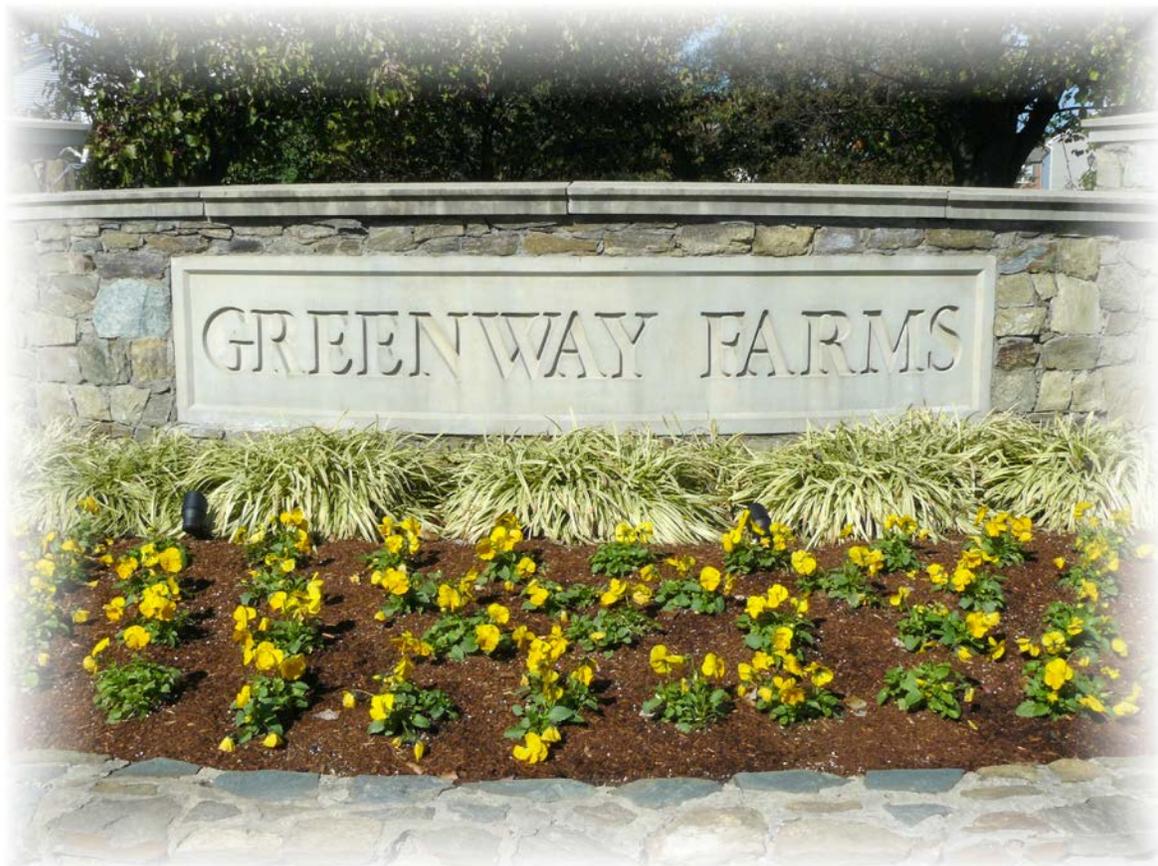


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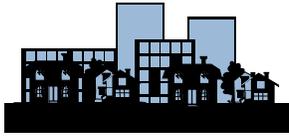


(Final Report, Revised February 25, 2016)
**Condition Assessment
&
Reserve Fund Plan Update
2016
GREENWAY FARMS**

Leesburg, Virginia



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



MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.



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February 25, 2016

Ms. Lily Lombardo, CMCA, Community Management Specialist
American Management of Virginia, Inc.
722 East Market Street, Suite #201
Leesburg, Virginia 20176

RE: **CONDITION ASSESSMENT AND RESERVE FUND PLAN UPDATE 2016**
Greenway Farms Homeowners Association
(Final Report, Revised February 25, 2016)
Leesburg, Virginia
Project No. 8011

Dear Ms. Lombardo:

Mason & Mason Capital Reserve Analysts, Inc. has completed the final report for Greenway Farms.

We have revised the report to reflect changes you and the Board requested via email on January 22, 2016.

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

Sincerely,

Mason & Mason Capital Reserve Analysts, Inc.

James G. Mason III, 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 Greenway Farms' Reserve Fund Plan Update. Each is discussed in greater detail in the body of the report. We encourage the reader to "go deeper" into the report, and we have written it in a way that's understandable to a first-time reader.

Analyzing the capital reserves reveals that:

- The reserve fund is approximately **73%** funded through 2015. **This is a significant improvement from past years. Our goal is to become fully funded by the end of the 20-year period (2035).**

In order to achieve this goal, the Association should:

- Step increase the annual contribution beginning in **2016** by **\$7,050** for **each of three years**, followed by annual adjustments of **2.5%** to reflect inflation.
- This represents a 2016 increase from **\$15.68** to **\$17.06** (a net increase of **\$1.38**) per residential unit, per month (based on **425** total residents).

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

VISUAL EVALUATION METHODOLOGY

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

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

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

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

Projected useful service lives are based on statistical data and our opinion of their current visual condition. No guarantee of component service life expectancies 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: Greenway Farms Homeowners Association is a combination of 269 single-family homes and 156 townhomes located on Meade Drive SW in Leesburg, Virginia. The community was constructed circa 1996. Three private streets, Goldsworth Terrace, Connery Terrace, and Hampshire Square are within the townhome section, and one parking area in front of the community center is private.

The street layout for the townhomes and the community center include concrete sidewalks, driveway aprons, curbs and gutters, and 24 parking bays providing 259 spaces. Other common elements of the community include: asphalt footpaths, footbridge, fencing, street signage in the townhome section, entrance signs, basketball court, tennis courts, and a pool and community center. Management reports that the Master and the Townhomes share a single reserve fund. Therefore, we are providing a single set of reserve fund plan tables with individual categories for clarity.

We are providing the Condition Assessment and Reserve Fund Plan based on Proposal Acceptance Agreement No. 8011 dated July 15, 2015. 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 Greenway Farms in 2009. This report is a Level II Update of the previous report and includes a new condition assessment. All common components were visually observed. Measurements and quantities were generally accepted from the previous report except where changes have occurred. The update report is a stand-alone document and reference to the previous report should not be necessary.

James G. Mason III, R. S. conducted the field evaluation for this report on October 21, 2015. The weather was clear and the temperature was approximately 76 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 much improved condition. The community is now reaching a 20-year benchmark in terms of replacement of major systems. The asphalt driveline and parking bays at the community center, along with the asphalt footpaths throughout the community are in generally good condition, having received restoration in recent years. Preventive maintenance such as full-depth repairs, crack filling, and seal coating should continue. Concrete components such as the sidewalks, patio, wheel stops, retaining wall, and the pool deck range from fair to continuing good condition. Some repairs are required and are scheduled near-term, which should coincide with the concrete repairs at the townhomes.

Master Association Site Features such as the entrance monument lighting, vinyl fencing, metal handrailings, tennis courts and fencing, multi-purpose court and basketball goals, and the footbridge are in continuing good condition. The entrance monument walls are deteriorating and in need of repairs. However, we understand that the monument land may be sold in the future, and that the Board does not wish to maintain this area. We are leaving the monuments and landscape lighting in the study at this point, but may be removed in future updates or during report finalization. We have included a Tree Trimming, Removal, and Replacement Allowance. Costs and schedules were provided by Management.

We understand that the community center roofing and the wood facade railing will be replaced near-term and have provided for the cost based on proposals provided to Management. Other community center components such as the vinyl siding, wood trim, windows, doors, lighting, carpeting, plumbing fixtures, overhead doors, storage sheds, and the community center sign range from fair to continuing good condition. We also understand that the water heater at the community center has been replaced twice since our last evaluation. It appears that the previous unit may have overheated. We are concerned with the use of the heat-damaged wires serving the new unit. This should be investigated and/or replaced for safety. Management informed us that the Board may consider removing the dry deck flooring in the bathhouses, but a decision has not been made at this point, so we are leaving the tiles in the study. This can be removed in future updates or report finalization.

No problems have been reported with either pool, so we are remaining on schedule for the future pool restoration project. Management indicated that the last known white coating project was completed circa 2009. The pool was closed and covered for the season, so we could not evaluate its condition. However, white coating generally has a service life of seven years, and therefore we are scheduling new white coating and coping repair near-term. All other pool components appear to range from new to fair condition. The main and wading pool pumps, phase controller, and filters appear to be the same units from our previous evaluation in 2008, but no problems were reported to us.

The townhome streets, parking bays, and the street signage were restored this year and are in excellent condition. Pavement maintenance should continue in about six years.

