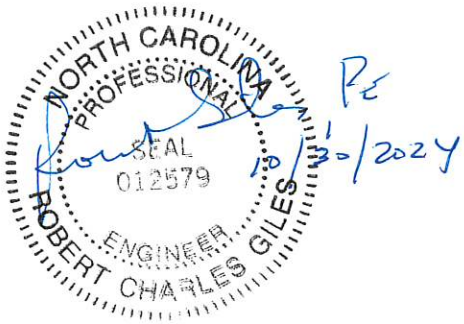
PREPARED FOR:

HARRISON PLACE OWNERS ASSOCIATION
CARY, NC

MANAGED BY:
GRANDCHESTER MEADOWS, INC.

DATE:
OCTOBER 30, 2024

FULL RESERVE STUDY



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INTRODUCTIONS

The Harrison Place Owners Association authorized Giles Flythe Engineers to perform a Reserve Study for the Harrison Place community located in Cary, NC. The purpose of the reserve study is to assist the association in planning future capital repair expenses. A reserve study is an important tool for an association to adequately fund capital reserve accounts through regular annual reserve contributions. Adequately funded capital reserve accounts reduce the need to defer capital repairs, collect special assessments or borrow funds for capital repair projects.

A community association typically has certain responsibilities as described in the association governing documents. These responsibilities often include maintaining common areas and other components. An association, as a non-profit organization, will typically have two general asset cash accounts including an operating account and a reserve account. The operating account is funded from regular budgeted assessments and is used to fund routine operating expenses that occur on a predictable cycle, typically monthly or up to annually. The reserve account is funded from regular contributions and is primarily used to fund non-annual capital repair expenses.

The focus of the reserve study is on the reserve account. We have projected capital repair expenses over a term of thirty years. The capital repair expenses are limited to those components for which the association is responsible for maintaining. Capital repair expense estimates include an expected useful life and remaining useful life of the components to develop a projected schedule for capital repairs over the term. After developing a schedule of capital repairs over the term, we completed a cash flow analysis forecasting reserve account balances over the term and provided funding recommendations as needed. Capital repair expense estimates and funding estimates are most reliable in the first portion of the term. Updating a reserve study every three to five years will mitigate the impacts of variation in repair costs, component wear, inflation and reserve funding over time.

Capital reserve funding recommendations are provided to address funding principles, such as providing a sufficient amount of funds, a stable reserve contribution rate over the term, an equitable contribution rate over the term, and a fiscally responsible approach to funding. The reserve study is intended to assist the association in developing budgeted reserve contributions.

The report includes a narrative section which describes the scope of the reserve study, a discussion of observations and capital repair allocations, a general description of capital repairs and a description of our cash flow analysis and funding recommendations. The report appendices include the capital reserve analysis with tables detailing an itemized list of capital repair expenses, an itemized list of expenses by year and our cash flow analysis. A photo log is provided and includes a representative sample of our observations. The report includes multiple sections with information presented in various forms and should, therefore, be read in its entirety.

EXECUTIVE SUMMARY

Harrison Place is a residential single-family home community situated off of North Harrison Avenue in Cary, NC. Based on Wake County tax records and historical aerial imagery, it appears that development occurred in the late 1980's. The community includes a total of 79 single family homes, a pool/pool building, and a tennis court. The pool building was completed in approximately 1989 based on Wake County tax records and aerial photographs.

The association has responsibility for common area site improvements and amenities. The most significant site improvements include the paved parking area at the amenity center, concrete flatwork at the amenity center, an entrance monument, and common area drainage systems. The amenity area includes a pool with a pool restroom building and a tennis court. The streets in the community are in denoted as public on the plat maps and are assumed to be maintained by the municipality.

The buildings and common areas are generally in good to fair condition. Based on our evaluation, the current level of funding does not maintain a positive balance through the term of this study. We have provided recommendations for annual reserve contribution schedules that are intended in the long term to provide a reserve balance over a minimum threshold balance. We generally recommend a threshold balance of at least an average year of capital repair expenditures. A more detailed analysis of the reserve funds has been provided in Appendix A.

- **Alternative 1**: Beginning in 2026, increase the annual reserve contribution rate by $2,100 (~$2.22 per unit, per month) every other year throughout the remainder of the term. This alternative is projected to maintain a positive balance through the term of this study.

- **Alternative 2**: Beginning in 2025, increase the annual reserve contribution rate by 3.5% per year throughout the remainder of the term. This alternative is projected to maintain a positive balance through the term of this study.

Some significant expenditures are expected over the term of the study. Some of the more notable examples are listed below:

- Resurface asphalt pavement at amenity center
- Resurface swimming pool
- Repair/reconstruct tennis court

Additional, less significant, capital expenditures are anticipated over the term of this study. Those items that will require repair or replacement are discussed later in this report.

PURPOSE & SCOPE

We have completed this study to estimate capital repair expenses the association is responsible for over the term of the study and provide a cash flow analysis and capital reserve funding plan. This study is intended to assist the association in determining the allocation requirements into the reserve fund which are projected to meet future anticipated capital expenditures for the community.

This report estimates capital repair expenses for the community thirty years into the future. Variations in capital repair expense forecasts due to the quality of maintenance, weather and other events may occur. Over time, age, premature deterioration, or other factors may necessitate the addition of assets into the reserve study. Additionally, fluctuations in material and labor costs beyond assumed inflation rates may also affect the accuracy of the forecasts. Therefore, a reserve study should be routinely updated, typically on a three to five-year cycle to provide the most accurate assessment of needs and financial obligations of the community.

What is a reserve study?

A reserve study is a long-term capital budget planning tool which compares the current reserve fund of an organization to future capital repairs and replacements.

A reserve study is a tool to help identify and prepare for major repair and replacement projects for a community.

It is recommended that a reserve study be performed every five years to ensure that communities are saving the necessary funds for capital repairs and improvements.

This study has been performed according to the scope as generally defined by Harrison Place Owners Association, Giles Flythe Engineers Inc., and the standards of the Community Associations Institute. The findings and recommendations are based on interviews with the community's management personnel, a review of available documents, and a limited visual inspection of the components maintained by the association.

The Cash Flow Method of calculating reserves has been utilized, whereby contributions to the reserve fund are designed to offset the variable annual expenditures. Funding alternates are recommended which are intended in the long term to provide a reserve balance over a minimum threshold balance. We generally recommend a threshold balance of at least an average year of capital repair expenditures. This minimum threshold balance will help offset the risk of fluctuations in labor and material costs and component wear. Note that under certain circumstances to accommodate restricted budgets, projected balances may be below the threshold balance for a short period of time.

To determine which components should be included in this analysis, we used the following guidelines:

- The component must be maintained by the association.
- The component must have an estimated remaining useful life within the term of this study.
- The funding for the repair should be from the reserve account, not through an annual operating budget or other maintenance contracts.
- The cost of the capital repair must be significant enough to not be reasonably funded from an annual operating budget.

Our process for completing the reserve study includes:

1. Reviewing information provided including governing documents, association financial statements, and information on previous or planned capital repairs.
2. Reviewing available information on the property as needed. This may include plat maps, tax records, historical aerial photographs, available site, and building plans.
3. Conducting a visual inspection of the property. This may include interviewing association representatives during the inspection.
4. Developing an inventory of components to be included in the reserve study.
5. Predicting their remaining service life and approximating how frequently they will require repair or replacement.
6. Estimating repair or replacement costs (in current dollars) for each capital item.
7. Develop a cash flow analysis adjusting for inflation and return on invested monies to determine the adequacy of current reserve funding plans.
8. Develop funding recommendations with specific reserve contribution recommendations for each year of the term.

