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MEMBER OF community ASSOCIATIONS INSTITUTE

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Mt. Woodley Manor Reserve Near-term Funding Summary – February 20, 2015

Principal Findings: The common assets appear to be in overall fair to good condition. The community is approaching a 35-year benchmark in terms of replacement of major systems. The asphalt drivelanes and parking bays are in poor condition and for the most part, the drivelanes are failing. They are exhibiting a significant amount of deflection, longitudinal and transverse cracking, and in some cases, delamination of the last overlay. The streets and parking bays require restoration, which should include full milling to a minimum depth of two inches and replacement of asphalt, near-term. However, there isn't sufficient reserve funding for restoration at this time. An alternative is to perform pavement maintenance such as full-depth repair, crack filling, and seal coating, but a majority of the base will continue to fail and would only delay the restoration by a few years, while spending unnecessary reserve funds. We suggest that the community hold off on repairs for three years and do a proper restoration of the streets and parking bays as soon as funding will allow. Pavement maintenance such as full-depth repair, crack filling, and seal coating every six years is critical in order for asphalt to reach a typical service life of 18 years in Northern Virginia. Future pavement maintenance has been scheduled.

2018 Cost: Asphalt restoration with milling, asphalt replacement, and striping: $88,001 + Asphalt repair allowance $8,400 = Total cost $96,401

Note: This cost should include hauling away and disposal of old asphalt

Although some cyclic concrete work has been recently completed, there still remains a small quantity of cracked, settled and/or heaved concrete sidewalks, which are potential tripping hazards. The liability and costs associated with personal injury lawsuits resulting primarily from sidewalk and curb tripping hazards are too great to defer repair. This repair should include leveling and replacement of cracked walkway pavers. 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 and walkway pavers as soon as practicable.

2015 Cyclic concrete sidewalk repair allowance: $2,283 + concrete curb and gutter repair $2,517 + walkway paver repair allowance $6,288 = Total cyclic concrete repair allowance = $11,088.
Site features such as the entrance signage, wood fencing, street signage, mailbox modules, and the tot lots, range from fair to good condition. A minor amount of erosion was observed, which can eventually be repaired under the Storm Water Drainage System Allowance.

Currently, the reserve fund requires a significant single increase to get to the point where annual inflationary adjustments will achieve the fully funded goal at the end of twenty years. Because the contribution levels and the current reserve fund balance are low, optional stepped funding solutions are not appropriate, due to the immediate need for pavement restoration. It is of our opinion that reserve funding should be increased to the appropriate level near-term to avoid special assessments. In order to achieve this goal the Association should increase the annual contribution in FY2015 from $4,000 to $18,387, and plan on annual increases of 2.5% to reflect inflation thereafter. This represents an increase from $4.76 to $21.89 (a net increase of $17.13) per residential unit, per month (based on 70 units).

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CAPITAL RESERVE ANALYSTS, INC.

MEMBER OF community ASSOCIATIONS INSTITUTE

Condition Assessment
&
Reserve Fund Plan
FY2015

Mt. Woodley Manor

Alexandria, Virginia

Prepared for:
The Board of Directors
&
Jeffrey Charles & Associates

MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.

MEMBER OF community ASSOCIATIONS INSTITUTE

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February 6, 2015

Ms. Sarinda Ly, Community Manager
Jeffery Charles and Associates
6422 Grovedale Drive, Suite 201C
Alexandria, Virginia 22310

RE: CONDITION ASSESSMENT AND RESERVE FUND PLAN FY2015
Mt. Woodley Manor Homeowners Association
Alexandria, Virginia
Project No. 7626

Dear Ms. Ly:

Mason & Mason Capital Reserve Analysts, Inc. has completed the report for Mt. Woodley Manor.

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

We genuinely appreciate the opportunity to 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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RESERVE FUND PLAN

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 Mt. Woodley Manor's Reserve Fund Plan. Each is discussed in greater detail in the body of the report. We encourage the reader to "go deeper" into the report, and we have written it in a way that's understandable to a first-time reader.

Analyzing the capital reserves reveals that:

- The reserve fund is approximately 36% funded through FY2014. Our goal is to become fully funded by the end of the 20-year period (FY2034).

In order to achieve this goal the Association should:

- Increase the annual contribution in FY2015 from $4,000 to $18,387, and plan on annual increases of 2.5% to reflect inflation thereafter.
- This represents an increase from $4.76 to $21.89 (a net increase of $17.13) per residential unit, per month (based on 70 units).