There is a minor quantity of cracked, settled and/or heaved concrete sidewalks at the townhomes, which are potential tripping hazards. The liability and costs associated with personal injury lawsuits resulting primarily from sidewalk and curb tripping hazards are too great to defer repair. It is our opinion that addressing deficiencies, which pose a hazard to pedestrians, should not be deferred. As such, we recommend correcting the tripping hazards observed throughout the sidewalks as soon as practicable.

Financially, the Association requires an increase in contributions to reserves. We have stepped the increases over three years to minimize the impact on individual homeowners, but have established a sufficient contribution schedule to eventually achieve the fully funded goal by the end of the 20-year period. This increase is mainly driven by moving the Tree Trimming, Removal, and Replacement Allowance to reserves from operations, which is a net-neutral accounting transaction.

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

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

2. FINANCIAL ANALYSIS

We track the annual inflation rate among our clients based on their reported costs for typical services. A 3.5% annual rate reflects their general pre-recession experience. However, currently we are seeing somewhat lower rates and we are using 2.5%. Interest income has dropped substantially, and many smaller Associations and Condominiums are reduced to savings accounts or certificates of deposit, which are yielding 1% or less. Unlike reserves, interest income is taxable, so this further reduces the net gain. 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, 2015**, is projected to be **\$362,000**. We have used a **1.00%** annual interest income factor and a **2.50%** inflation factor in our calculations. The total expenditures for the twenty-year period for both the **Cash Flow Method** and **Component Method** are projected to be **\$1,917,152**.

2.2 Current Funding Analysis, Cash Flow Method (Table 3): The 2015 annual contribution to reserves has been set at **\$80,000 with a presumed 2.5% annual increase**. At this level, the total for all annual contributions for the twenty-year period would be **\$2,043,573**, and the total interest income is projected to be **\$116,676**. **This funding results in unrealistically low balances throughout the twenty-year period and never achieves the fully-funded goal.**

2.3 Alternative Funding Analysis, Cash Flow Method (Table 3.1): This stepped plan provides the annual contributions necessary to maintain balances more consistent with the **fully funded goal by increasing the annual contribution by \$7,050 beginning in 2016, for each of three years, followed by annual adjustments of 2.50%, matching inflation thereafter. This alternative allows for a gradual increase over time after the initial series of stepped increases and addresses generational equity issues.** The total for all annual contributions for the twenty-year period would be **\$2,445,529**, and the total interest income is projected to be **\$154,663**. **The approximate fully funded balance in 2035 is \$1,045,040.**

2.4 Funding Analysis, Component Method (Table 4): This method of funding would require variable annual contributions, averaging **\$121,117** over the twenty-year period. The total for all annual contributions would be **\$2,422,338**, and the total interest income is projected to be **\$179,953**. **The fully funded balance in 2035 is \$1,047,139.** 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 doesn't include replacement funding for anything beyond the 20-year period, thus leaving a potential shortfall in funding and failing to address generational equity if not specifically set to do so.** It doesn't provide any real guidance beyond the basic information. There are several variations on cash flow goals such as Threshold Funding (just enough to stay positive) and Percentage Funding (a predetermined level based on some arbitrary percentage), but these schemes don't address the reality of fully funding, and typically are just a way of passing the obligation on to the next generation.

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

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

4. RESERVE PROGRAMMING

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

4.1 Interest Income on Reserve Funds: Most Associations invest at least part of their reserve funds. Small Associations may simply use a savings account or certificates of deposit, while large Associations may have multiple investments with short-, medium-, and long-term instruments. One issue that is difficult to quantify is the percentage of funds invested. Some Associations invest a fairly substantial portion, while others hold back due to current cash outflow obligations. Some Associations do not reinvest the investment proceeds in their reserves; rather they divert the cash into their operations fund. We do not agree with this approach as it has the effect of requiring additional reserve contributions to make up for the difference. There is also the issue of changing rates over the 20-year period. In the recent past we have seen large swings in relatively short time periods. While reserve funds are not usually taxable by the IRS, the investment income generated by the reserve fund is taxable in most

situations. Even with all these potential pitfalls, investment income still represents a substantial source of additional funds and for this reason should not be ignored. There is no way to make “one size fits all” with any accuracy for the individual Association. Our approach to this dilemma is to use lower approximations that compensate for less than 100% of funds invested. We feel this is still better than not recognizing it, and periodic updates allow for adjustments based on experience. The rate can be set at any level, including zero, for Associations desiring to not recognize interest. **The rate should reflect, as accurately as possible, the actual composite rate of return on all securities and other instruments of investment including allowances for taxes.**

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

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

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

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

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

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

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

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

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

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

5. UPDATING THE RESERVE FUND PLAN

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

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

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

6. PREVENTIVE MAINTENANCE

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

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

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

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

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

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

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

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

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

6.8 Concrete Pool Deck: Cast-in-place concrete, slab-on-grade pool deck sections, which have large cracks, should be removed and replaced periodically to prevent water infiltration behind the pool structure. Minor cracks can be routed and sealed to extend the service life of the deck. In some instances, a breathable cementitious coating can be applied to improve the surface appearance and extend the surface life.

6.9 Ground Level Concrete Slabs or Concrete Patios: Any cracks occurring in ground-level concrete slabs should be routed and sealed. In order to extend the useful service life of concrete in contact with the ground, a penetrating sealer to prevent moisture infiltration into the concrete should be applied. This process should be repeated at approximately five- to ten-year intervals.

6.10 Bare Wood Components: Bare wood components, both non-treated and pressure-treated, generally will achieve a greater useful service life and improved appearance if preventative maintenance is performed. Periodic pressure washing and sealing with wood preservative is recommended on all wood components. Rough edges and splinters should be sanded prior to sealing. Damaged, warped, or deteriorated wood components should be replaced as necessary. Generally, securing or repairing wood components with screws will provide a better fastening method than nails.

6.11 Tennis Court Surface Overlay: 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. Net post footing displacement caused by over-tensioning of the net cable also results in court surface damage. However, the footings can be replaced without overlaying the court. In this region, tennis courts usually give about fifteen to twenty years of service before this procedure is necessary. Some courts fail much sooner and some last much longer. It is prudent to plan for overlay now because of the large expense involved if required. Good maintenance practices, including frequent sweeping, periodic color coating of the surface and proper tensioning of the net cable can extend the service life of tennis courts.

6.12 Tennis Court Color Coat: Color coating extends the life of the surface if cracking and other surface problems are not present. An average five-year life for color coating is scheduled, except within a year or two of scheduled surface overlay. Any cracking around net post footings should be sealed to prevent moisture infiltration.

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

6.14 Composite Shingle Roofs: Roofs and attic spaces should be inspected annually for damage and leaks. During the attic inspection, check to make sure that mechanical ventilation systems, such as bathroom exhaust fans and dryer ducts, are routed through the roof and not discharging into the attic space. Loose or missing shingles should be replaced on a regular basis. Signs of deflected roof sheathing or discoloration of the sheathing are indicative of moisture problems and should be investigated. It is important to ensure that proper ventilation is occurring at the soffit vents and that insulation is not obstructing the airflow. If attic ventilation appears to be inadequate, the installation of ridge vents and/or through-the-roof mechanical vents is usually a cost-effective way of extending the useful service life of the sheathing. Roof penetrations, such as plumbing vents, are a major source of leaks. During the inspection, these areas should be checked carefully for signs of leakage or rotten

sheathing. Gutters and downspouts should be inspected annually. Loose, damaged, or leaking sections should be secured, repaired, or replaced. All gutters should be kept clean of leaf material and debris. Clogged downspouts should be cleared. In areas where gutters collect fallen leaves, gutters should have screens installed. Downspouts should be directed away from buildings. Erosion can be minimized by the use of properly located splash blocks or plastic flexible tubing. In all cases, water should be directed away from building foundations. Splash blocks must be properly placed, and flexible plastic extensions require diligent maintenance.

6.15 Vinyl Siding: There is little maintenance to be done to vinyl siding. Periodic pressure washing will maintain appearance. Damaged sections should be replaced.

6.16 Painted Wood Trim Components: The service life of painted wood components depends greatly on the type of wood used, the initial installation method, level of exposure to the elements, and preventative maintenance practices during its service life. Kiln dried trim pieces should be primed on all surfaces prior to installation. Repainting projects should be performed every four years or as needed. Loose and flaking paint should be thoroughly removed and deteriorated trim pieces replaced with primed trim pieces prior to repainting projects.

6.17 Doors: Painted metal doors should be periodically cleaned of rust and peeling paint, primed, and re-painted, including the tops and bottoms of the doors. Damaged or deteriorated hardware should be replaced to prevent damage to the door.