The statements in this report are opinions about the present condition of the areas inspected within the community. Our inspection is limited to a visual ground level inspection and we did not remove any surface materials, perform any testing, or move any furnishings. This study is not an exhaustive technical evaluation or building code compliance review. For additional limitations, see Conclusion and Limitations.

Standards of Reference

The following definitions are provided as a standard of reference:

Excellent: Component or system is in "as new" condition, requiring no rehabilitation and should perform in accordance with expected performance.

Good: Component or system is sound and performing its function, although it may show signs of normal wear and tear. Some minor rehabilitation work may be required.

Fair: Component or system falls into one or more of the following categories: a) Evidence of previous repairs not in compliance with commonly accepted practice, b) Workmanship not in compliance with commonly accepted standards, c) Component or system is obsolete, d) Component or system approaching the end of expected performance. Repair or replacement is required to prevent further deterioration or to prolong expected life.

Poor: Component or system has either failed or cannot be relied upon to continue performing its original function as a result of having exceeded its expected performance, excessive deferred maintenance, or state of disrepair. The present condition could contribute to or cause the deterioration of other adjoining elements or systems. Repair or replacement is required.

Adequate: A component or system is of a capacity that is defined as enough for what is required, sufficient, suitable, and/or conforms to standard construction practices.

SOURCES OF INFORMATION

Date of Inspection

Onsite inspection of the property occurred on April 18, 2024.

Persons Interviewed

The following persons were interviewed in connection with this study:

- Samantha DeBel, Accounts & Community Manager, Grandchester Meadows, Inc.

Documents

The following documents were made available to us and reviewed:

- County Tax Records
- Association governing documents
- Historical aerial photographs
- Association financial statements

Cost Estimates

- Our internal data files on similar projects
- Local contractor estimates for similar projects
- R.S. Means Construction Cost Estimating Data

DESCRIPTION

Harrison Place is a residential single-family home community situated off of North Harrison Avenue in Cary, NC. Based on Wake County tax records and historical aerial imagery, it appears that development occurred in the late 1980's. The community includes a total of 79 single family homes, a pool/pool building, and a tennis court. The pool building was completed in approximately 1989 based on Wake County tax records and aerial photographs.

The association has responsibility for common area site improvements and amenities. The most significant site improvements include the paved parking area at the amenity center, concrete flatwork at the amenity center, an entrance monument, and common area drainage systems. The amenity area includes a pool with a pool restroom building and a tennis court. The streets in the community are in denoted as public on the plat maps and are assumed to be maintained by the municipality.

The community is accessed by an eastern entrance off of North Harrison Avenue and a southern entrance off of Settlers Circle. The main entrance off of North Harrison Avenue is flanked by stone veneer masonry monument walls with community signage. Landscape irrigation and uplighting systems are also installed around the entrance monuments.

The streets in the community are denoted as public on the plat maps. We have assumed the asphalt paving on the public streets is maintained by NCDOT, and the driveways are maintained by the individual homeowners. We have assumed the section of asphalt paving at the amenity center will be maintained by the association.

Stormwater drainage from the site flows via surface runoff into grassed swales and catch basins within the landscaped and paved areas which lead to an underground piping network that discharges off site. The majority of the stormwater utilities are located within the public right-of-way, and we assume are maintained by the municipality. However, we assume the association is responsible for buried utilities at the amenity center.

An amenity center includes a pool with a restroom building, as well as associated furnishings and equipment, and a tennis court.

OBSERVATIONS

The following key observations were made about the current condition of the more significant and costly common elements of the property.

Site Improvements

The streets throughout the community are designated as public on the county plat maps, and we assume they are maintained by the municipality. However, the parking area at the amenity center is assumed to be maintained by the association. The paving generally appeared to be in good condition, and seems to have been resurfaced within the past couple of years. Typically, we recommend the application of an oil resistant sealant to all asphalt paved surfaces on an approximately 7-year cycle. At this same time, all cracks should be properly filled, patched, and sealed, and all pavement markings should be restriped. We have allocated funds for crack repairs and sealcoating on a 7-year cycle beginning in 2028.

Asphalt paving typically provides a useful life of approximately 20-30 years prior to resurfacing. We anticipate the asphalt parking area will require milling and resurfacing in approximately 2049, since an overlay appears to have already been completed. As part of this project, we anticipate milling of the top 2"-3" of pavement, repairing the base course as needed, and the installation of a new 2"-3" top coat over all paved surfaces. We assume any areas of potholes or isolated trip hazards will be funded from a general maintenance budget, as needed.

We understand the association has responsibility for the concrete walkways around the amenity center, the pool decking, and the concrete curb and gutter surrounding the parking area. The concrete curbing and flatwork at the amenity center generally appeared to be in good to fair condition. Minor cracking was observed in the pool decking with previous repairs evident, and minor heaving was observed in the sidewalk above the stairs leading towards the pool restroom building. Over time, it is likely that cracking/movement will continue to develop and worsen in concrete surfaces due to differential settlement. As cracking develops, it is likely that sections of the flatwork will require repairs. We have allocated funds for repair/replacement of portions of the concrete flatwork around the amenity center, as needed, on an approximately 8-year cycle beginning in 2025. Repairs may include grinding to reduce unevenness at cracking or saw-cutting, removing and replacing sections of the concrete. We have assumed isolated areas of upheaval or possible trip hazards would be repaired through an annual maintenance budget in the interim. Due to the limited quantity, we assume repairs to the concrete curbing around the parking area will be funded from an annual maintenance budget, as needed.

Storm water on the site drains via surface flow or via landscaped swales toward catch basins in the landscaped and paved areas. The common area drainage systems were in generally good to fair condition at the time of the inspection. A drainage swale with a concrete level lip is located adjacent to the tennis court, and rip rap is installed at the downstream end. The downstream end of the concrete level lip was slightly undermined, and we were unable to verify if a pipe/catch basin outlet exists in the swale. However, a clogged pipe was observed in the wooded area downstream of the swale. We recommend ensuring all pipes/catch basins in the drainage

systems are clear of debris and properly functioning to convey stormwater through the systems. We also recommend adding a suitable fill beneath the undermined section of the concrete level lip.

Over time, drainage concerns are likely to continue to develop and require periodic repairs or improvements to ensure the drainage systems are appropriately functioning to discharge stormwater towards the appropriate management systems. Landscaped swales tend to accumulate sediment that settles out during storm events and will need to be periodically removed and re-graded. Erosion concerns are likely to develop in steeper slopes which would require stabilization repair. In addition, over time, small landscape drainage systems may need to be installed in flat portions of the common areas to address ponding concerns. As the community ages, we would also recommend having portions of the private drainage infrastructure inspected with a video camera system, flushed, and repaired, as necessary.

We have allocated funds for drainage system repairs and improvements every 5 years beginning in 2025. Drainage improvements would likely include retrenching of swales to improve flow, inspection/maintenance of underground systems, installation and repair of riprap or turf reinforcement at inlets/outlets and on steep slopes, and installing French drains or other types of subsurface drainage systems. These types of repairs can be moderate (re-trenching swales, flushing pipes), to very expensive (new underground pipe systems). We have included a moderate budget to help cover these costs.

