



**MASON & MASON**  
CAPITAL RESERVE ANALYSTS, INC.

MEMBER OF  
**community**  
ASSOCIATIONS INSTITUTE

(Final Report Revised January 19, 2007)

Condition Assessment

and

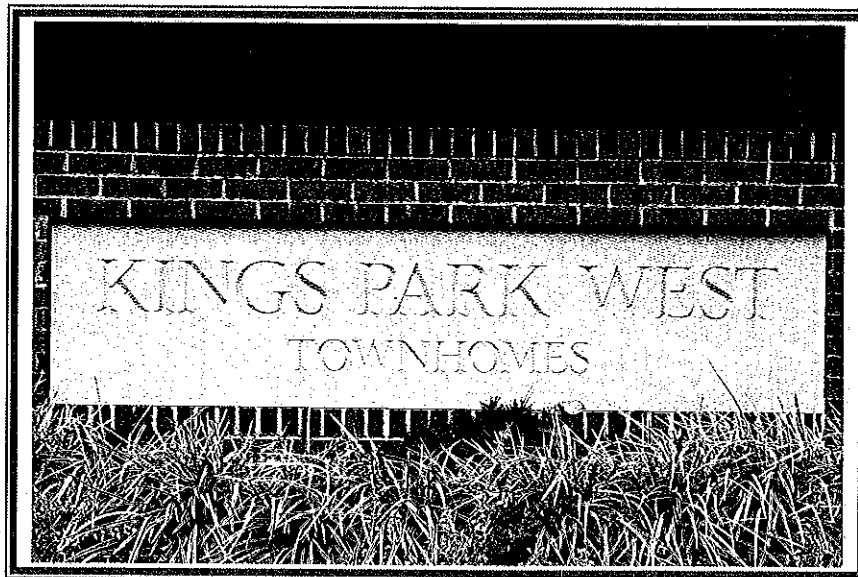
Reserve Fund Plan

2007

for

**KINGS PARK WEST**

Fairfax, Virginia



Prepared for:  
The Board of Directors  
&  
Capitol Property Management



**MASON & MASON**  
CAPITAL RESERVE ANALYSTS, INC.



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January 19, 2007

Ms. Karen Conroy, CMCA, AMS, Senior Community Association Manager  
Capitol Property Management  
2914 Centreville Road, Suite 300  
Chantilly, Virginia 20151

RE: **CONDITION ASSESSMENT AND RESERVE FUND PLAN 2007**  
**Park West Community Association**  
**Final Report Revised January 19, 2007**  
Fairfax, Virginia  
Project No. 6051

Dear Ms. Conroy:

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

The final report reflects revisions requested in your e-mail of January 15, 2007 and in our discussions with the Board at the meeting of November 14, 2006.

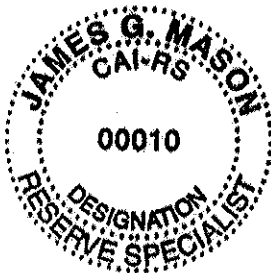
We genuinely appreciate the opportunity to work with you and the community.

Sincerely,

**Mason & Mason Capital Reserve Analysts, Inc.**

James G. Mason, R. S.  
Principal

N. K. Mason, R. S.  
Principal



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### RESERVE FUND PLAN

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## **FOREWORD**

**One of the most important assets held by a common-property owner's association is its replacement reserve fund. The goal of the fund is to protect property values, not only for common areas, but also the individual properties within the community whose values depend upon the condition of the common assets. Reserve fund plans protect property by providing a methodology for replacement of deteriorating capital assets. The end result of a successfully implemented reserve fund plan is an increased quality of life for community residents.**

## 1.0 INTRODUCTION

**1.1 Background:** Kings Park West is a 270-unit townhome community located on Braddock Road and Roberts Road in Fairfax, Virginia. Amenities include a pool facility, tot lot, multi-purpose court, and asphalt footpaths. Park West Community Association (PWCA) is the legal entity that represents the development and its common assets. The community was constructed circa 1980. Five private streets are the responsibility of PWCA. The street layout includes concrete sidewalks, curbs and gutters, and 47 parking bays providing 573 spaces. Additional curb parallel parking is permitted in specific locations throughout the community.