6.18 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. It is prudent to plan for structural renovation now because of the large expense involved if required. Core samples should be taken periodically, as the pool ages, to determine the condition of the gunnite and concrete. Water infiltration will weaken the concrete and early detection can prevent higher repair costs.

6.19 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 7 to 10 years. Prior to white coating, the old surface must be cleaned and sandblasted or acidized to prepare the surface to accept the new white coat. Surfaces adjacent to all fittings, lap lane tiles, waterline tiles, and lights must be prepared by chipping the surface so that the new plaster feathers in around the edges. Any damaged tiles or coping or loose or hollow plaster in the pool shell should be removed and repaired prior to white coating. Sometimes a bond coat will be applied to increase adhesion. White coating should be done on a dry day when temperatures will remain above freezing. The pool should be refilled immediately, the filter system started, and the surface brushed frequently for several days to prevent residue buildup, which creates a rough surface. Eggshell cracking is part of the curing process of white coat and is not indicative of problems. Pool covers help extend the life of the white coat by preventing seasonal damage and discoloration, which may require acid treatments to maintain appearance.

6.20 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 and causing damage during freeze/thaw cycles. Sealant should be applied between the pool coping and the pool deck. Any loose, cracked, or “hollow” copings should be re-bedded or replaced annually as part of the long-term preventative maintenance required for pools.

6.21 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.

6.22 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 may be painted to improve appearance.

6.23 Street Signs: Standard painted metal street signs generally require very little maintenance over their useful service life. Signage tends to fade due to environmental exposure. Periodic cleaning of rust and repainting the posts will maintain appearance. There is little that can be done with the signs except to replace them periodically. Out of plumb posts should be straightened.

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

7. ASPHALT PAVEMENT REPORT

Street Name	Total SY Asphalt Pavement	SY Full-Depth Repairs	Linear Footage Cracks	Parking Spaces	Parking Bays
Townhome Pavement:					
Goldsworth Terrace	1,507	0	0	13	2
Connery Terrace	4,754	0	0	107	10
Connery Terrace (122-136)	995	0	0	20	2
Hampshire Square	3,622	0	0	63	5
Community Center Pavement:					
Parking area	2,058	0	80	56	5
TOTALS	12,936	0	80	259	24

All quantities approximate

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 17 **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	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1 MASTER ASSOCIATION - ASPHALT COMPONENTS																
1.1	Asphalt Restoration Project	2,058	SY	\$12.00	\$24,696	18	2030	100%	\$34,895	2048	100%	\$54,424				This component includes the asphalt driveline and parking bays for the Community Center. Neither the depth nor the sub-base of the pavement could be visually determined. The asphalt appears to be in continuing good condition. We understand it was restored circa 2012. No areas of alligator cracking (indicative of sub-base damage or insufficient asphalt depth) were observed on the driveline or parking bays. Restoration includes edgemilling and overlay with 1-½" 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	2,058	SY	\$1.20	\$2,470	6	2018	100%	\$2,595	2024	100%	\$3,009	2036	100%	\$4,047	The pavement does not appear to have been seal coated since the last restoration project. Seal coating 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 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 Repair Allowance	1	LS	\$3,600.00	\$3,600	6	2018	25%	\$946	2024	50%	\$2,193	2030	100%	\$5,087	No alligator cracked or deflected pavement (indicative of sub-base damage) was observed on the Community Center driveline or parking bays. About 80 linear feet of longitudinal and transverse cracking was observed within the parking area. The cost for this component is contingent on the work being done in conjunction with the townhome asphalt. Repairs are essential in order to achieve the projected remaining service life of the pavement. Full-depth repairs and crack filling are scheduled every six years throughout the study period, including the year of the asphalt restoration projects. See the Asphalt Pavement Report, Section 7, for additional details.
1.4	Asphalt Footpaths	5,330	SY	\$36.00	\$191,880	18	2027	100%	\$251,763	2042	100%	\$364,628				The asphalt footpaths generally 4', 6', and 10' in width providing access between sections of the community and at the Community Center appear to be in generally continuing good condition. We understand that the footpaths were restored circa 2012. About 2% (1,066 linear feet) of the footpaths are exhibiting transverse cracking.
2 MASTER ASSOCIATION - CONCRETE COMPONENTS																
2.1	Concrete Sidewalk and Front Patio	2,268	SF	\$11.50	\$26,082	5	2016	6%	\$1,565	2021	6%	\$1,771	2026	6%	\$2,003	Concrete sidewalks and the entrance slab in front of the Community Center are generally 4' wide. The thickness of the concrete could not be visually determined. Their condition ranges from good to fair. Some sections are cracked, including four sections of the entrance slab at the front of the building and one section of the sidewalk. Cyclic repairs are scheduled as full replacement of all sidewalks at one time is not appropriate or anticipated. Concrete repairs are scheduled to coincide with other concrete components to promote cost efficiencies. Any trip hazards or hazardous surface deficiencies should be addressed as soon as practicable to prevent personal injury.
2.2	Concrete Wheelstops	54	EA	\$67.00	\$3,618	30	2030	100%	\$5,112	2050	100%	\$8,377				The parking bays are lined with standard-profile, cast concrete wheelstops. The stops are generally in continuing good condition with only a few minor transverse cracks observed.
2.3	Concrete Dumpster Pad	80	SF	\$12.50	\$1,000	35	2030	100%	\$1,413	2065	100%	\$3,353				One concrete dumpster pad is located within the Community Center parking area. The concrete pad appears to be in continuing good condition. Concrete repairs are scheduled to coincide with other concrete components to promote cost efficiencies.
2.4	Concrete Retaining Wall	398	SF	\$78.00	\$31,044	40	2036	100%	\$50,869	2076	100%	\$136,587				A concrete retaining wall supports the pool deck and fence between the pool and the basketball court. The wall appears to be in continuing good condition with exception of deterioration of the southwest corner, which still requires repair.
2.5	Concrete Pool Deck	12,382	SF	\$12.50	\$154,775	10	2016	10%	\$15,478	2021	10%	\$17,511	2026	10%	\$19,813	The pool deck is cast-in-place concrete on grade and appears to be in generally continuing good condition with minor cracking observed. These cracks, and any additional cracking, should be routed and sealed to prevent water infiltration into the deck. The deck appears to have been at least partially constructed on fill and settlement may become more problematic. 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 trip hazards or hazardous surface deficiencies should be addressed as soon as practicable to prevent personal injury.
3 MASTER ASSOCIATION - SITE FEATURES																
3.1	Stone Entrance Monuments	2	EA	\$18,501.00	\$37,002	40	2042	100%	\$70,315							Two arched stone monuments approximately 59 feet in length with cast stone caps and embedded community name signs are constructed at the Greenway Drive SW entrance to the community. They appear to be in fair condition with several areas of failing stone work. We understand that the community may be selling this property to the adjacent neighborhood and that the Board no longer wants to continue repairs. Since the status of the monuments are in question at this time, we are leaving them in this study update. If the community retains the monuments, they should be repaired under operations.
3.2	Entrance Monument Lighting	12	EA	\$500.00	\$6,000	10	2021	100%	\$6,788	2031	100%	\$8,690	2041	100%	\$11,124	Landscape lighting provides illumination at the monuments. They appear to have been replaced since our last evaluation and are in continuing good condition. We did not observe lighting after dark. The lighting quantity has been reduced from 20 to 12 lights. Landscape lighting has a short service life due to its proximity to ground and moisture and damage from landscaping practices. As with component 3.1, the lighting component may be removed in the future.
3.3	Vinyl Fencing	3,136	LF	\$13.00	\$40,768	40	2041	100%	\$75,582							White, three-board vinyl fencing is installed at each side of the main entrance to Meade Drive SW, at the entrance to Greenway Drive SW and along Greenway Drive SW to Sheridan Way SW. It appears to be in continuing good condition. Vinyl fencing is a long-life component, requiring little or no maintenance. Occasional cleaning will maintain appearance.
3.4	Metal Railings	645	LF	\$42.00	\$27,090	35	2032	100%	\$40,215	2067	100%	\$95,439				Unpainted steel pipe railing, an average of four feet in height is attached along the top of the storm water drainage culverts throughout the community and mainly along Mead Drive SW, for safety. The railings are in continuing good condition. With proper, diligent maintenance, including cleaning and repairing deteriorated areas by welding replacement parts, this railing may be reusable, and may provide a long service life.