Stone entrance monument walls are located on both sides of the entrance to the community off of North Harrison Avenue, and a stone monument with an engraved sign is located in the median. The monuments generally consist of stone veneer with decorative lighting on the caps. Three pole lights are also located in the median. The signage and monuments appeared to be in good condition and should require minimal maintenance over the term. We do not anticipate a large-scale replacement project of the monuments. However, refurbishment may be periodically required. Refurbishment may include replacement/repairs of the signage, repairs to the stone veneer, and replacement of the decorative light fixtures. We have included an allocation of funds for repairs to the entrance monument every 12 years beginning in 2031.

A painted composite sign is located at the amenity center that was in fair condition. The sign is mounted to wood posts, and the paint was observed to be flaking. Due to the smaller size of this sign, we assume repairs/replacement will be funded from an annual maintenance budget, as needed.

Landscape irrigation systems are installed at the entrance to the community and the amenity area. We have included funds to replace the controllers, timers, repair backflow preventers, and make valve/pipe repairs to the existing systems, as necessary, every 10 years beginning in 2030. We have assumed minor repairs (irrigation head replacement, minor pipe repairs, adjustments, etc.) would be funded from an annual maintenance budget. Note, costs of these repairs can vary depending on the scope of work, quantity of repairs needed, etc.

Gabion basket retaining walls are located at the amenity center near the end of the parking area and along the tennis court. While it is unlikely, failure of this wall would likely require a specialized solution as provided by a geotechnical engineer. It is assumed this type of failure and repair would be addressed through special assessments or other outside funding, due to the unpredictability and unlikelihood of failure. These walls

typically provide a useful life of 40+ years before significant repairs are required. We recommend adding funding for eventual repairs as a part of a future reserve study update. We recommend monitoring the walls periodically for signs of movement/structural concerns in the interim.

Common area landscaping maintenance and small-scale tree removal projects are the responsibility of the association and are generally funded from the annual maintenance budget. An asphalt walking path is located at the west end of Livingstone Drive that connects to the Town of Cary Greenway system. Per the online Wake County plat maps, the walking path is maintained by the Town of Cary, and we have not included funding for repairs for the path in this study.

Building Exterior

The association maintains the pool area restroom building and equipment building.

The predominant pitched roof surfaces over the pool and equipment buildings are covered in metal paneling. Typically, this type of roofing will last 40 years or more if properly maintained. Minor damages were observed around edges, though the roof was in overall good condition. Eventually, the metal panels will corrode and fasteners will wear, and the roof will require replacement. We strongly recommend that any re-roofing project closely follow procedures outlined by the National Roofing Contractors Association's *Roofing and Waterproofing Manual*. A re-roofing sequence should include removal of the existing roofing material, replacement of any inadequate roof sheathing, damaged flashing, and drip edge components. We have provided an allocation of funds to replace the pool and equipment building roofs in 2035. It is likely that minor roofing repairs will be required in the interim, including replacement of exhaust vent boots and minor flashing repairs. We have assumed these types of repairs will be funded from a general operating budget.

The gutters and downspouts are in generally good condition and should not require replacement over the term of this study. However, we assume minor repairs will be completed using funds from a general maintenance budget, as needed.

The exteriors of the pool and equipment buildings are predominately clad in painted wood siding and trim. The exterior painted components on the buildings appeared to be in fair condition, with flaking paint observed. We have allocated funds to paint and repair the wood siding and trim at the pool and equipment buildings on an approximately 7-year cycle beginning in 2026. Painting cycles should include repairing siding/trim components, repairing any deteriorated caulking and sealant, adequate surface preparations, and the application of two coats of high-quality exterior paint on all painted surfaces.

The pool building includes sliding exterior gate doors at the front and rear, a metal gate at the front, and metal-skin exterior doors for the restrooms and equipment building. The doors were operable and appeared to be in good to fair condition. The pump and chemical room door will tend to wear faster due to exposure to the chemical elements. We recommend replacing the pump and chemical room door on an approximately 15-year cycle beginning in 2032. We have also provided an allocation of funds to replace the restroom doors at the pool building on an approximately 30-year cycle beginning in 2040. We assume repairs to the hardware

and panels on the sliding doors, as well as window repairs, will be funded from a general maintenance budget, as needed.

Building Interior

The pool building includes two restrooms that each include painted/coated flooring, painted metal partition walls, toilets, and sinks. The walls are covered in painted gypsum wallboard with wood baseboards. We assume interior painting of the restrooms will be funded from an annual maintenance budget, as needed. Over time, the restrooms will require refurbishment, which may include replacing partitions, fixtures, and plumbing components. Per the previous study provided, the fixtures were replaced around 2012. We have provided an allocation of funds to refurbish the pool building restrooms on an approximately 25-year cycle beginning in 2037.

Mechanical, Electrical, and Plumbing Systems

The pool area includes a locking access gate behind the front sliding door. These types of systems are typically repaired/upgraded every 8-12 years, and we have allocated funds for repairing/upgrading the access control systems on a 10-year cycle beginning in 2030.

A water fountain is installed on the exterior of the restroom areas. We have allocated funds to replace these components on a 20-year cycle beginning in 2038.

The pool pump and filtration room includes a 3-horsepower pump for the swimming pool and two Triton sand filters. Pool pump and filtration equipment is typically replaced as components fail. The sand in the filters typically requires replacement on an approximately 5-year cycle. We have provided an allocation of funds to replace portions of the pool pump and filtration equipment on an approximately 3-year cycle beginning in 2026.

Four (4) pole lights are installed around the tennis court area, three (3) in the amenity parking area, and one (1) on the roof of the pool building. The poles should provide a useful life beyond the term of this study. However, the light fixtures typically are replaced on an approximately 20-year cycle, and we assume they are original to construction. We have allocated funds to replace the light fixtures around the amenity center and tennis court in 2027.

Building and pool area electrical and plumbing systems were functional during our inspection. Corrosion was observed on the panel in the pool pump building, and the panel door was detaching from the panel in the pool restroom building. We assume the panel door will be reattached for safety using funds from a general maintenance budget. These systems generally have an expected useful life of approximately 40+/- years. However, we have provided an allocation of funds in 2030 for long term repairs to these systems. This would likely include replacing breaker panels, repairing electrical wiring, and replacing sections of plumbing supply and waste piping as needed.

The association is also likely responsible for buried utility piping within the amenity center area. These systems likely include sanitary sewer and drainage piping. Over time, the systems may require repairs due to

tree root growth and natural deterioration. We recommend inspecting the systems periodically using a video borescope and flushing as needed. We have provided a contingency of funds for repairs to underground utility systems on an approximately 30-year cycle beginning in 2035. Note, timeframes and costs for these types of projects can vary significantly depending on environmental factors and the scope of work required.

Amenities

Amenities owned and maintained by the association include the pool with associated furnishings and a tennis court.

The swimming pool was filled at the time of the site visit, and inspection of the surfaces was limited. Based on the previous reserve study, the pool was resurfaced in approximately 2014. Pools typically require resurfacing on an approximately 10- to 15-year cycle. We have allocated funds for resurfacing the pool on a 12-year cycle beginning in 2027. This would include draining the pool, removing damaged/delaminated plaster work, repairing waterline tile, and re-plastering the pool surface (possibly quartz plaster). We assume pool ladders and rails will be replaced using funds from an annual maintenance budget, as needed.

The fencing around the pool is comprised of a painted/coated chain link fence that appears to be original to construction. Significant flaking paint was observed, though the fence was generally plumb and in fair structural condition. However, due to the deterioration in the finish, we have allocated funds to replace the pool fencing on an approximately 30-year cycle beginning in 2025 with anodized aluminum fencing based on cost information provided.

Pool furniture consists of vinyl-wrapped chaise lounges, chairs, tables, and umbrellas that were in winter storage at the time of inspection. We have allocated funds to replace all the pool furniture on a 9-year cycle beginning in 2025. Note that replacement cycles will depend on volume of utilization, exposure, and storage methods.