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

VISUAL EVALUATION METHODOLOGY

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

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

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

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

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

1. INTRODUCTION

1.1 Background: Mt. Woodley Manor Homeowners Association is comprised of 70 townhomes, located on Sherwood Hall Lane in Alexandria, Virginia. The community was constructed circa 1981. Four private streets, Mount Woodley Place, the parking areas and drivelane adjacent to Sherwood Hall Lane, Manor Haven Court, and Woodwalk Court are within the community. The street layout includes concrete sidewalks, curbs and gutters, and 17 parking bays providing 141 spaces. Other common components include walkway pavers, entrance signage, wood fencing, street signage, mailbox modules, and two tot lots.

We are providing the Condition Assessment and Reserve Fund Plan based on Proposal Acceptance Agreement No. 7626 dated January 14, 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.

James G. Mason III, R. S. conducted the field evaluation for this report on January 20, 2015. We met with Ms. Angela Layman, Association President, who gave us a tour and reviewed components and other documentation with us. The weather was overcast and the temperature was approximately 41 degrees F. Precipitation had not occurred for several days prior to the site visit. The pavements, walkways, and grounds were generally dry and clean of debris.

1.2 Principal Findings: The common assets appear to be in overall fair to good condition. The community is approaching a 35-year benchmark in terms of replacement of major systems. The asphalt drivelanes and parking bays are in poor condition, and for the most part, the drivelanes are failing. They are exhibiting a significant amount of deflection, longitudinal and transverse cracking, and in some cases, delamination of the last overlay. The streets and parking bays require restoration, which should include full milling to a minimum depth of two inches and replacement of asphalt, near-term. However, there isn't sufficient reserve funding for restoration at this time. An alternative is to perform pavement maintenance such as full-depth repair, crack filling, and seal coating, but a majority of the base will continue to fail and would only delay the restoration by a few years, while spending unnecessary reserve funds. We suggest that the community hold off on repairs for three years and do a proper restoration of the streets and parking bays as soon as funding will allow. Pavement maintenance such as full-depth repair, crack filling, and seal coating every six years is critical in order for asphalt to reach a typical service life of 18 years in Northern Virginia. Future pavement maintenance has been scheduled.

Although some cyclic concrete work has been recently completed, there still remains a small quantity of cracked, settled and/or heaved concrete sidewalks, which are potential tripping hazards. The liability and costs associated with personal injury lawsuits resulting primarily from sidewalk and curb tripping hazards are too great to defer repair. This repair should include leveling and replacement of cracked walkway pavers. 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 and walkway pavers as soon as practicable.

Site features such as the entrance signage, wood fencing, street signage, mailbox modules, and the tot lots, range from fair to good condition. A minor amount of erosion was observed, which can eventually be repaired under the Storm Water Drainage System Allowance.

Currently, the reserve fund requires a significant single increase to get to the point where annual inflationary adjustments will achieve the fully funded goal at the end of twenty years. Because the contribution levels and the current reserve fund balance are low, optional stepped funding solutions are not appropriate, due to the immediate need for pavement restoration. It is of our opinion that reserve funding should be increased to the appropriate level near-term to avoid special assessments.

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 fiscal year of April 1, 2014 to March 31, 2015. Management reported that the un-audited reserve fund balance, including cash and securities, as of March 31, 2015, is projected to be $39,145. 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 $277,424.

2.2 Current Funding Analysis, Cash Flow Method (Table 3): The FY2014 annual contribution to reserves has been set at $4,000 with a presumed 2.5% annual increase. At this level, the total for all annual contributions for the twenty-year period would be $102,179, and the total interest income is projected to be $1,656. This funding results in the depletion of the reserve fund by FY2018 (The year of the asphalt restoration project).

2.3 Alternative Funding Analysis, Cash Flow Method, Hybrid Approach (Table 3.1): This plan provides the annual contributions necessary to maintain balances more consistent with the fully funded goal by increasing the annual contribution to $18,387 in FY2015 and providing an annual escalation factor of 2.50%, matching inflation thereafter. This plan allows for a gradual increase over time after the initial increase, and addresses generational equity issues. The total for all annual contributions for the twenty-year period would be $469,679, and the total interest income is projected to be $27,975. The fully funded balance in FY2034 is $259,375.

2.4 Funding Analysis, Component Method (Table 4): This method of funding would require variable annual contributions, averaging $22,789 over the twenty-year period. The total for all annual contributions would be $455,777, and the total interest income is projected to be $41,877. The fully funded balance in FY2034 is $259,375. 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 edgemill and overlay process includes milling the edges of the pavement at the concrete gutter and feathering the depth of cut toward the center of the drive lane. Milling around meter heads and utility features is sometimes required. The typical useful life for an asphalt overlay is twenty years.