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3.5	Timber Retaining Wall	48	SF	\$34.00	\$1,632	20	2019	100%	\$1,757	2039	100%	\$2,880				Wood, pressure-treated retaining walls are constructed of 6" by 6" timbers at the corner of Mead Drive SW and Greenway Drive SW within the community. The wall is 16 feet long, averages 3 feet high, and is in fair to continuing good condition.
3.6	Tennis Court Restoration Project	2	EA	\$25,000.00	\$50,000	20	2030	100%	\$70,649	2050	100%	\$115,766				The tennis courts, located at the rear of the Community Center, appear to be in continuing very good condition. We understand that they were restored circa 2010. Recent repair under Component 3.7 is helping to maintain their condition. The full service life of the tennis courts is dependent on preventative maintenance being performed as outlined in the Preventive Maintenance section of the report. There are several after-market rubber/composite products offered for court restoration as an alternative to standard restoration practices. In our experience, in the case of court cracking, these methods should not be employed as they are generally unsuccessful at mitigating dynamic cracks except for a very short period of time.
3.7	Tennis Court Color Coat	2	EA	\$5,500.00	\$11,000	5	2020	100%	\$12,142	2025	100%	\$13,737	2035	100%	\$17,585	The tennis court color coat appears to be in excellent condition, with no surface deterioration observed. We understand that the courts were repaired and color coated circa 2015. The tennis court color coat seals the surface of the tennis courts and helps prevent water infiltration into the court structure. Color coat generally has a five-year service life.
3.8	Tennis Court Fencing	440	LF	\$24.00	\$10,560	30	2030	100%	\$14,921	2060	100%	\$31,298				Ten-foot-high, chain link fencing is installed around the perimeter of the tennis courts. The fencing appears to be in continuing good condition and is scheduled for replacement to coincide with the next court restoration.
3.9	Multi-Purpose Court Restoration Project	1	EA	\$20,000.00	\$20,000	20	2030	100%	\$28,259	2060	100%	\$59,276				One 50' x 80' multi-purpose court is located behind the Community Center. The court is currently striped for basketball. We understand that the court was restored circa 2010, and it is in continuing good condition with no cracking observed. We also understand that the court surface were repaired and color coated under Component 3.10 below.
3.10	Multi-Purpose Court Color Coat	1	EA	\$3,000.00	\$3,000	5	2020	100%	\$3,311	2025	100%	\$3,747	2035	100%	\$4,796	The multi-purpose court color coat appears to be in continuing good condition with no surface deterioration observed. We understand that repairs and color coating were completed circa 2015. The court color coat seals the surface of the multi-purpose court and helps prevent water infiltration into the court structure. Color coat generally has a five-year service life.
3.11	Basketball Goals	2	EA	\$2,500.00	\$5,000	30	2030	100%	\$7,065	2060	100%	\$14,819				The multi-purpose court has a basketball goal mounted on double galvanized metal standards installed at each end. They appear to be in continuing good condition.
3.12	Footbridge	528	SF	\$52.00	\$27,456	40	2038	100%	\$47,267							The community has a steel footbridge with a pressure-treated wood pedestrian surface located to the north of Lawford Drive SW and south of Nickels Drive SW, branching off from the asphalt footpaths. This footbridge, measuring 66 feet long and eight feet wide with metal railings, appears to be in continuing good condition. The wood decking of this bridge should be inspected for safety on an annual basis and any deteriorated wood planks replaced within the operations budget. Some rusting of the metal structure was observed. The community should consider cleaning, priming, and painting the steel to prevent early deterioration.
3.13	Tree Trimming, Removal, & Replacement Allowance	1	LS	\$10,000.00	\$10,000	1	2016	100%	\$10,000	2017	100%	\$10,250	2018	100%	\$10,506	Due to the age of the property, the site has many mature trees. 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 we include a budget amount to address tree removal, trimming, or replacement periodically throughout the study period. This budget was established by Management.
4 MASTER ASSOCIATION - COMMUNITY CENTER																
4.1	Re-Roofing Project	3,332	SF	\$4.50	\$14,994	20	2016	100%	\$14,994	2036	100%	\$24,569				The 6/12 pitched roofs have asphalt shingles. Ventilation is achieved through soffit vents, ridge vents, and gable vents. No missing or severely deteriorated shingles or deflection of the roof sheathing were observed. However, Management informed us that the roofing is planned for restoration near-term. Pre-finished aluminum gutters and downspouts are installed at all proper roof terminations. Downspouts appear to be properly terminated to subterranean drains, directed away from building foundations. Re-roofing projects include replacement of shingles, any localized deteriorated sheathing, and gutters and downspouts. The proposal cost is \$21,000, but removal of the wood railing at the roof line and replacement with vinyl is included in the price. The cost difference is included with Component 4.3.
4.2	Vinyl Siding	2,618	SF	\$4.40	\$11,519	30	2027	100%	\$15,114	2057	100%	\$31,703				The vinyl siding with bead edge clapboard provides the building envelope. All siding appears to be in continuing good condition with no deterioration or staining observed.
4.3	Wood & Vinyl Trim Allowance	1	LS	\$42,000.00	\$42,000	5	2016	12%	\$5,040	2021	10%	\$4,752	2027	30%	\$16,532	Painted wood trim occurs at windows, doors, entrances and around the 36 columns throughout the Community Center. All wood trim appears to be in continuing good condition, and it appears to have been recently painted to help protect the wood, particularly on the column bases. We anticipate a quantity of deteriorating trim over the twenty-year period based on our experience with similar communities. We have budgeted an allowance every five years, corresponding with repainting projects, to address deteriorated areas. We understand that the wood railing at the front roof line will be replaced by vinyl railings near-term. It's cost is included with this line item.
4.4	Windows	9	EA	\$950.00	\$8,550	30	2027	100%	\$11,218	2057	100%	\$23,531				The windows of the Community Center are double-hung, aluminum-frame, insulated, and appear to be in continuing good condition. No window flashing leaks were reported or observed.
4.5	Door Allowance	12	EA	\$825.00	\$9,900	25	2021	25%	\$2,800	2031	50%	\$7,169	2041	25%	\$4,589	This category includes all exterior glass and metal and painted metal doors and interior painted metal or plastic doors of the Community Center building. All doors appear to be generally continuing good condition. Doors are generally replaced as individual units become damaged or deteriorated. Doors in a wet or chlorine environment generally have a shorter than average service life. We have budgeted an allowance to address replacement of damaged or deteriorated doors throughout the study period.