The association is also responsible for a tennis court comprised of a composite tile surface and chain link perimeter fencing. Based on the previous reserve study, the tennis court fencing is reportedly original to construction, and the tiles were installed in approximately 2013. Both components appear to be in generally good condition. We have allocated funds to replace the tile surface and chain link fencing on a 20-year cycle beginning in 2033. Note, resurfacing costs can vary significantly depending on condition of the underlying asphalt beneath the tiles. If full depth repairs or full reconstruction are deemed required upon removal of the tiles, the cost can increase significantly.

RESERVE FUND ANALYSIS

We have performed a cash flow analysis projecting balances in the reserve account over the term of this study. We have included estimated capital repair expenses detailed in the first several pages of Appendix A. We have included tables and graphs depicting current funding levels along with recommended funding alternatives.

The financial projections include an assumed inflation rate and an assumed average return on invested funds noted on the first page of the appendices. The inflation rate adjustment is noted at the bottom of the annual expense page, and the return on invested funds is noted in the existing funding level and funding alternative cash flow tables.

The software utilized to analyze the reserve funds was developed by Giles Flythe Engineers, Inc. in cooperation with a technology consultancy. The software and our analysis system have been extensively reviewed by leading community association and non-profit certified public accountants.

The capital repairs listed were derived from the initial request for proposal, discussions with association representatives, our informal review of governing documents and our site inspection. The association should confirm that the items listed are, in fact, the responsibility of the association and appropriate to fund from the reserve account.

Appendix A includes the following:

1. The Project Summary page that lists pertinent details specific to the association, the terms of the analysis, and summarizes total over term expenses and recommended threshold balance.
2. The Expense Projection page that itemizes the capital repairs by category, illustrates our cost estimating by unit and provides estimated useful life and remaining useful life of each item.
3. The Annual Expense Projection pages that populate the capital repairs over the term of the study. This page includes a total adjusted for inflation at the bottom of the pages.
4. The Itemized Funding Analysis page provides a summary of the capital expenditures over the term and a graph breaking down the portion of the capital repairs into each category – Site Improvements, Building Exterior, Building Interior, Mechanical/Electrical/Plumbing Systems, and Amenities.
5. The Current Funding Projection page provides a table and graph illustrating our cash flow analysis assuming the association maintains the current level of reserve contributions over the term of this study. The table includes projected reserve account balances, contributions, return on invested funds and capital repair expenses for each year of the term of this study.
6. The Funding Alternative pages each provide a table and graph illustrating our cash flow analysis assuming the association implements one of our funding recommendations detailed below.

Current Reserve Funding Rate:	**$22,292 per year**
Estimated Starting Reserve Balance:	**$256,740 (Projected 2025 starting balance)**

Note that based on our cash flow analysis, maintaining the current funding level is not projected to maintain a positive/healthy balance over the term for the general reserves. We have included recommended funding alternatives to your current reserve-funding program and recommend that the board adopt an alternative that best reflects the objectives of the community. We have provided recommendations for annual reserve contribution schedules that are intended in the long term to provide a reserve balance over a minimum threshold balance. We generally recommend a threshold balance of at least an average year of capital repair expenditures. Our funding recommendations are as follows:

- **Alternative 1**: Beginning in 2026, increase the annual reserve contribution rate by $2,100 (~$2.22 per unit, per month) every other year throughout the remainder of the term. This alternative is projected to maintain a positive balance through the term of this study.

- **Alternative 2**: Beginning in 2025, increase the annual reserve contribution rate by 3.5% per year throughout the remainder of the term. This alternative is projected to maintain a positive balance through the term of this study.

The reserve study is focused on the capital reserve account and budgeted contributions to reserves. The recommendations above are solely attributed to the annual reserve contributions. The association likely has many line items in the annual operating budget that should also be periodically adjusted as part of an annual budgeting process.

The capital repair/replacement cost estimates we have developed are based on current dollars. Our reserve study does include an adjustment for inflation and an assumed rate of return on invested funds.

PREVENTATIVE MAINTENANCE

Preventative maintenance is a critical aspect affecting a property's life cycle costs and structural safety. It is encouraged that every property owner has a preventative maintenance plan prepared. The reserve study is not to be considered a preventative maintenance plan. A preventative maintenance plan should incorporate all applicable common elements, not just those components included within the reserve study.

Any information provided by the client regarding ongoing maintenance or repair being performed with any component has been noted within the notes for that component. We can only be aware of preventative maintenance plans or programs that have been disclosed by the client. Note that an audit or evaluation of any maintenance plan or maintenance contract is outside the scope of the services of this project.

In some states and municipalities, periodic structural inspection reports are required for certain types of buildings. This periodic inspection report is critical to assist the reserve study provider in incorporating necessary corrective maintenance costs and timing. We recommend the association complete any and all required structural inspections and reports, and have assumed these reports would be made available for our review during the reserve study.

We have assumed repairs under a dollar value of approximately $3,000 would be funded as part of an annual maintenance budget, unless noted otherwise under the narrative section of the report. These repairs were not included in the funding allocations of this reserve study, unless otherwise noted. We have assumed other component repairs/replacements would be funded from an annual maintenance budget as noted in the report.

CONCLUSION & LIMITATIONS

We have provided reserve funding recommendations based on our analysis of the association-maintained components, estimated capital repair costs over the term and the current funding levels. Further detail of the reserve fund analysis is provided in Appendix A.

The physical analysis portion of this reserve study was completed through a limited visual inspection. The visual inspection was completed from ground level unless otherwise specified. The visual inspection is generally limited to readily accessible and visible common areas that would likely require capital repair activities over the term. However, in some instances, a representative sample inspection may be performed. Measurement of components is completed by a combination of field measurements, aerial imagery measuring tools, and take-offs from construction drawings as available. Unless specifically noted, the components included in this study have an anticipated remaining useful life within 30-years from the time the field observations used in preparing the study was performed.

Note that this inspection does not include removing surface materials, excavation, or any testing. The inspection does not include riparian buffers or other protected common areas. Buried utility components and other concealed components were not inspected as part of this analysis, and we cannot be responsible for the condition of components not inspected.

The observations described in this study are valid on the date of the investigation and have been made under the conditions noted in the report. We prepared this study for the exclusive use of Harrison Place Owners Association. No other party should rely on the information in this report without consent. If another individual or party relies on this study, they shall indemnify and hold Giles Flythe Engineers Inc. harmless for any damages, losses, or expenses they may incur as a result of its use. This study is not to be considered a warranty of condition, and no warranty is implied. The appendices are an integral part of this report and must be included in any review. The Reserve Specialist shall incur no civil liability for performing the physical or financial portions of a reserve study performed in accordance with CAI standards.

Members of the Giles Flythe Engineers team working on this reserve study are not members of, or otherwise associated with, the association. Giles Flythe Engineers has disclosed any other involvement with the association that could result in conflicts of interest.

Information provided by the representatives of the association regarding financial, physical, quantity, or historical issues, will be deemed reliable by Giles Flythe Engineers. The reserve balance presented in the Reserve Study is based upon information provided and was not audited. Information provided about reserve projects will be considered reliable. Any on-site inspection should not be considered a project audit or quality inspection. Giles Flythe Engineers is not aware of any additional material issues which, if not disclosed, would cause a distortion of the association's situation.