6.2 Asphalt Seal Coating: The purpose is to seal and add new life to a roadway surface. It protects the existing pavement but does not add significant structural strength. A surface treatment can range from a single, light application of emulsified asphalt as a "fog" seal, to a multiple-surface course made up of alternate applications of asphalt and fine aggregate. Seal coating of all asphalt pavements should be performed at approximately six-year intervals, or approximately twice during the service life of the asphalt pavement. 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 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.

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

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

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

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

6.10 Tot Lot Equipment and Outdoor Furniture: Little maintenance is necessary on the newer style, pre-finished or painted metal play modules other than periodic safety inspections and repair, re-finishing, or replacement of any worn or damaged components. Bare wood components, both non-treated and pressure-treated, generally will achieve a greater useful service life and improved appearance if preventative maintenance is performed. Periodic pressure washing and sealing with wood preservative is recommended on all wood components. Rough edges and splinters should be sanded prior to sealing. Damaged or deteriorated wood components should be replaced as necessary. Generally, securing or repairing wood components with screws will provide a better fastening method than nails. Tot lot equipment should be inspected frequently for loose components, rough edges, splinters and safety hazards. Tot lot borders should be leveled periodically, and protruding border anchors should be made flush with the timber surface.

7. ASPHALT PAVEMENT REPORT

Street Name	Total SY Asphalt Pavement	SY Full-Depth Repairs	Linear Footage Cracks	Parking Spaces	Parking Bays
Mount Woodley Place	2,634	397	927	49	5
Sherwood Hall Lane	1,438	72	143	32	4
Manor Haven Court	932	70	138	32	4
Woodwalk Court	833	41	83	28	4
TOTALS	5,837	580	1,291	141	17

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 Through 16 **Cycles, Percentage, and Cost** repeat as itemized above. Although not shown on the tables, the cycles continue throughout the study period and beyond.

Column 18 **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.

Reserve Fund Plan for
MT. WOODLEY MANOR HOMEOWNERS ASSOCIATION
Alexandria, Virginia

COMPONENT DATA AND ASSET REPLACEMENT SCHEDULE
TABLE 1
2015 Through 2034

MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.
www.masonreserves.com 800-776-6980 Fax 800-776-6408

