replaced, and no deficiencies were observed.



PHOTO #9

We have scheduled a modest near-term expenditure to address the replacement of the worn/dated office furnishings and equipment.



PHOTO #10

The water heater was replaced in 2020. No problems were reported though the previous unit did not achieve a typical service life.



PHOTO #11

The pool pumps and ancillary equipment all appear to be in good condition and no problems were reported.



PHOTO #12

The pools was closed for the season and were not observed. However, we understand that the pool structure is in good condition and it was white coated, modified, and all tile and coping was recently replaced.