This reserve study is partially a reflection of information provided to us. The reserve study is assembled for the association's use and is not intended to be used for the purpose of performing an audit, quality/forensic analyses, or background checks of historical records. Structural integrity evaluations are not included in the

reserve study unless otherwise noted. The financial information provided, including starting balances and budgeted contribution rates are deemed reliable and have not been audited. Further, this study should not be considered a building code compliance analysis. The purpose of this study is to provide the association with a financial tool and is not to be considered an exhaustive technical or engineering evaluation which would consist of a broader scope of work. Except as noted in the report, we have not relied on the validity of prior reserve studies performed by other firms.

We have provided estimated costs of capital repairs. These costs are based on our general knowledge of the construction industry. We have relied on standard sources as needed, such as Means Building Construction Cost Data and estimates reviewed by Giles Flythe Engineers on similar projects. We have performed no design work or other engineering analysis as part of this study, nor have we obtained competitive quotations or estimates from contractors. Actual repair costs can vary due to a variety of factors. We cannot be responsible for the specific cost estimates provided.

This report has been prepared and reviewed by a professional engineer (PE) and reserve specialist (RS) on our staff.

If you have any questions about this reserve study, please feel free to contact us. Thank you for the opportunity to serve you.

Respectfully submitted,

Kevin R. Giles, RS
Project Manager
Giles Flythe Engineers, Inc.

Robert C. Giles, PE, RS
President
Giles Flythe Engineers, Inc.

APPENDIX A: RESERVE FUND PROJECTIONS

Harrison Place Owners Association

City/state location:	Cary, NC
Date of inspection:	4/18/2024
Number of units:	79
Term of study (years):	30
Beginning Year of Term	2025
Estimated starting reserve account balance:	$256,740
Current annual reserve contribution rate:	$22,292
Assumed inflation rate:	4.00%
Assumed rate of return on invested funds:	1.50%
Total over term capital expenditure (un-inflated):	**$757,900**
Total over term capital expenditure with inflation:	**$1,392,193**
Recommended threshold reserve balance: (Average annual capital expenditure)	**$46,406**

GILES FLYTHE ENGINEERS

EXPENSE ESTIMATES

Capital Item Description	Quantity	Unit	Unit Cost	Total Cost Per Cycle	Estimated Useful Life (years)	Estimated Remaining Life (years)	Notes
Site Improvements							
Crack fill, seal coat, stripe asphalt paving	1,400	SY	$3.00	$4,200	7	3	
Mill and resurface asphalt paving	1,400	SY	$35.00	$49,000	25	24	
Repair sections of concrete flatwork	110	SY	$125.00	$13,750	8	0	Approx. 10% every 8 years
Common area drainage improvements	1	LS	$10,000.00	$10,000	5	0	
Refurbish entrance monuments and lights	1	LS	$5,000.00	$5,000	12	6	
Landscape irrigation system repairs	1	LS	$12,000.00	$12,000	10	5	
Building Exterior							
Replace pool and equipment building roofs	20	SQ	$1,500.00	$30,000	40	10	
Paint exterior siding and trim, replace caulking	1	LS	$5,500.00	$5,500	7	1	
Replace pump and chemical room door	1	EA	$1,200.00	$1,200	15	7	
Replace restroom doors at pool building	2	EA	$1,200.00	$2,400	30	15	
Building Interior							
Refurbish restrooms at pool building	2	EA	$9,000.00	$18,000	25	12	
Mechanical, Electrical, Plumbing Systems							
Replace access control systems	1	LS	$6,000.00	$6,000	10	5	
Replace water fountain at pool building	1	EA	$2,200.00	$2,200	20	13	
Replace pool pump and filtration components	1	LS	$4,500.00	$4,500	3	1	
Replace amenity center pole light fixtures	8	EA	$1,000.00	$8,000	20	2	Light heads only
Contingency for plumbing and electrical systems	1	LS	$15,000.00	$15,000	15	5	
Contingency for underground utility repairs	1	LS	$20,000.00	$20,000	30	10	
Amenities							
Resurface swimming pool	2,600	SF	$22.00	$57,200	12	2	
Replace chain link fencing around pool area	270	LF	$90.00	$24,300	30	0	
Replace portions of pool furnishings	45	EA	$250.00	$11,250	9	0	
Replace tennis court composite tiles	7,100	SF	$5.00	$35,500	20	8	
Replace tennis court fencing	340	LF	$35.00	$11,900	30	8	

SY: Square Yard SF: Square Feet: LF: Linear Feet SQ: Roofing Square
EA: Each LS: Lump Sum SYS: System

ANNUAL EXPENSE PROJECTION

Description	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Site Improvements										
Crack fill, seal coat, stripe asphalt paving				$4,200						
Mill and resurface asphalt paving										
Repair sections of concrete flatwork	$13,750								$13,750	
Common area drainage improvements	$10,000					$10,000				
Refurbish entrance monuments and lights							$5,000			
Landscape irrigation system repairs						$12,000				
Building Exterior										
Replace pool and equipment building roofs										
Paint exterior siding and trim, replace caulking		$5,500							$5,500	
Replace pump and chemical room door								$1,200		
Replace restroom doors at pool building										
Building Interior										
Refurbish restrooms at pool building										
Mechanical, Electrical, Plumbing Systems										
Replace access control systems						$6,000				
Replace water fountain at pool building										
Replace pool pump and filtration components		$4,500			$4,500			$4,500		
Replace amenity center pole light fixtures			$8,000							
Contingency for plumbing and electrical systems						$15,000				
Contingency for underground utility repairs										
Amenities										
Resurface swimming pool			$57,200							
Replace chain link fencing around pool area	$24,300									
Replace portions of pool furnishings	$11,250									$11,250
Replace tennis court composite tiles									$35,500	
Replace tennis court fencing									$11,900	
Totals	**$59,300**	**$10,000**	**$65,200**	**$4,200**	**$4,500**	**$43,000**	**$5,000**	**$5,700**	**$66,650**	**$11,250**
Totals including inflation:	**$59,300**	**$10,400**	**$70,520**	**$4,724**	**$5,264**	**$52,316**	**$6,327**	**$7,501**	**$91,215**	**$16,012**