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	18
1 ASPHALT COMPONENTS																
1.1	Asphalt Restoration Project	5,837	SY	$14.00	$81,718	18	2018	100%	$88,001	2036	100%	$137,252				This component includes asphalt drivelanes and parking bays of the community. Neither the depth nor the sub-base of the pavement could be visually determined. We understand that the pavement received a previous restoration circa 1995, and it is in poor condition. Approximately 580 square yards of deflective cracking (indicative of sub-base damage or insufficient asphalt depth) were observed on the drivelanes or parking bays. Restoration includes milling to a minimum of 2" depth with 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, which is addressed in component 1.3 below.
1.2	Asphalt Seal Coat	5,837	SY	$1.20	$7,004	6	2024	100%	$8,748	2030	100%	$10,144	2042	100%	$13,643	The pavement does not appear to have been seal coated since initial construction. 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	$7,800.00	$7,800	6	2018	100%	$8,400	2024	25%	$2,435	2030	50%	$5,648	Approximately 580 square yards of alligator cracked or deflected pavement (indicative of sub-base damage), and about 1,291 linear feet of longitudinal or transverse cracking was observed. Repairs are essential in order to achieve the projected service life of the pavement after restoration. 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.
2 CONCRETE COMPONENTS																
2.1	Concrete Sidewalks	9,928	SF	$11.50	$114,172	5	2015	2%	$2,283	2020	3%	$3,875	2025	3%	$4,384	Concrete sidewalks, generally 4' and 6' wide, are present on one or both sides of streets within the community. Their thickness could not be visually determined. They are in generally good condition having had some recent repairs. About 192 square feet (1.9% of the total area) is either cracked, settled or heaved between sections. We have not scheduled replacement of all sections with lesser surface defects. Severely scaled sections will tend to deteriorate more quickly over time and should be replaced in each replacement cycle. Cyclic repairs are scheduled, as full replacement at one time is not appropriate or anticipated. Concrete repairs are scheduled to coincide with work on other concrete components to take advantage of economies of scale in packaging concrete restoration work. The Board should be aware that repairs to small quantities of concrete may be more costly because of the difficulty of attracting competitive bids for small projects, which may not meet contractor minimums. Any trip hazards or hazardous surface deficiencies should be addressed as soon as practicable to prevent personal injury.
2.2	Concrete Curbs & Gutters	3,496	LF	$36.00	$125,856	5	2015	2%	$2,517	2020	2%	$2,848	2025	2%	$3,222	The drivelanes and parking bays are lined with standard-profile, cast-in-place, concrete curbs and gutters. They are in generally good condition with about 1.4% of the length exhibiting transverse cracks or settlement. We observed approximately five damaged sections. Minor chips usually do not justify replacement. Curb paint is in poor condition and curbs can be repainted under the operations budget. Cyclic repairs are scheduled, as full replacement at one time is not appropriate or anticipated. Curb repairs are scheduled to coincide with work on other concrete components to maximize economies of scale. The Board should be aware that repairs to small quantities of concrete may be more costly because of the difficulty of attracting competitive bids for small projects, which may not meet contractor minimums. Any trip hazards or hazardous surface deficiencies should be addressed as soon as practicable to prevent personal injury.
2.3	Walkway Pavers	3,930	SF	$16.00	$62,880	5	2015	10%	$6,288	2020	10%	$7,114	2025	10%	$8,049	Walkways are constructed of 16" x 16" slate style concrete pavers, which are installed throughout the rear of most townhomes to provide trash can and rear yard access. The pavers are in overall good condition, however, about 10% of the pavers are cracked or heaved, causing a height differential and possible tripping hazard. We have budgeted an allowance throughout the study period to address partial replacements and repairs as necessary. Any trip hazards or hazardous surface deficiencies should be addressed as soon as practicable to prevent personal injury.
3 SITE FEATURES																
3.1	Carved Wood Entrance Sign	1	EA	$2,100.00	$2,100	15	2023	100%	$2,559	2038	100%	$3,706				A painted, carved wood sign is installed at the entrance to the community. The sign is seven feet by three feet tall and mounted to two 6 x 6 wood posts. The wood itself is in fair condition, but the paint is heavily faded. If the sign is cleaned of old paint and repainted under operations, the service life may be extended by several years.
3.2	Pressure-Treated Wood Fencing	94	LF	$32.00	$3,008	15	2029	100%	$4,250	2044	100%	$6,156				Generally 8' sections of pressure-treated wood fence are constructed behind one townhome at the end of Sherwood Hall Lane. The predominant style is alternating boards about 6' tall. The fencing was recently replaced and is in good condition. Eventual application of a wood preservative or stain will help to extend the fencing service life and maintain appearance.
3.3	Street and Informational Signage	24	EA	$155.00	$3,720	20	2025	50%	$2,381	2035	50%	$3,048				Standard metal traffic, parking and access control signs, typically 12" by 18" and mounted on perforated metal posts, are located throughout the community. Other signs, such as stop signs, are mounted on 4" by 4" timber posts. A total of approximately 24 signs are installed. Posts and signs appear to be in good condition.
3.4	Mailbox Modules	6	EA	$1,800.00	$10,800	25	2027	100%	$14,525	2052	100%	$26,928				Approximately six mailbox modules have been installed at various locations throughout the community. The modules are pedestal mounted to concrete pads or walkway pavers and contain 12 letter sized boxes for each unit. They are in fair condition and have been painted in the past. The paint is now fading, requiring additional painting projects under operations.
3.5	Tot Lot & Outdoor Furniture	2	EA	$21,000.00	$42,000	15	2022	100%	$49,925	2037	100%	$72,306				Two tot lots are located within the community. Tot lot #1 equipment consists of 164 linear feet of wood borders, a wood bench, a wood two-post swing set, a solar light duty light pole and fixture, and a four-post play module (Iron Mountain Forge) with climbing equipment and a plastic slide. Tot lot #2 equipment consists of 176 linear feet of wood borders, a wood bench, a wood two-post swing set, and an eight- post play module (Little Tikes) with climbing equipment and a plastic slide. All equipment appears to be in fair condition. Frequent, periodic safety checks of all components should be conducted to prevent personal injury. Replacement costs are based on replacement with U.S. Consumer Product Safety Commission (CPSC)-compliant play modules.

Reserve Fund Plan for
MT. WOODLEY MANOR HOMEOWNERS ASSOCIATION
Alexandria, Virginia

COMPONENT DATA AND ASSET REPLACEMENT SCHEDULE
TABLE 1
2015 Through 2034

MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.
www.masonreserves.com 800-776-6980 Fax 800-776-6408

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	18
3.6	**Storm Water Drainage System Allowance**	**1**	**LS**	**$8,500.00**	**$8,500**	**7**	**2022**	**100%**	**$10,104**	**2029**	**100%**	**$12,010**	**2036**	**100%**	**$14,276**	**Storm water drainage is provided by concrete yard drains, curb drop inlets, and underground structures, leading storm water offsite. We understand that responsibility for some parts of the system may rest with local government. Though storm water drainage systems are a long life component and catastrophic failure is not anticipated, it is prudent for the community to plan for localized repairs and repairs to ancillary damage, even if a public entity has primary responsibility. This category may also be used to address localized erosion issues. This line item addresses potential storm water collection, drainage, and erosion issues throughout the study period and does not represent a single expense or action already identified as necessary.**

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.