Mason & Mason did not review the declarations, covenants, or other organization documents pertaining to the establishment and governance of the Homeowners Association, including the maintenance and replacement of common area improvements and facilities. Ultimately, the establishment, maintenance, and expenditure of reserves are within the discretion of the Association and its Board of Directors pursuant to those organizational documents, subject to the laws of the applicable jurisdictions.

James G. Mason, R. S., and N. K. Mason, R. S. conducted the field evaluation for this report on October 5, 2006. The weather was overcast and the temperature was approximately 78 degrees F. Precipitation had not occurred for several days prior to the site visit. Pavements, walkways, and grounds were generally dry and clean of debris.

**1.2 Principal Findings:** The common assets appear to be in overall good condition. The community is approaching its thirty-year benchmark in terms of replacement of major systems. The asphalt pavement, while still in reasonably good condition, is beginning to show deterioration typical of a second-cycle overlay where reflective cracking and deflection begin to come into play. The deficiencies should be corrected prior to seal coating, which is now scheduled for 2007. The pool facility parking lot appears to be original pavement and was not overlaid with the streets. We have scheduled repairs to maximize its service life, but it may not be capable holding up until the next street overlay. Concrete sidewalks reflect a slightly higher-than-average deficiency rate and will require repairs, primarily tripping hazards near-term. Curbs and gutters are in average condition with minimal deficiencies observed. Approximately 50% of the asphalt footpaths have been replaced, and the remaining are in poor to fair condition with additional work scheduled near-term. Storm water facilities are in generally good condition with a few deficiencies observed near and around the stream, which will require minor repairs to culverts and rip rap. The pool facility generally appears to be in good condition. The pool facility is closed for the season, and we were not able to observe the pool coping, white coat, and structure, but based on the generally good condition of the pool deck and lack of settlement in the area, the pool shell should be capable of additional years of service before major work would be required. 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.

The net effect of these changes to the reserve fund plan is that there is a required small increase to \$15.33 per unit per month in reserve contributions to properly fund at levels consistent with the Component Method. **Anything less than a Component Method level is deficit funding** and will eventually result in a shortage of funds possibly requiring large increases, bank loans, or special assessments, all of which should be avoided. Please see

the Financial Overview, Section 2 below, for specific information and Cash Flow alternative funding plan.

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 Supplemental Report in Section 8, for specific information.

## 2.0 FINANCIAL OVERVIEW

**2.1 Calculation Basics:** The Association is on a calendar fiscal year. Management reported that the reserve fund balance, including cash and securities, as of December 31, 2006, is projected to be **\$452,599**. We have used the **OMB projected, five-year average 4.00% annual interest income factor** and the **3.50% inflation factor** in our model. The total expenditures for the twenty-year study period for both the **Cash Flow Method and Component Method** are projected to be **\$1592,341**.

**2.2 Current Funding Analysis, Cash Flow Method (Table 3 & Graph):** The current annual contribution to reserves is **\$45,600**. At this level, the total for all annual contributions for the twenty-year study period would be **\$912,000**, and the total interest income is projected to be **\$322,749**. **Continued funding at this level results in positive but insufficient balances.**

**2.3 Alternative Funding Analysis, Cash Flow Method (Table 3.1 and Graph):** This alternative provides the annual contributions necessary to maintain balances more consistent with the **Component Method** funding by increasing the annual contribution to **\$49,681** in 2007 and providing an annual escalation factor of **3.50%** (matching inflation) thereafter. **This alternative 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 study period would be **\$1,404,974**, and the total interest income is projected to be **\$490,111**. The reserve fund balance in the last year of the study (2026) is **\$755,343**, or a **22%** balance to asset base ratio.

**2.4 Funding Analysis, Component Method (Table 4 & Graph):** This method of funding would require annual contributions ranging from a low of **\$48,068** to a high of **\$98,410** for an average annual contribution throughout the twenty-year study period of **\$70,750**. The total for all annual contributions for the twenty-year study period would be **\$1,415,000**, and the total interest income is projected to be **\$480,086**. The **Fully Funded** ending balance in 2026 is **\$755,343**. The Component Method model considers the current reserve fund balance in computing individual component contributions for current cycles. **The Component Method model distributes the current reserve fund balance proportionally to all components prior to calculating the individual component contributions for each component cycle.**