ANNUAL EXPENSE PROJECTION

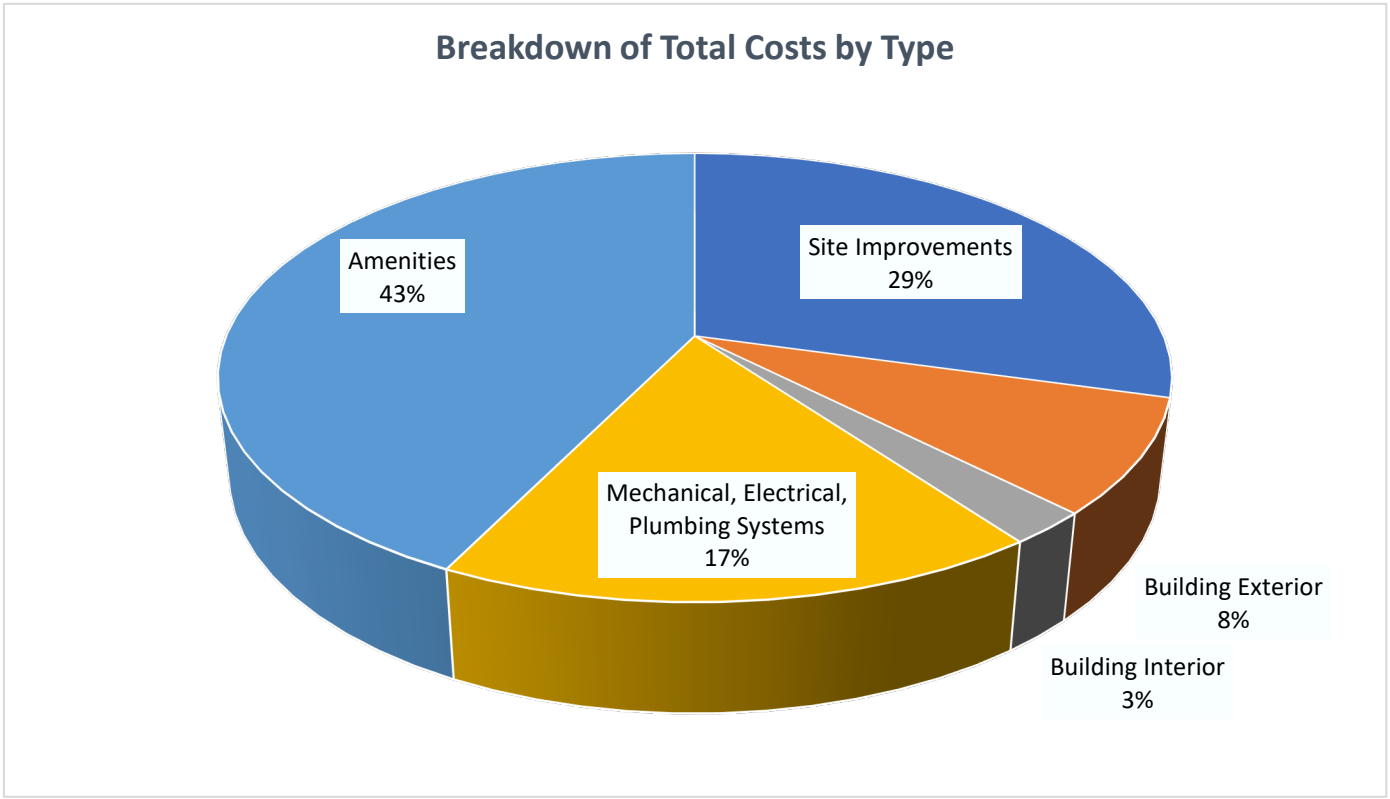
Description	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
Site Improvements										
Crack fill, seal coat, stripe asphalt paving	$4,200							$0		
Mill and resurface asphalt paving										
Repair sections of concrete flatwork							$13,750			
Common area drainage improvements	$10,000					$10,000				
Refurbish entrance monuments and lights									$5,000	
Landscape irrigation system repairs						$12,000				
Building Exterior										
Replace pool and equipment building roofs	$30,000									
Paint exterior siding and trim, replace caulking						$5,500				
Replace pump and chemical room door										
Replace restroom doors at pool building						$2,400				
Building Interior										
Refurbish restrooms at pool building			$18,000							
Mechanical, Electrical, Plumbing Systems										
Replace access control systems						$6,000				
Replace water fountain at pool building				$2,200						
Replace pool pump and filtration components	$4,500			$4,500			$4,500			$4,500
Replace amenity center pole light fixtures										
Contingency for plumbing and electrical systems										
Contingency for underground utility repairs	$20,000									
Amenities										
Resurface swimming pool					$57,200					
Replace chain link fencing around pool area										
Replace portions of pool furnishings									$11,250	
Replace tennis court composite tiles										
Replace tennis court fencing										
Totals	**$68,700**	**$0**	**$18,000**	**$6,700**	**$57,200**	**$35,900**	**$18,250**	**$0**	**$16,250**	**$4,500**
Totals including inflation:	**$101,693**	**$0**	**$28,819**	**$11,156**	**$99,052**	**$64,654**	**$34,182**	**$0**	**$32,920**	**$9,481**

ANNUAL EXPENSE PROJECTION

Description	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054
Site Improvements										
Crack fill, seal coat, stripe asphalt paving					$4,200					
Mill and resurface asphalt paving					$49,000					
Repair sections of concrete flatwork					$13,750					
Common area drainage improvements	$10,000					$10,000				
Refurbish entrance monuments and lights										
Landscape irrigation system repairs						$12,000				
Building Exterior										
Replace pool and equipment building roofs										
Paint exterior siding and trim, replace caulking			$5,500							$5,500
Replace pump and chemical room door			$1,200							
Replace restroom doors at pool building										
Building Interior										
Refurbish restrooms at pool building										
Mechanical, Electrical, Plumbing Systems										
Replace access control systems						$6,000				
Replace water fountain at pool building										
Replace pool pump and filtration components			$4,500			$4,500			$4,500	
Replace amenity center pole light fixtures			$8,000							
Contingency for plumbing and electrical systems	$15,000									
Contingency for underground utility repairs										
Amenities										
Resurface swimming pool							$57,200			
Replace chain link fencing around pool area										
Replace portions of pool furnishings								$11,250		
Replace tennis court composite tiles									$35,500	
Replace tennis court fencing										
Totals	**$25,000**	**$0**	**$19,200**	**$0**	**$66,950**	**$32,500**	**$57,200**	**$11,250**	**$40,000**	**$5,500**
Totals including inflation:	**$54,778**	**$0**	**$45,502**	**$0**	**$171,613**	**$86,640**	**$158,585**	**$32,438**	**$119,948**	**$17,153**

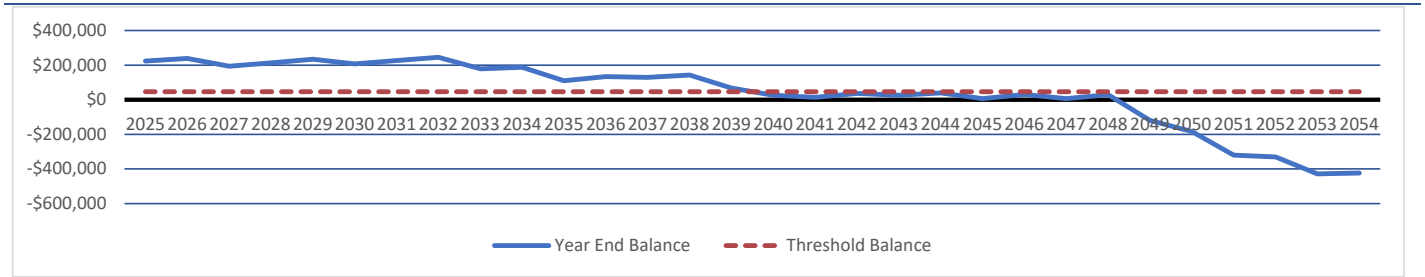
EXPENSE SUMMARY

Total over term capital expenditure (un-inflated)	**$757,900**
Total over term capital expenditure with inflation:	**$1,392,193**
Average estimated annual capital expenditure with inflation:	**$46,406**
Current Reserve Account Balance	**$256,740**
Full Funding Balance	**$225,571**
Percent Funded	**113.82%**