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Reserve Fund Plan for
MT. WOODLEY MANOR HOMEOWNERS ASSOCIATION
Alexandria, Virginia

CALENDAR OF EXPENDITURES
TABLE 2
2015 Through 2034

MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.
www.masonreserves.com 800-776-6980 Fax 800-776-6408

YEAR	COMPONENT NO.	COMPONENT	PRESENT COST 2015	FUTURE COST (INFLATED)	TOTAL ANNUAL EXPENDITURES	ACTION
1	2	3	4	5	6	7
2015					2015	
	2.1	Concrete Sidewalks	$2,283	$2,283	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	$2,517	$2,517		
	2.3	Walkway Pavers	$6,288	$6,288		
					$11,089	
2016					2016	
					NO EXPENDITURES	
2017					2017	
					NO EXPENDITURES	
2018					2018	
	1.1	Asphalt Restoration Project	$81,718	$88,001	TOTAL EXPENDITURES	
	1.3	Asphalt Repair Allowance	$7,800	$8,400		
					$96,401	
2019					2019	
					NO EXPENDITURES	
2020					2020	
	2.1	Concrete Sidewalks	$3,425	$3,875	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	$2,517	$2,848		
	2.3	Walkway Pavers	$6,288	$7,114		
					$13,837	
2021					2021	
					NO EXPENDITURES	
2022					2022	
	3.5	Tot Lot & Outdoor Furniture	$42,000	$49,925	TOTAL EXPENDITURES	
	3.6	Storm Water Drainage System Allowance	$8,500	$10,104		
					$60,029	
2023					2023	
	3.1	Carved Wood Entrance Sign	$2,100	$2,559	TOTAL EXPENDITURES	
					$2,559	
2024					2024	
	1.2	Asphalt Seal Coat	$7,004	$8,748	TOTAL EXPENDITURES	
	1.3	Asphalt Repair Allowance	$1,950	$2,435		
					$11,183	
2025					2025	
	2.1	Concrete Sidewalks	$3,425	$4,384	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	$2,517	$3,222		
	2.3	Walkway Pavers	$6,288	$8,049		
	3.3	Street and Informational Signage	$1,860	$2,381		
					$18,037	
2026					2026	
					NO EXPENDITURES	
2027					2027	
	3.4	Mailbox Modules	$10,800	$14,525	TOTAL EXPENDITURES	
					$14,525	
2028					2028	
					NO EXPENDITURES	
2029					2029	
	3.2	Pressure-Treated Wood Fencing	$3,008	$4,250	TOTAL EXPENDITURES	
	3.6	Storm Water Drainage System Allowance	$8,500	$12,010		
					$16,261	

Reserve Fund Plan for
MT. WOODLEY MANOR HOMEOWNERS ASSOCIATION
Alexandria, Virginia

CALENDAR OF EXPENDITURES
TABLE 2
2015 Through 2034

MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.
www.masonreserves.com 800-776-6980 Fax 800-776-6408

YEAR	COMPONENT NO.	COMPONENT	PRESENT COST 2015	FUTURE COST (INFLATED)	TOTAL ANNUAL EXPENDITURES	ACTION
1	2	3	4	5	6	7
2030					2030	
	1.2	Asphalt Seal Coat	$7,004	$10,144	TOTAL EXPENDITURES	
	1.3	Asphalt Repair Allowance	$3,900	$5,648		
	2.1	Concrete Sidewalks	$3,425	$4,961		
	2.2	Concrete Curbs & Gutters	$2,517	$3,646		
	2.3	Walkway Pavers	$6,288	$9,107		
					$33,506	
2031					2031	
					NO EXPENDITURES	
2032					2032	
					NO EXPENDITURES	
2033					2033	
					NO EXPENDITURES	
2034					2034	
					NO EXPENDITURES	

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

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

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

A description of the columns in the table follows:

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

Reserve Fund Plan for
MT. WOODLEY MANOR HOMEOWNERS ASSOCIATION
Alexandria, Virginia

CURRENT FUNDING ANALYSIS
CASH FLOW METHOD
TABLE 3

MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.
www.masonreserves.com 800-776-6980 Fax 800-776-6408

In Dollars

Beginning Reserve Fund Balance:	Annual Contribution To Reserves:	Contribution Percentage Increase:	Annual Inflation Factor:	Annual Interest Income Factor:
39,145	4,000	2.50%	2.50%	1.50%