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4.6	Water Heater	1	EA	\$4,800.00	\$4,800	20	2033	100%	\$7,304	2053	100%	\$11,968				Domestic hot water is provided to the shower rooms by an A. O. Smith, dual-element, 6000W, 240V, 1-phase, commercial, Model DEN80110, with Serial #1413M003421, 80-gallon, electric, water heater. The unit is located in a storage room in the women's room. We understand that this is the second water heater replacement since our last evaluation, as the first replacement unit was defective and may have caught fire. The current unit was installed circa 2013 and appears to be in continuing good condition. One area of previously burnt wire that was reused in this installation is of concern to us.
4.7	Electric Panel Board	1	EA	\$4,500.00	\$4,500	45	2042	100%	\$8,551	2087	100%	\$25,978				Electrical equipment consists of a 200-amp load center manufactured by GE. It is located in a separate closet away from pool chemicals and appears to be in continuing good condition. A preventive maintenance program should be conducted every five years by a licensed electrician. That maintenance involves inspection of all panel boards and connections, cleaning (where required), thermo graphic scans, and re-torquing connections. (It is important to note that arcing failures occur where connections have loosened as a result of thermal cycling.) Due to the correct location of this panel, we expect the panel to have a normal service life.
4.8	Building Lighting	1	LS	\$9,500.00	\$9,500	30	2027	100%	\$12,465	2057	100%	\$26,146				This category includes exterior, building-mounted carriage lights, flood lights, exhaust fans, ceiling-mounted fans, ceiling-mounted fluorescent tube lighting fixtures, recessed ceiling fixtures, and restroom light bars. All components appear to be in continuing good condition. No problems were reported with lighting.
4.9	Carpeting	55	SY	\$37.00	\$2,035	10	2021	100%	\$2,302	2031	100%	\$2,947	2041	100%	\$3,773	Carpeting in the large room and the guard office of the Community Center is a direct-glue commercial grade. It appears to range from continuing good to fair condition. Some staining was observed.
4.10	Dry Deck Flooring Tiles	660	SF	\$6.25	\$4,125	7	2016	100%	\$4,125	2023	100%	\$4,903	2030	100%	\$5,829	Dry deck flooring is installed in both of the shower rooms. It appears to be in fair condition. We understand that the Board may remove the tiles, but since a decision on this hasn't been made at this time, we are going to continue with the line item. If the tiles are removed, we suggest the use of non-slip coating be used.
4.11	Plumbing Fixtures	1	LS	\$14,500.00	\$14,500	30	2027	100%	\$19,025	2057	100%	\$39,907				This category consists of sinks, commodes, urinals, showers, two of which are handicap accessible, and partitions of the shower rooms. All components appear to be in good to fair condition. The partitions should receive repainting under operations to maintain appearance.
4.12	Kitchen Refurbishment Project	1	LS	\$4,100.00	\$4,100	20	2020	100%	\$4,526	2040	100%	\$7,416				This category includes wall-mounted and base-mounted millwork, refrigerator and microwave. All components appear to be in continuing good condition.
4.13	Metal Overhead Doors	2	LS	\$3,000.00	\$6,000	30	2027	100%	\$7,873	2057	100%	\$16,513				This category includes two, five foot rollup metal doors, manufactured by Overhead Door Corporation, installed in the kitchen. These components appear to be in continuing good condition. They should be replaced in the building siding restoration and have been scheduled as such.
4.14	Storage Sheds	2	EA	\$2,800.00	\$5,600	25	2027	50%	\$3,674	2037	50%	\$4,703				The Community Center building has a storage shed on the west side of the building. This separate building is four by eight feet and consists of two by four wood framing and composite siding. A second storage shed has been added since our last evaluation and is included in this line item.
4.15	Community Center Sign	1	LS	\$2,500.00	\$2,500	25	2022	100%	\$2,899	2047	100%	\$5,375				A single, seven by four foot EIFS sign is in front of the Community Center on Meade Drive SW. This sign contains a four by three foot metal inset acrylic cover for community notices and has metal letters on the opposite side. It appears to be in continuing good condition.
4.16	Dumpster Enclosure	1	LS	\$2,100.00	\$2,100	15	2018	100%	\$2,206	2033	100%	\$3,195	2048	100%	\$4,628	The Community Center building has an eight by eleven by six foot wood trash enclosure at the east side of the complex. This fencing is in fair condition. Both the fencing and the gates are reaching the end of their service life.
5 MASTER ASSOCIATION - POOL ELEMENTS																
5.1	Pool Renovation Project	4,366	SF	\$48.00	\$209,568	30	2026	100%	\$268,265	2056	100%	\$562,703				The main swimming pool is an in-ground, cast-in-place concrete structure, measuring approximately 4,052 square feet. The wading pool is approximately 314 square feet. They appear to be constructed on a cut-and-fill site. We were not able to observe the pools since they were covered for the season. Management reported no problems at this time. Most outdoor pools of this type, in this area, require a major renovation between thirty and forty years of age. It is prudent to plan for structural renovation now because of the large expense involved if required.
5.2	Pool White Coat	4,366	SF	\$5.50	\$24,013	7	2016	100%	\$24,013	2023	100%	\$28,544	2033	100%	\$36,539	The pool white coat condition could not be examined since the pool was covered for the season. We have verified with Management that the white coat was last applied circa 2009, according to their records. We are scheduling a near-term white coating project.
5.3	Pool Coping	352	LF	\$34.00	\$11,968	3	2016	5%	\$598	2017	5%	\$613	2019	5%	\$644	Standard cast stone bullnose coping is installed around the perimeter of the pools. The coping tiles were not evaluated, since the pool was covered for the season. We have scheduled an allowance throughout the study period to address replacements of cracked, loose, or "hollow" tiles. This work should be completed at the end of the season to prevent water infiltration during winter months.
5.4	Pool Fencing	635	LF	\$24.00	\$15,240	30	2026	100%	\$19,508	2056	100%	\$40,920				453 linear feet of six-foot-high and 182 feet of three-foot-high galvanized, chain link fencing is constructed at the perimeter of the swimming pool deck. The fencing is in good to fair condition with peeling paint observed.
5.5	Pool Perimeter Equipment	1	LS	\$10,500.00	\$10,500	25	2016	68%	\$7,140	2026	100%	\$13,441	2038	66%	\$11,930	Pool perimeter equipment consists of lifeguard stands, stainless steel ladders, and one stainless steel handrail. All components appear to be in good to fair condition. Replacement is scheduled to coincide with the pool renovation project. We understand that the community has, or will be purchasing a large commercial grade umbrella for the pool deck. Cost and timing was provided by Management.

Reserve Fund Plan for
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COMPONENT DATA AND
ASSET REPLACEMENT SCHEDULE

TABLE 1
2016 Through 2035



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	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
5.6	Pool Furniture	1	LS	\$23,000.00	\$23,000	10	2024	100%	\$28,023	2034	100%	\$35,872	2044	100%	\$45,919	Pool furniture consists of umbrellas and bases, lounge chairs, metal and acrylic top tables, painted metal tables, chairs, a barbeque, large picnic tables, lane markers with storage roller, and a Splash Slam basketball unit. We understand that most equipment was recently replaced circa 2014. This included replacing all picnic tables on the pool deck. All equipment was stacked and put away for the season, but appears to be in continuing good condition.
5.7	Pool Pump & Filters	1	LS	\$18,500.00	\$18,500	15	2021	100%	\$20,931	2036	100%	\$30,314	2051	100%	\$43,904	The main pool is served by an A. O. Smith 7.5hp electric motor driving a metal pump and strainer assembly. The pool is filtered by four Triton II TR-100C, permanent media filters. The equipment appears to be in good condition. 2006/2007 was stamped on the sand filters. The system had been decommissioned for the season.
5.8	Pool Chlorinator	2	EA	\$650.00	\$1,300	10	2021	100%	\$1,471	2031	100%	\$1,883	2041	100%	\$2,410	Chlorination system consists of two Flex-Flow units and the equipment appears to be in fair to good condition.
5.9	Phase Converter	1	EA	\$7,000.00	\$7,000	30	2026	100%	\$8,961	2056	100%	\$18,795				The main pool pump electrical service is controlled by a Arco Electric rotary-phase converter. The equipment appears to be in continuing good condition.
5.10	Wading Pool Pump & Filter	1	LS	\$2,300.00	\$2,300	10	2018	100%	\$2,416	2028	100%	\$3,093	2038	100%	\$3,960	The wading pool is served by a Hayward, 3/4 hp electric motor driving a plastic pump and strainer assembly. The pool is filtered by a Triton TR-60, permanent media filter. The equipment appears to be in fair condition. Date stamp on the filter is 2006.
5.11	Pool Covers	4,566	SF	\$3.75	\$17,123	10	2020	100%	\$18,900	2030	100%	\$24,194	2040	100%	\$30,970	Both pools have covers and hardware, used during the off season. The covers are in generally good to fair condition and have some small tears in the fabric and missing spring tensioners, which should be repaired to extend the service life.
6 TOWNHOME ASSOCIATION - ASPHALT COMPONENTS																
6.1	Asphalt Restoration Project	10,878	SY	\$12.00	\$130,536	18	2034	100%	\$203,592	2052	100%	\$317,533				This component includes asphalt driveways and parking bays for the townhome section of the community. Neither the depth nor the sub-base of the pavement could be visually determined. The pavement was restored this year and is in excellent condition. No deflection or cracking was observed. The cost is based on edgemoiling and a 1-1/2" overlay. A full service life is dependent on preventative maintenance being performed as suggested in the Preventive Maintenance section of the report and scheduled in Items 6.2 and 6.3 below. See the Asphalt Pavement Report, Section 7, for additional details.
6.2	Asphalt Seal Coat	10,878	SY	\$1.20	\$13,054	6	2022	100%	\$15,138	2028	100%	\$17,556	2040	100%	\$23,610	The pavement, appropriately, does not appear to have been seal coated since the latest restoration project. Seal coating 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 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.
6.3	Asphalt Repair Allowance	1	LS	\$8,500.00	\$8,500	6	2022	25%	\$2,464	2028	50%	\$5,716	2034	100%	\$13,257	No deflected pavement (indicative of sub-base damage), longitudinal or transverse cracking were observed. Future repairs are essential in order to achieve the projected remaining service life of the pavement. Full-depth repairs and crack filling are scheduled every six years throughout the study period, including the year of the asphalt restoration project. See the Asphalt Pavement Report, Section 7, for additional details.
7 TOWNHOME ASSOCIATION - CONCRETE COMPONENTS																
7.1	Concrete Sidewalks	18,136	SF	\$11.50	\$208,564	5	2016	2%	\$4,171	2021	3%	\$7,079	2028	3%	\$8,415	Concrete sidewalks, generally 4' wide, are present on one or both sides of streets within the townhomes. Their thickness could not be visually determined. They are in generally good condition. About 272 square feet (1.4% of the total area) is either cracked, settled or heaved between sections. In some cases, the differential height of adjacent surfaces may be a tripping hazard. This is especially true at the driveway apron and sidewalk panel intersections. We have not scheduled replacement of all sections with lesser surface defects. 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. Any trip hazards or hazardous surface deficiencies should be addressed as soon as practicable to prevent personal injury.
7.2	Concrete Curbs & Gutters	6,976	LF	\$36.00	\$251,136	5	2021	2%	\$5,683	2026	2%	\$6,430	2031	2%	\$7,274	The driveways and parking bays are lined with standard-profile, cast-in-place, concrete curbs and gutters. They are in continuing good condition with less than 1% of the length exhibiting transverse cracks or settled sections. Minor chips usually do not justify replacement. Cyclic repairs are scheduled, as full replacement at one time is not appropriate or anticipated. Curb repairs are scheduled to coincide with work on other concrete components to maximize economies of scale. Any trip hazards or hazardous surface deficiencies should be addressed as soon as practicable to prevent personal injury.
7.3	Concrete Driveway Aprons	6,318	SF	\$12.50	\$78,975	5	2021	3%	\$2,681	2026	6%	\$6,066	2031	6%	\$6,863	Many of the townhomes in the community have concrete driveway aprons, typically six feet in depth. They appear in continuing good condition with less than 1% of cracked or settled sections observed. Concrete apron repairs are scheduled to coincide with work on other concrete components to maximize economies of scale. Any trip hazards or hazardous surface deficiencies should be addressed as soon as practicable to prevent personal injury.
8 TOWNHOME ASSOCIATION - SITE FEATURES																
8.1	Street and Informational Signage	42	EA	\$155.00	\$6,510	20	2036	100%	\$10,667	2056	100%	\$17,480				Standard metal traffic, parking and access control signs, typically 12" by 18" and mounted on perforated metal posts, are located throughout the townhome section. Other signs, such as stop signs, are mounted on 4" by 4" timber posts. A total of approximately 42 total signs are installed. Posts and signs were replaced circa 2015 and are in continuing good condition.