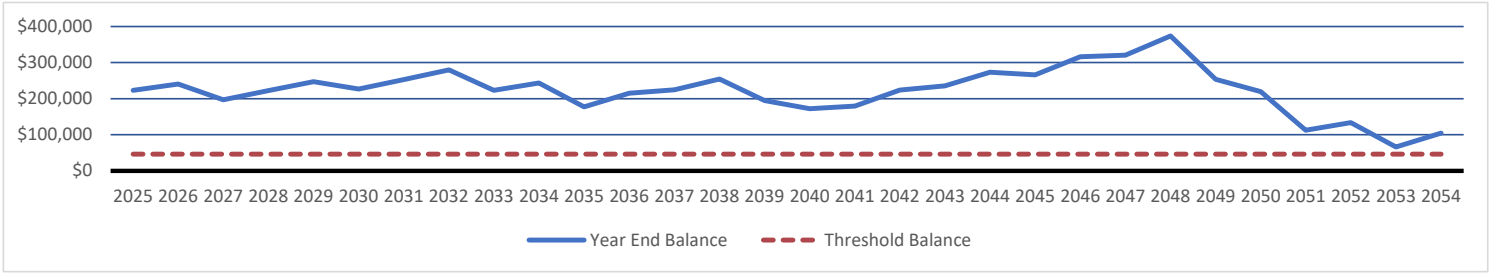
Current Funding Analysis

Year	Starting Balance	Reserve Account Contribution	Average Per Unit/Month	Return on Investments	Repair Expenses	Special Assessments	Year End Balance
2025	$256,740	$22,292	$23.51	$3,296	$59,300	$0	$223,028
2026	$223,028	$22,292	$23.51	$3,524	$10,400	0	$238,444
2027	$238,444	$22,292	$23.51	$2,853	$70,520	0	$193,069
2028	$193,069	$22,292	$23.51	$3,160	$4,724	0	$213,796
2029	$213,796	$22,292	$23.51	$3,462	$5,264	0	$234,286
2030	$234,286	$22,292	$23.51	$3,064	$52,316	0	$207,326
2031	$207,326	$22,292	$23.51	$3,349	$6,327	0	$226,640
2032	$226,640	$22,292	$23.51	$3,621	$7,501	0	$245,053
2033	$245,053	$22,292	$23.51	$2,642	$91,215	0	$178,772
2034	$178,772	$22,292	$23.51	$2,776	$16,012	0	$187,827
2035	$187,827	$22,292	$23.51	$1,626	$101,693	0	$110,053
2036	$110,053	$22,292	$23.51	$1,985	$0	0	$134,330
2037	$134,330	$22,292	$23.51	$1,917	$28,819	0	$129,721
2038	$129,721	$22,292	$23.51	$2,113	$11,156	0	$142,970
2039	$142,970	$22,292	$23.51	$993	$99,052	0	$67,203
2040	$67,203	$22,292	$23.51	$373	$64,654	0	$25,214
2041	$25,214	$22,292	$23.51	$200	$34,182	0	$13,523
2042	$13,523	$22,292	$23.51	$537	$0	0	$36,353
2043	$36,353	$22,292	$23.51	$386	$32,920	0	$26,111
2044	$26,111	$22,292	$23.51	$584	$9,481	0	$39,506
2045	$39,506	$22,292	$23.51	$105	$54,778	0	$7,125
2046	$7,125	$22,292	$23.51	$441	$0	0	$29,859
2047	$29,859	$22,292	$23.51	$100	$45,502	0	$6,748
2048	$6,748	$22,292	$23.51	$436	$0	0	$29,475
2049	$29,475	$22,292	$23.51	$0	$171,613	0	-$119,846
2050	-$119,846	$22,292	$23.51	$0	$86,640	0	-$184,193
2051	-$184,193	$22,292	$23.51	$0	$158,585	0	-$320,487
2052	-$320,487	$22,292	$23.51	$0	$32,438	0	-$330,633
2053	-$330,633	$22,292	$23.51	$0	$119,948	0	-$428,289
2054	-$428,289	$22,292	$23.51	$0	$17,153	0	-$423,149



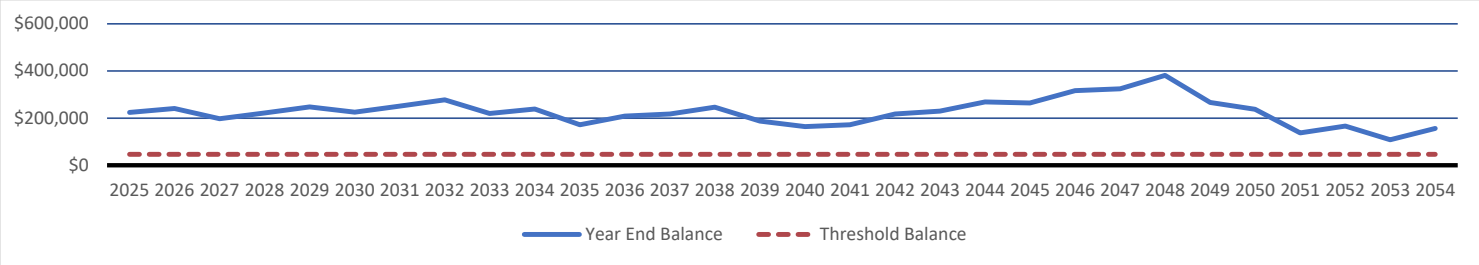
Funding Alternative 1 - Increase by $2,100 every other year

Year	Starting Balance	Reserve Account Contribution	Average Per Unit/Month	Return on Investments	Repair Expenses	Special Assessments	Year End Balance
2025	$256,740	$22,292	$23.51	$3,296	$59,300	$0	$223,028
2026	$223,028	$24,392	$25.73	$3,555	$10,400	$0	$240,575
2027	$240,575	$24,392	$25.73	$2,917	$70,520	$0	$197,364
2028	$197,364	$26,492	$27.95	$3,287	$4,724	$0	$222,418
2029	$222,418	$26,492	$27.95	$3,655	$5,264	$0	$247,301
2030	$247,301	$28,592	$30.16	$3,354	$52,316	$0	$226,930
2031	$226,930	$28,592	$30.16	$3,738	$6,327	$0	$252,933
2032	$252,933	$30,692	$32.38	$4,142	$7,501	$0	$280,266
2033	$280,266	$30,692	$32.38	$3,296	$91,215	$0	$223,040
2034	$223,040	$32,792	$34.59	$3,597	$16,012	$0	$243,417
2035	$243,417	$32,792	$34.59	$2,618	$101,693	$0	$177,134
2036	$177,134	$34,892	$36.81	$3,180	$0	$0	$215,206
2037	$215,206	$34,892	$36.81	$3,319	$28,819	$0	$224,598
2038	$224,598	$36,992	$39.02	$3,757	$11,156	$0	$254,191
2039	$254,191	$36,992	$39.02	$2,882	$99,052	$0	$195,013
2040	$195,013	$39,092	$41.24	$2,542	$64,654	$0	$171,993
2041	$171,993	$39,092	$41.24	$2,654	$34,182	$0	$179,557
2042	$179,557	$41,192	$43.45	$3,311	$0	$0	$224,060
2043	$224,060	$41,192	$43.45	$3,485	$32,920	$0	$235,817
2044	$235,817	$43,292	$45.67	$4,044	$9,481	$0	$273,673
2045	$273,673	$43,292	$45.67	$3,933	$54,778	$0	$266,120
2046	$266,120	$45,392	$47.88	$4,673	$0	$0	$316,184
2047	$316,184	$45,392	$47.88	$4,741	$45,502	$0	$320,815
2048	$320,815	$47,492	$50.10	$5,525	$0	$0	$373,832
2049	$373,832	$47,492	$50.10	$3,746	$171,613	$0	$253,456
2050	$253,456	$49,592	$52.31	$3,246	$86,640	$0	$219,654
2051	$219,654	$49,592	$52.31	$1,660	$158,585	$0	$112,321
2052	$112,321	$51,692	$54.53	$1,974	$32,438	$0	$133,549
2053	$133,549	$51,692	$54.53	$979	$119,948	$0	$66,272
2054	$66,272	$53,792	$56.74	$1,544	$17,153	$0	$104,455