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
2015	469,558	39,145	4,000	534	11,088	32,591
2016	481,297	32,591	4,100	526	0	37,216
2017	493,330	37,216	4,203	596	0	42,015
2018	505,663	42,015	4,308	0	96,401	(50,078)
2019	518,305	(50,078)	4,415	0	0	(45,663)
2020	531,262	(45,663)	4,526	0	13,837	(54,974)
2021	544,544	(54,974)	4,639	0	0	(50,336)
2022	558,157	(50,336)	4,755	0	60,029	(105,610)
2023	572,111	(105,610)	4,874	0	2,559	(103,295)
2024	586,414	(103,295)	4,995	0	11,183	(109,483)
2025	601,074	(109,483)	5,120	0	18,036	(122,398)
2026	616,101	(122,398)	5,248	0	0	(117,150)
2027	631,504	(117,150)	5,380	0	14,525	(126,296)
2028	647,291	(126,296)	5,514	0	0	(120,782)
2029	663,474	(120,782)	5,652	0	16,260	(131,390)
2030	680,061	(131,390)	5,793	0	33,506	(159,102)
2031	697,062	(159,102)	5,938	0	0	(153,164)
2032	714,489	(153,164)	6,086	0	0	(147,078)
2033	732,351	(147,078)	6,239	0	0	(140,839)
2034	750,660	(140,839)	6,395	0	0	(134,445)
STUDY PERIOD TOTALS			102,179	1,656	277,424	

Reserve Fund Plan for
MT. WOODLEY MANOR HOMEOWNERS ASSOCIATION
Alexandria, Virginia

ALTERNATIVE FUNDING ANALYSIS
CASH FLOW METHOD
HYBRID APPROACH
TABLE 3.1

MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.
www.masonreserves.com 800-776-6980 Fax 800-776-6408

In Dollars

Beginning Reserve Fund Balance:	Annual Contribution To Reserves:	Contribution Percentage Increase:	Annual Inflation Factor:	Annual Interest Income Factor:
39,145	4,000 (2014)	2.50%	2.50%	1.50%

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
2015	469,558	39,145	18,387	651	11,088	47,095
2016	481,297	47,095	18,846	865	0	66,806
2017	493,330	66,806	19,317	1,167	0	87,290
2018	505,663	87,290	19,800	695	96,401	11,384
2019	518,305	11,384	20,295	338	0	32,017
2020	531,262	32,017	20,803	541	13,837	39,524
2021	544,544	39,524	21,323	771	0	61,617
2022	558,157	61,617	21,856	620	60,029	24,065
2023	572,111	24,065	22,402	525	2,559	44,433
2024	586,414	44,433	22,962	767	11,183	56,980
2025	601,074	56,980	23,536	906	18,036	63,386
2026	616,101	63,386	24,125	1,154	0	88,665
2027	631,504	88,665	24,728	1,423	14,525	100,291
2028	647,291	100,291	25,346	1,722	0	127,359
2029	663,474	127,359	25,980	2,003	16,260	139,082
2030	680,061	139,082	26,629	2,045	33,506	134,250
2031	697,062	134,250	27,295	2,250	0	163,795
2032	714,489	163,795	27,977	2,702	0	194,475
2033	732,351	194,475	28,677	3,171	0	226,323
2034	750,660	226,323	29,394	3,658	0	259,375
STUDY PERIOD TOTALS			469,679	27,975	277,424	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
MT. WOODLEY MANOR HOMEOWNERS ASSOCIATION
Alexandria, Virginia

FUNDING ANALYSIS
COMPONENT METHOD
TABLE 4

MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.
www.masonreserves.com 800-776-6980 Fax 800-776-6408

Beginning Reserve Fund Balance:

In Dollars **39,145**

Component Number	COMPONENT	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1 ASPHALT COMPONENTS																					
1.1	Asphalt Restoration Project	20,907	20,907	20,907	6,638	6,638	6,638	6,638	6,638	6,638	6,638	6,638	6,638	6,638	6,638	6,638	6,638	6,638	6,638	6,638	6,638
1.2	Asphalt Seal Coat	907	907	907	907	907	907	907	907	907	1,615	1,615	1,615	1,615	1,615	1,615	1,037	1,037	1,037	1,037	1,037
1.3	Asphalt Repair Allowance	2,249	2,249	2,249	388	388	388	388	388	388	899	899	899	899	899	899	2,085	2,085	2,085	2,085	2,085
2 CONCRETE COMPONENTS																					
2.1	Concrete Sidewalks	2,234	746	746	746	746	844	844	844	844	844	955	955	955	955	955	1,080	1,080	1,080	1,080	1,080
2.2	Concrete Curbs & Gutters	2,188	548	548	548	548	620	620	620	620	620	702	702	702	702	702	794	794	794	794	794
2.3	Walkway Pavers	5,466	1,369	1,369	1,369	1,369	1,549	1,549	1,549	1,549	1,549	1,753	1,753	1,753	1,753	1,753	1,983	1,983	1,983	1,983	1,983
3 SITE FEATURES																					
3.1	Carved Wood Entrance Sign	251	251	251	251	251	251	251	251	220	220	220	220	220	220	220	220	220	220	220	220
3.2	Pressure-Treated Wood Fencing	266	266	266	266	266	266	266	266	266	266	266	266	266	266	366	366	366	366	366	366
3.3	Street and Informational Signage	221	221	221	221	221	221	221	221	221	221	282	282	282	282	282	282	282	282	282	282
3.4	Mailbox Modules	902	902	902	902	902	902	902	902	902	902	902	902	887	887	887	887	887	887	887	887
3.5	Tot Lot & Outdoor Furniture	5,488	5,488	5,488	5,488	5,488	5,488	5,488	4,296	4,296	4,296	4,296	4,296	4,296	4,296	4,296	4,296	4,296	4,296	4,296	4,296
3.6	Storm Water Drainage System Allowance	1,368	1,368	1,368	1,368	1,368	1,368	1,368	1,626	1,626	1,626	1,626	1,626	1,626	1,626	1,933	1,933	1,933	1,933	1,933	1,933
ANNUAL COMPONENT CONTRIBUTION TOTALS		42,447	35,222	35,222	19,092	19,092	19,442	19,442	18,508	18,477	19,696	20,154	20,154	20,139	20,139	20,546	21,601	21,601	21,601	21,601	21,601

COMPONENT METHOD SUMMARY	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
BEGINNING RESERVE FUND BALANCE	39,145	71,442	108,030	145,171	70,211	90,519	97,650	118,725	79,149	96,413	106,543	110,435	132,421	140,199	162,620	169,530	160,362	184,561	209,126	234,062
PLUS ANNUAL COMPONENT CONTRIBUTION	42,447	35,222	35,222	19,092	19,092	19,442	19,442	18,508	18,477	19,696	20,154	20,154	20,139	20,139	20,546	21,601	21,601	21,601	21,601	21,601
CAPITAL EXPENDITURES	11,088	0	0	96,401	0	13,837	0	60,029	2,559	11,183	18,036	0	14,525	0	16,260	33,506	0	0	0	0
SUBTOTAL	70,504	106,664	143,252	67,862	89,303	96,124	117,092	77,204	95,067	104,926	108,661	130,589	138,035	160,338	166,906	157,625	181,963	206,162	230,727	255,663
PLUS INTEREST INCOME @ 1.50%	938	1,367	1,919	2,348	1,216	1,526	1,634	1,944	1,346	1,617	1,774	1,832	2,164	2,282	2,624	2,737	2,598	2,964	3,335	3,711
FULLY FUNDED RESERVE FUND BALANCE	71,442	108,030	145,171	70,211	90,519	97,650	118,725	79,149	96,413	106,543	110,435	132,421	140,199	162,620	169,530	160,362	184,561	209,126	234,062	259,375

FULLY FUNDED BALANCE GOAL

PERCENT FUNDED FOR CURRENT CYCLE	36%	TOTAL EXPENDITURES	277,424	TOTAL CONTRIBUTIONS	455,777	STUDY PERIOD TOTAL INTEREST	41,877	AVERAGE ANNUAL CONTRIBUTION	22,789

PHOTOGRAPHS
WITH
DESCRIPTIVE NARRATIVES

MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.

PHOTO #1
The asphalt drivelanes and parking bays are in poor condition. It does not appear that any crack filling or seal coating has been accomplished since restoration circa 1995.