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
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CALENDAR OF EXPENDITURES

TABLE 2
 2016 Through 2035



YEAR	COMPONENT NO.	COMPONENT	PRESENT COST 2016	FUTURE COST (INFLATED)	TOTAL ANNUAL EXPENDITURES	ACTION	
1	2	3	4	5	6	7	
2016						2016	
	2.1	Concrete Sidewalk and Front Patio	\$1,565	\$1,565	TOTAL EXPENDITURES		
	2.5	Concrete Pool Deck	\$15,478	\$15,478			
	3.13	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$10,000			
	4.1	Re-Roofing Project	\$14,994	\$14,994			
	4.3	Wood & Vinyl Trim Allowance	\$5,040	\$5,040			
	4.10	Dry Deck Flooring Tiles	\$4,125	\$4,125			
	5.2	Pool White Coat	\$24,013	\$24,013			
	5.3	Pool Coping	\$598	\$598			
	5.5	Pool Perimeter Equipment	\$7,140	\$7,140			
	7.1	Concrete Sidewalks	\$4,171	\$4,171			
						\$87,124	
2017						2017	
	3.13	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$10,250	TOTAL EXPENDITURES		
	5.3	Pool Coping	\$598	\$613			
						\$10,863	
2018						2018	
	1.2	Asphalt Seal Coat	\$2,470	\$2,595	TOTAL EXPENDITURES		
	1.3	Asphalt Repair Allowance	\$900	\$946			
	3.13	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$10,506			
	4.16	Dumpster Enclosure	\$2,100	\$2,206			
	5.10	Wading Pool Pump & Filter	\$2,300	\$2,416			
						\$18,669	
2019						2019	
	3.5	Timber Retaining Wall	\$1,632	\$1,757	TOTAL EXPENDITURES		
	3.13	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$10,769			
	5.3	Pool Coping	\$598	\$644			
						\$13,171	
2020						2020	
	3.7	Tennis Court Color Coat	\$11,000	\$12,142	TOTAL EXPENDITURES		
	3.10	Multi-Purpose Court Color Coat	\$3,000	\$3,311			
	3.13	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$11,038			
	4.12	Kitchen Refurbishment Project	\$4,100	\$4,526			
	5.3	Pool Coping	\$598	\$661			
	5.11	Pool Covers	\$17,123	\$18,900			
						\$50,578	
2021						2021	
	2.1	Concrete Sidewalk and Front Patio	\$1,565	\$1,771	TOTAL EXPENDITURES		
	2.5	Concrete Pool Deck	\$15,478	\$17,511			
	3.2	Entrance Monument Lighting	\$6,000	\$6,788			
	3.13	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$11,314			
	4.3	Wood & Vinyl Trim Allowance	\$4,200	\$4,752			
	4.5	Door Allowance	\$2,475	\$2,800			
	4.9	Carpeting	\$2,035	\$2,302			
	5.7	Pool Pump & Filters	\$18,500	\$20,931			
	5.8	Pool Chlorinator	\$1,300	\$1,471			
	7.1	Concrete Sidewalks	\$6,257	\$7,079			
	7.2	Concrete Curbs & Gutters	\$5,023	\$5,683			
	7.3	Concrete Driveway Aprons	\$2,369	\$2,681			
						\$85,083	
2022						2022	
	3.13	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$11,597	TOTAL EXPENDITURES		
	4.15	Community Center Sign	\$2,500	\$2,899			
	5.3	Pool Coping	\$598	\$694			
	6.2	Asphalt Seal Coat	\$13,054	\$15,138			
	6.3	Asphalt Repair Allowance	\$2,125	\$2,464			

Reserve Fund Plan for
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CALENDAR OF EXPENDITURES

TABLE 2
 2016 Through 2035



YEAR	COMPONENT NO.	COMPONENT	PRESENT COST 2016	FUTURE COST (INFLATED)	TOTAL ANNUAL EXPENDITURES	ACTION
1	2	3	4	5	6	7
					\$32,793	
2023					2023	
	3.13	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$11,887	TOTAL EXPENDITURES	
	4.10	Dry Deck Flooring Tiles	\$4,125	\$4,903		
	5.2	Pool White Coat	\$24,013	\$28,544		
	5.3	Pool Coping	\$598	\$711		
					\$46,045	
2024					2024	
	1.2	Asphalt Seal Coat	\$2,470	\$3,009	TOTAL EXPENDITURES	
	1.3	Asphalt Repair Allowance	\$1,800	\$2,193		
	3.13	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$12,184		
	5.6	Pool Furniture	\$23,000	\$28,023		
					\$45,409	
2025					2025	
	3.7	Tennis Court Color Coat	\$11,000	\$13,737	TOTAL EXPENDITURES	
	3.10	Multi-Purpose Court Color Coat	\$3,000	\$3,747		
	3.13	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$12,489		
					\$29,973	
2026					2026	
	2.1	Concrete Sidewalk and Front Patio	\$1,565	\$2,003	TOTAL EXPENDITURES	
	2.5	Concrete Pool Deck	\$15,478	\$19,813		
	3.13	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$12,801		
	5.1	Pool Renovation Project	\$209,568	\$268,265		
	5.4	Pool Fencing	\$15,240	\$19,508		
	5.5	Pool Perimeter Equipment	\$10,500	\$13,441		
	5.9	Phase Converter	\$7,000	\$8,961		
	7.2	Concrete Curbs & Gutters	\$5,023	\$6,430		
	7.3	Concrete Driveway Aprons	\$4,739	\$6,066		
					\$357,286	
2027					2027	
	1.4	Asphalt Footpaths	\$191,880	\$251,763	TOTAL EXPENDITURES	
	3.13	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$13,121		
	4.2	Vinyl Siding	\$11,519	\$15,114		
	4.3	Wood & Vinyl Trim Allowance	\$12,600	\$16,532		
	4.4	Windows	\$8,550	\$11,218		
	4.8	Building Lighting	\$9,500	\$12,465		
	4.11	Plumbing Fixtures	\$14,500	\$19,025		
	4.13	Metal Overhead Doors	\$6,000	\$7,873		
	4.14	Storage Sheds	\$2,800	\$3,674		
					\$350,785	
2028					2028	
	3.13	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$13,449	TOTAL EXPENDITURES	
	5.10	Wading Pool Pump & Filter	\$2,300	\$3,093		
	6.2	Asphalt Seal Coat	\$13,054	\$17,556		
	6.3	Asphalt Repair Allowance	\$4,250	\$5,716		
	7.1	Concrete Sidewalks	\$6,257	\$8,415		
					\$48,228	
2029					2029	
	3.13	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$13,785	TOTAL EXPENDITURES	
	5.3	Pool Coping	\$598	\$825		
					\$14,610	
2030					2030	
	1.1	Asphalt Restoration Project	\$24,696	\$34,895	TOTAL EXPENDITURES	
	1.3	Asphalt Repair Allowance	\$3,600	\$5,087		
	2.2	Concrete Wheelstops	\$3,618	\$5,112		
	2.3	Concrete Dumpster Pad	\$1,000	\$1,413		

Reserve Fund Plan for
GREENWAY FARMS HOMEOWNERS ASSOCIATION
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CALENDAR OF EXPENDITURES