Funding Alternative 2 - Increase by 3.5% per year

Year	Starting Balance	Reserve Account Contribution	Average Per Unit/Month	Return on Investments	Repair Expenses	Special Assessments	Year End Balance
2025	$256,740	$23,072	$24.34	$3,308	$59,300	$0	$223,820
2026	$223,820	$23,880	$25.19	$3,559	$10,400	$0	$240,859
2027	$240,859	$24,716	$26.07	$2,926	$70,520	$0	$197,980
2028	$197,980	$25,581	$26.98	$3,283	$4,724	$0	$222,119
2029	$222,119	$26,476	$27.93	$3,650	$5,264	$0	$246,980
2030	$246,980	$27,403	$28.91	$3,331	$52,316	$0	$225,398
2031	$225,398	$28,362	$29.92	$3,711	$6,327	$0	$251,144
2032	$251,144	$29,354	$30.96	$4,095	$7,501	$0	$277,093
2033	$277,093	$30,382	$32.05	$3,244	$91,215	$0	$219,503
2034	$219,503	$31,445	$33.17	$3,524	$16,012	$0	$238,460
2035	$238,460	$32,546	$34.33	$2,540	$101,693	$0	$171,853
2036	$171,853	$33,685	$35.53	$3,083	$0	$0	$208,621
2037	$208,621	$34,864	$36.78	$3,220	$28,819	$0	$217,886
2038	$217,886	$36,084	$38.06	$3,642	$11,156	$0	$246,456
2039	$246,456	$37,347	$39.40	$2,771	$99,052	$0	$187,522
2040	$187,522	$38,654	$40.77	$2,423	$64,654	$0	$163,945
2041	$163,945	$40,007	$42.20	$2,547	$34,182	$0	$172,317
2042	$172,317	$41,407	$43.68	$3,206	$0	$0	$216,930
2043	$216,930	$42,856	$45.21	$3,403	$32,920	$0	$230,269
2044	$230,269	$44,356	$46.79	$3,977	$9,481	$0	$269,122
2045	$269,122	$45,909	$48.43	$3,904	$54,778	$0	$264,157
2046	$264,157	$47,516	$50.12	$4,675	$0	$0	$316,348
2047	$316,348	$49,179	$51.88	$4,800	$45,502	$0	$324,824
2048	$324,824	$50,900	$53.69	$5,636	$0	$0	$381,360
2049	$381,360	$52,681	$55.57	$3,936	$171,613	$0	$266,365
2050	$266,365	$54,525	$57.52	$3,514	$86,640	$0	$237,764
2051	$237,764	$56,434	$59.53	$2,034	$158,585	$0	$137,647
2052	$137,647	$58,409	$61.61	$2,454	$32,438	$0	$166,072
2053	$166,072	$60,453	$63.77	$1,599	$119,948	$0	$108,176
2054	$108,176	$62,569	$66.00	$2,304	$17,153	$0	$155,896



APPENDIX B: PROJECT PHOTOGRAPHS

Description View of entrance monument in median	
Photo No. 1	

Description Engraved entrance sign	
Photo No. 2	

Description Typical entrance monument wall	
Photo No. 3	

Description Irrigation sprinkler head at monuments	
Photo No. 4	

Description Irrigation control storage	
Photo No. **5**	

Description Irrigation control box	
Photo No. **6**	

Description Signage at amenity center	
Photo No. 7	

Description Amenity center pavement in good condition	
Photo No. 8	

Description Typical concrete flatwork	
Photo No. 9	

Description Minor heave in sidewalk near parking area	
Photo No. 10	

Description Typical cracking in pool decking	
Photo No. 11	

Description Typical drainage swale	
Photo No. 12	

Description Drainage swale with concrete level lip	
Photo No. 13	

Description Undermined section of concrete in drainage swale	
Photo No. 14	

Description Assumed buried outlet pipe/catch basin in drainage swale	
Photo No. 15	

Description Outlet pipe in wooded area filled with debris; assumed from drainage swale along tennis court	
Photo No. 16	

Description Gabion basket retaining wall	
Photo No. 17	

Description View of pool building	
Photo No. 18	

Description Pool building roof with minor dents	
Photo No. 19	

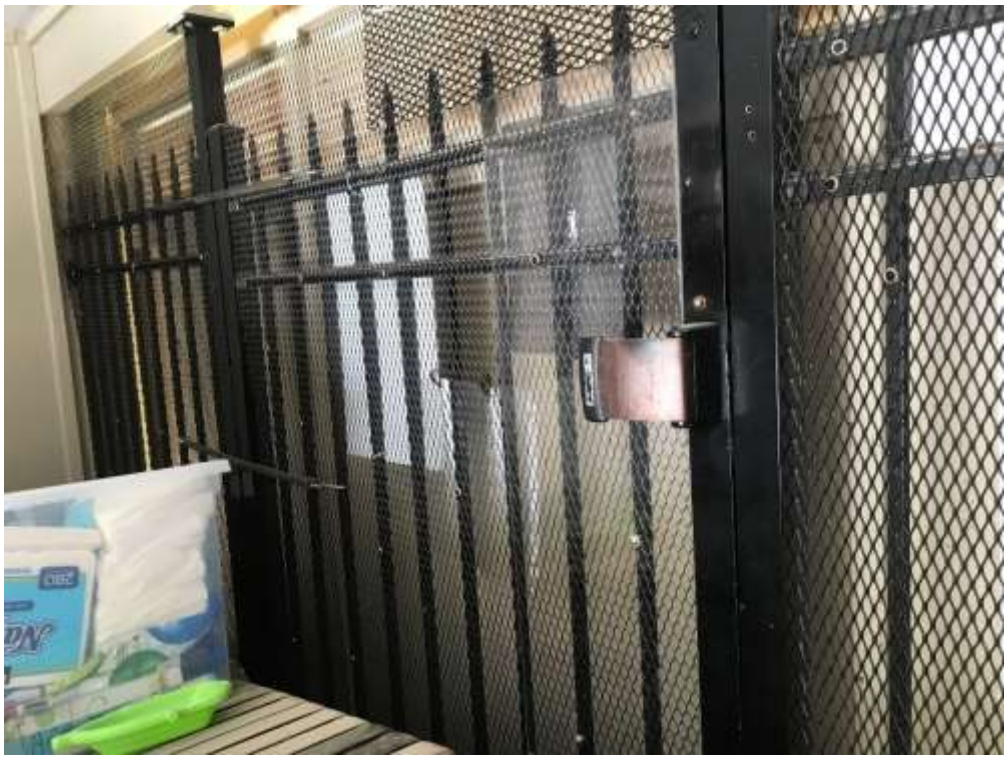
Description View of mechanical building	
Photo No. 20	

Description Deterioration in mechanical room door	
Photo No. 21	

Description Sliding door rail on pool building; flaking paint	
Photo No. 22	

Description Flaking paint on pool building	
Photo No. 23	

Description Chain link fence around pool with flaking paint	
Photo No. 24	

Description Pool building entry gate	
Photo No. 25	

Description Typical pool building restroom	
Photo No. 26	

Description	
Electric panel door hanging off in restroom	
Photo No. 27	

Description	
Minor corrosion in equipment building electrical panel	
Photo No. 28	

Description Pool pump and filtration equipment	
Photo No. 29	

Description View of swimming pool	
Photo No. 30	

Description View of swimming pool	
Photo No. 31	

Description View of tennis court and fencing	
Photo No. 32	

Description Composite tiles at tennis court	
Photo No. 33	

Description Pavement underlay at tennis court	
Photo No. 34	