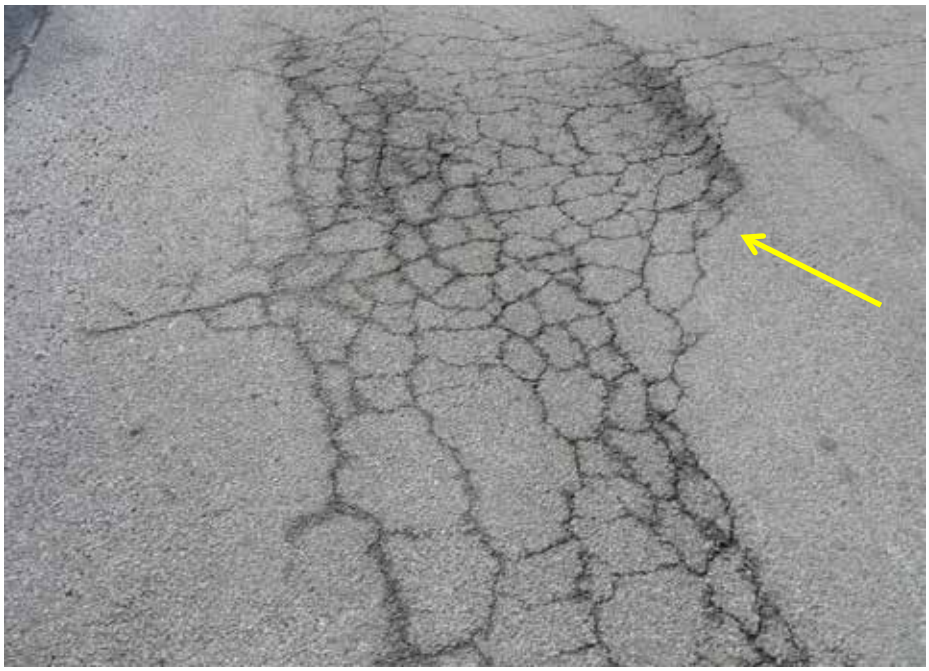

PHOTO #2
A significant amount of alligator or deflected cracking (indicative of sub-base damage) was observed.

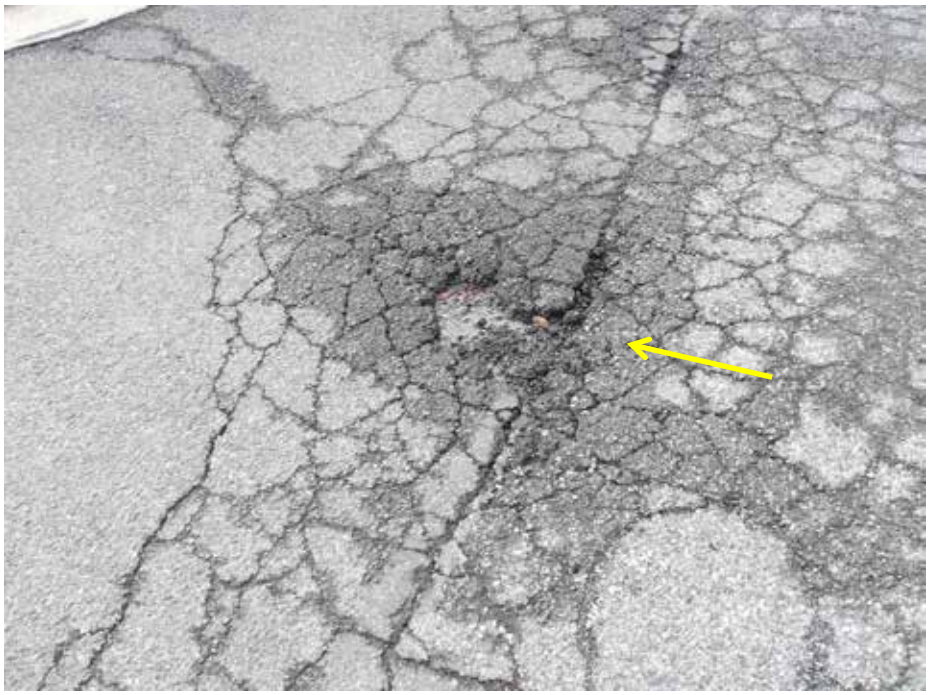

PHOTO #3
A few areas of delamination were also observed, which will continue to worsen as the pavement ages.

PHOTO #4
Although some sections of concrete sidewalk have had cyclic repair, other sections, such as this settled area require repair, as these are potential tripping hazards.

PHOTO #5
A majority of the concrete curbs and gutters are in good condition. Some settled sections were observed and require cyclic repairs.

PHOTO #6
A majority of the walkway pavers are also in good condition. About 10% of the pavers were cracked, settled, or heaved. The pavers with differential heights are potential tripping hazards, which should receive near-term replacement or rebedding.

PHOTO #7
The wood fencing is in good condition. Staining / sealing of the wood will help to extend the service life.

PHOTO #8
Most street signage is in good condition.

PHOTO #9
The mailbox modules are in fair condition. Eventual repainting of the modules will help to extend their service lives.

PHOTO #10
The tot lot #1 components are in fair condition. Pressure washing the play modules will help to improve appearance.

PHOTO #11
The components at tot lot #2 are also in fair condition. The play equipment should be regularly monitored for safety.

PHOTO #12
Some areas of erosion were identified, which can be repaired under the Storm Water Drainage System Allowance.