TABLE 2
 2016 Through 2035



YEAR	COMPONENT NO.	COMPONENT	PRESENT COST 2016	FUTURE COST (INFLATED)	TOTAL ANNUAL EXPENDITURES	ACTION
1	2	3	4	5	6	7
	3.6	Tennis Court Restoration Project	\$50,000	\$70,649		
	3.8	Tennis Court Fencing	\$10,560	\$14,921		
	3.9	Multi-Purpose Court Restoration Project	\$20,000	\$28,259		
	3.11	Baseketball Goals	\$5,000	\$7,065		
	3.13	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$14,130		
	4.10	Dry Deck Flooring Tiles	\$4,125	\$5,829		
	5.11	Pool Covers	\$17,123	\$24,194		
					\$211,553	
2031					2031	
	2.1	Concrete Sidewalk and Front Patio	\$1,565	\$2,266	TOTAL EXPENDITURES	
	2.5	Concrete Pool Deck	\$15,478	\$22,416		
	3.2	Entrance Monument Lighting	\$6,000	\$8,690		
	3.13	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$14,483		
	4.3	Wood & Vinyl Trim Allowance	\$4,200	\$6,083		
	4.5	Door Allowance	\$4,950	\$7,169		
	4.9	Carpeting	\$2,035	\$2,947		
	5.8	Pool Chlorinator	\$1,300	\$1,883		
	7.1	Concrete Sidewalks	\$6,257	\$9,062		
	7.2	Concrete Curbs & Gutters	\$5,023	\$7,274		
	7.3	Concrete Driveway Aprons	\$4,739	\$6,863		
					\$89,136	
2032					2032	
	3.4	Metal Railings	\$27,090	\$40,215	TOTAL EXPENDITURES	
	3.13	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$14,845		
	5.3	Pool Coping	\$598	\$888		
					\$55,949	
2033					2033	
	3.13	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$15,216	TOTAL EXPENDITURES	
	4.6	Water Heater	\$4,800	\$7,304		
	4.16	Dumpster Enclosure	\$2,100	\$3,195		
	5.2	Pool White Coat	\$24,013	\$36,539		
					\$62,254	
2034					2034	
	3.13	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$15,597	TOTAL EXPENDITURES	
	5.6	Pool Furniture	\$23,000	\$35,872		
	6.1	Asphalt Restoration Project	\$130,536	\$203,592		
	6.3	Asphalt Repair Allowance	\$8,500	\$13,257		
					\$268,317	
2035					2035	
	3.7	Tennis Court Color Coat	\$11,000	\$17,585	TOTAL EXPENDITURES	
	3.10	Multi-Purpose Court Color Coat	\$3,000	\$4,796		
	3.13	Tree Trimming, Removal, & Replacement Allowanc	\$10,000	\$15,987		
	5.3	Pool Coping	\$598	\$957		
					\$39,324	

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.

Reserve Fund Plan for
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CURRENT FUNDING ANALYSIS
CASH FLOW METHOD
TABLE 3



Beginning Reserve Fund Balance: **362,000** Annual Contribution To Reserves: **80,000** Contribution Percentage Increase: **2.50%** Annual Inflation Factor: **2.50%** Annual Interest Income Factor: **1.00%**

In Dollars

YEAR	TOTAL ASSET BASE	BEGINNING RESERVE FUND BALANCE	ANNUAL CONTRIBUTION	INTEREST INCOME	CAPITAL EXPENDITURES	ENDING RESERVE FUND BALANCE
1	2	3	4	5	6	7
2016	1,873,182	362,000	80,000	3,599	87,123	358,476
2017	1,920,011	358,476	82,000	3,988	10,863	433,600
2018	1,968,012	433,600	84,050	4,711	18,669	503,693
2019	2,017,212	503,693	86,151	5,457	13,170	582,131
2020	2,067,642	582,131	88,305	6,053	50,578	625,911
2021	2,119,333	625,911	90,513	6,318	85,083	637,659
2022	2,172,317	637,659	92,775	6,732	32,792	704,375
2023	2,226,625	704,375	95,095	7,343	46,045	760,767
2024	2,282,290	760,767	97,472	7,926	45,409	820,757
2025	2,339,348	820,757	99,909	8,626	29,973	899,318
2026	2,397,831	899,318	102,407	7,653	357,288	652,090
2027	2,457,777	652,090	104,967	5,218	350,785	411,490
2028	2,519,221	411,490	107,591	4,457	48,229	475,308
2029	2,582,202	475,308	110,281	5,295	14,610	576,274
2030	2,646,757	576,274	113,038	5,256	211,554	483,014
2031	2,712,926	483,014	115,864	4,998	89,136	514,740
2032	2,780,749	514,740	118,760	5,513	55,948	583,065
2033	2,850,268	583,065	121,729	6,181	62,254	648,722
2034	2,921,524	648,722	124,773	5,739	268,318	510,916
2035	2,994,563	510,916	127,892	5,614	39,325	605,097

STUDY PERIOD TOTALS

2,043,573 116,676 1,917,152

Reserve Fund Plan for
**GREENWAY FARMS HOMEOWNERS
 ASSOCIATION**
 Leesburg, VA

ALTERNATIVE FUNDING ANALYSIS
CASH FLOW METHOD
 HYBRID APPROACH
TABLE 3.1



Beginning Reserve Fund Balance: **362,000** Annual Contribution To Reserves: **80,000 in 2015** Contribution Percentage Increase: **2.50%** Annual Inflation Factor: **2.50%** Annual Interest Income Factor: **1.00%**

In Dollars

YEAR	TOTAL ASSET BASE	BEGINNING RESERVE FUND BALANCE	ANNUAL CONTRIBUTION	INTEREST INCOME	CAPITAL EXPENDITURES	ENDING RESERVE FUND BALANCE
1	2	3	4	5	6	7
2016	1,873,182	362,000	87,050	3,637	87,123	365,564
2017	1,920,011	365,564	94,100	4,125	10,863	452,926
2018	1,968,012	452,926	101,150	4,998	18,669	540,405
2019	2,017,212	540,405	103,679	5,921	13,170	636,835
2020	2,067,642	636,835	106,271	6,701	50,578	699,228
2021	2,119,333	699,228	108,927	7,155	85,083	730,227
2022	2,172,317	730,227	111,651	7,765	32,792	816,850
2023	2,226,625	816,850	114,442	8,578	46,045	893,825
2024	2,282,290	893,825	117,303	9,370	45,409	975,090
2025	2,339,348	975,090	120,236	10,286	29,973	1,075,639
2026	2,397,831	1,075,639	123,241	9,537	357,288	851,129
2027	2,457,777	851,129	126,322	7,334	350,785	634,000
2028	2,519,221	634,000	129,481	6,811	48,229	722,063
2029	2,582,202	722,063	132,718	7,896	14,610	848,066
2030	2,646,757	848,066	136,036	8,111	211,554	780,659
2031	2,712,926	780,659	139,436	8,117	89,136	839,076
2032	2,780,749	839,076	142,922	8,902	55,948	934,952
2033	2,850,268	934,952	146,495	9,851	62,254	1,029,044
2034	2,921,524	1,029,044	150,158	9,698	268,318	920,582
2035	2,994,563	920,582	153,912	9,871	39,325	1,045,040

STUDY PERIOD TOTALS

2,445,529 **154,663** **1,917,152**

FULLY FUNDED BALANCE GOAL



FUNDING ANALYSIS COMPONENT METHOD TABLE 4 EXPLANATION

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

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

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

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

COMPONENT METHOD SUMMARY

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

Reserve Fund Plan for
**GREENWAY FARMS HOMEOWNERS
 ASSOCIATION**
 Leesburg, VA

**FUNDING ANALYSIS
 COMPONENT METHOD**
 TABLE 4

Beginning Reserve Fund Balance:

In Dollars **362,000**

Component Number	COMPONENT	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
4.16	Dumpster Enclosure	436	436	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197	286	286	286
5 MASTER ASSOCIATION - POOL ELEMENTS																					
5.1	Pool Renovation Project	13,694	13,694	13,694	13,694	13,694	13,694	13,694	13,694	13,694	13,694	16,078	16,078	16,078	16,078	16,078	16,078	16,078	16,078	16,078	16,078
5.2	Pool White Coat	10,924	3,935	3,935	3,935	3,935	3,935	3,935	3,473	3,473	3,473	3,473	3,473	3,473	3,473	3,473	3,473	3,473	5,988	5,988	5,988
5.3	Pool Coping	776	319	319	657	343	343	707	133	133	133	133	133	133	292	292	292	314	314	314	338
5.4	Pool Fencing	996	996	996	996	996	996	996	996	996	996	1,169	1,169	1,169	1,169	1,169	1,169	1,169	1,169	1,169	1,169
5.5	Pool Perimeter Equipment	3,799	1,277	1,277	1,277	1,277	1,277	1,277	1,277	1,277	1,277	935	935	935	935	935	935	935	935	935	935
5.6	Pool Furniture	2,856	2,856	2,856	2,856	2,856	2,856	2,856	2,856	3,409	3,409	3,409	3,409	3,409	3,409	3,409	3,409	3,409	3,409	3,409	4,364
5.7	Pool Pump & Filters	2,138	2,138	2,138	2,138	2,138	1,872	1,872	1,872	1,872	1,872	1,872	1,872	1,872	1,872	1,872	1,872	1,872	1,872	1,872	1,872
5.8	Pool Chlorinator	182	182	182	182	182	179	179	179	179	179	179	179	179	179	179	229	229	229	229	229
5.9	Phase Converter	457	457	457	457	457	457	457	457	457	457	537	537	537	537	537	537	537	537	537	537
5.10	Wading Pool Pump & Filter	516	516	294	294	294	294	294	294	294	294	294	294	376	376	376	376	376	376	376	376
5.11	Pool Covers	2,615	2,615	2,615	2,615	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,944	2,944	2,944	2,944	2,944	2,944
6 TOWNHOME ASSOCIATION - ASPHALT COMPONENTS																					
6.1	Asphalt Restoration Project	10,319	10,319	10,319	10,319	10,319	10,319	10,319	10,319	10,319	10,319	10,319	10,319	10,319	10,319	10,319	10,319	10,319	10,319	10,319	16,095
6.2	Asphalt Seal Coat	2,447	2,447	2,447	2,447	2,447	2,447	2,838	2,838	2,838	2,838	2,838	2,838	1,851	1,851	1,851	1,851	1,851	1,851	1,851	1,851
6.3	Asphalt Repair Allowance	398	398	398	398	398	398	924	924	924	924	924	924	2,143	2,143	2,143	2,143	2,143	2,143	2,143	621
7 TOWNHOME ASSOCIATION - CONCRETE COMPONENTS																					
7.1	Concrete Sidewalks	2,564	1,380	1,380	1,380	1,380	1,160	1,160	1,160	1,160	1,160	1,160	1,160	2,974	2,974	2,974	1,999	1,999	1,999	1,999	1,999
7.2	Concrete Curbs & Gutters	1,108	1,108	1,108	1,108	1,108	1,254	1,254	1,254	1,254	1,254	1,418	1,418	1,418	1,418	1,418	1,605	1,605	1,605	1,605	1,605
7.3	Concrete Driveway Aprons	523	523	523	523	523	1,183	1,183	1,183	1,183	1,183	1,338	1,338	1,338	1,338	1,338	1,514	1,514	1,514	1,514	1,514
8 TOWNHOME ASSOCIATION - SITE FEATURES																					
8.1	Street and Informational Signage	482	482	482	482	482	482	482	482	482	482	482	482	482	482	482	482	482	482	482	482
ANNUAL COMPONENT CONTRIBUTION TOTALS		137,330	110,950	110,687	111,180	110,849	113,957	115,491	114,878	116,032	115,062	118,552	119,631	122,094	122,595	126,451	125,527	126,781	129,955	135,552	138,784

COMPONENT METHOD SUMMARY	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
BEGINNING RESERVE FUND BALANCE	362,000	416,590	521,465	619,323	724,158	792,307	829,759	921,421	1,000,135	1,081,436	1,178,014	951,757	730,814	812,684	929,499	854,421	900,077	980,641	1,058,900	937,508
PLUS ANNUAL COMPONENT CONTRIBUTION	137,330	110,950	110,687	111,180	110,849	113,957	115,491	114,878	116,032	115,062	118,552	119,631	122,094	122,595	126,451	125,527	126,781	129,955	135,552	138,784
CAPITAL EXPENDITURES	87,123	10,863	18,669	13,170	50,578	85,083	32,792	46,045	45,409	29,973	357,288	350,785	48,229	14,610	211,554	89,136	55,948	62,254	268,318	39,325
SUBTOTAL	412,207	516,677	613,483	717,333	784,429	821,181	912,458	990,254	1,070,758	1,166,525	939,278	720,603	804,679	920,669	844,396	890,812	970,910	1,048,342	926,134	1,036,967
PLUS INTEREST INCOME @ 1.00%	4,383	4,788	5,840	6,826	7,877	8,579	8,963	9,881	10,678	11,489	12,478	10,211	8,005	8,830	10,025	9,265	9,731	10,558	11,374	10,172
FULLY FUNDED RESERVE FUND BALANCE	416,590	521,465	619,323	724,158	792,307	829,759	921,421	1,000,135	1,081,436	1,178,014	951,757	730,814	812,684	929,499	854,421	900,077	980,641	1,058,900	937,508	1,047,139

PERCENT FUNDED FOR CURRENT CYCLE **73%**

TOTAL EXPENDITURES **1,917,152**

TOTAL CONTRIBUTIONS **2,422,338**

STUDY PERIOD TOTAL INTEREST **179,953**

AVERAGE ANNUAL CONTRIBUTION **121,117**



**PHOTOGRAPHS
WITH
DESCRIPTIVE
NARRATIVES**



MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.



PHOTO #1
The asphalt drivelane and parking bays at the community center are in continuing good condition. Pavement maintenance such as full-depth repairs, crack filling, and seal coating should continue every six years.



PHOTO #2
A majority of the asphalt footpaths are in good to excellent condition. Some transverse cracking was observed.



PHOTO #3
Cracking of the retaining wall at the pool, which helps to support the pool fencing continues to require repair.

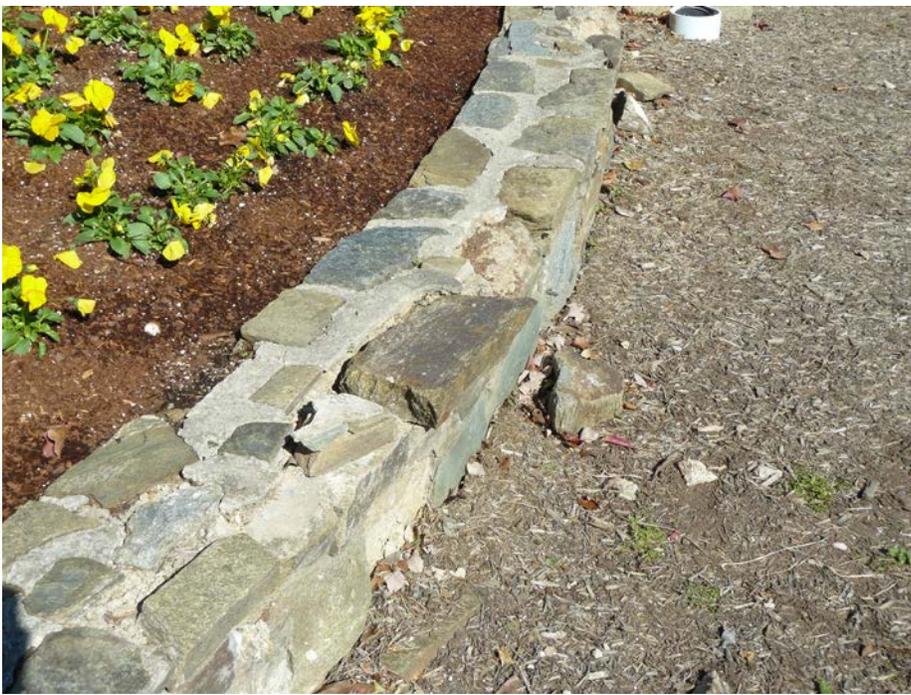


PHOTO #4
Significant deterioration of both entrance monument walls were observed, requiring repair.



PHOTO #5
The tennis courts and the multipurpose court are in continuing good condition.



PHOTO #6
We understand that the roofing and facade railing of the community center building will be replaced near-term.



PHOTO #7
We are concerned with the heat damaged service wire, which was reused during the latest water heater replacement project. The wiring should be replaced.



PHOTO #8
The plumbing fixtures, lighting, and electrical throughout the community center is in continuing good condition. The partitions of the bathhouses should be repainted.



PHOTO #9
The dumpster fencing is nearing the end of its service life, requiring near-term replacement.



PHOTO #10

No problems were reported with either pool. The pool covers and pool perimeter equipment appear to be in fair to continuing good condition. Note: We were not able to evaluate either pool shell or white coat.



PHOTO #11

The pool furniture was recently replaced, including the outdoor tables. All equipment appears to be in continuing good condition.



PHOTO #12

The main pool pump, metal strainer assembly, and the phase converter have been in service for several years, but appear to be in continuing serviceable condition.



PHOTO #13

The wading pool pump and filter have also been in service for several years, and appear to be nearing the end of their service lives.



PHOTO #14

The townhome asphalt streets and parking bays, along with the street signage were recently restored and now appear to be in like new condition.



PHOTO #15

Several concrete sidewalk panels have settled at some driveway aprons at the townhomes, requiring near-term repair/replacement.