**2.5 Reserve Funding Philosophy:** The condition assessment and reserve fund plan is intended to be a working tool for Management and the Board for planning over the long term in order to help them understand the complex issues before them and make informed decisions. The Board of Directors, in consultation with Management and accounting professionals, should decide which of the two reserve funding methods is appropriate for the community. **We believe that funding using the Cash Flow Method based on levels determined by the Component Method is the most appropriate and manageable approach.**

### 3.0 VISUAL EVALUATION METHODOLOGY

The condition assessment forming the basis for this report was visual and non-invasive. We did not perform any destructive testing to uncover or expose hidden conditions. No operational testing of mechanical, electrical, plumbing, fire protection, or other internal systems was performed. No spaces were entered that were inaccessible or potentially hazardous. Code compliance, capacities and equipment adequacy for current loads were not addressed. Mason & Mason makes no warranty that every defect is disclosed. Our scope of work does not 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 evaluation, this report should not be considered to be a full safety evaluation of components.

Repair and replacement costs are based upon commonly accepted references and our experience with similar components installed in similar circumstances. Our opinions of costs are based on published construction cost data, experience with similar projects, information provided by local contractors and management personnel. 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 presume a normal level of past, present and future maintenance. No warranties or guarantees of component service life expectancies are expressed or implied and none should be inferred by this report. Actual experience in replacing components may differ significantly from the projections in the Reserve Fund Plan, because of conditions beyond our control or that were not visually apparent at the time of the evaluation. This report is not a mandate, but is intended to be a guide for future planning.

### 4.0 ACCOUNTING METHODS

**4.1 Cash Flow Method of Funding (Tables 3, 3.1 etc.):** The balance of the reserve fund and corresponding annual contribution is determined by setting a level above a pre-determined minimum balance computed after the yearly expenditures. The minimum balance is typically expressed as a percentage, or ratio, of the total reserve fund balance to the asset base. The appropriate level is determined by a variety of factors including condition, age, and complexity of the community. This method is becoming widely accepted in part because of advanced computer modeling but also because it can be a more efficient use of capital. **The goal should be to set the first year contribution at a level requiring only small annual inflationary increases, to fully fund the reserves long-term. This addresses generational equity issues, as the first year contribution will be equal to the last year in terms of the cost of money. We have determined through many years of experience that funding under the Cash Flow Method at levels determined by the Component Method will produce the best results. The combination of the two systems is the most manageable.** This method is depicted on Table 3, Current Funding Analysis Cash Flow Method and Alternatives, if appropriate.

**4.2 Component Method of Funding (Table 4):** Each component is fully funded at 100% of its replacement value on a ratio directly proportionate to its remaining life cycle years. Each component is also allotted a percentage of the fund's total reserves (balance on hand) as part of this complex calculation prior to determining the actual annual contribution. **Fully funded** means the fund is on target, including time considerations. Funds set aside for replacement of individual components are not normally used for the replacement of other components. In rare cases where a reserve fund is actually overfunded, \$0 will be displayed on the component tables, indicating that the component

is fully funded for that cycle. The Component Method usually results in annual contribution fluctuations and fund balances, but is considered to be the most conservative method for accruing reserve funds. This method is depicted on **Table 4, Funding Analysis Component Method.**

**4.3 Interest Income on Reserve Funds:** In order to replicate approximate financial conditions, interest income on reserve funds should be recognized. The financial tables have been programmed to calculate interest income based on a pre-determined rate. This rate can be set at any level, including zero, for those desiring to not recognize interest. **Typically, the rate used reflects OMB's (Office of Management and Budget) projection for T-Note rates during the 2005 through 2015 time period.** The rate should reflect, as accurately as possible, the actual combined rate of return on all securities and other instruments of investment.

Interest calculations are segregated into three individual asset components, and the results are summed to generate the yearly interest accumulations. Interest accrued by the reserve fund assets are compartmentalized and calculated according to the following three categories; beginning reserve fund balance, interest accumulated upon the reserve fund contributions, and interest lost by the capital expenditures.

Interest earned on the yearly beginning reserve fund balance is calculated by compounding the beginning reserve fund balance on a monthly period by the interest rate. Interest earned for the reserve fund contributions are calculated by assuming that twelve equal installments are deposited, and interest is accrued and compounded monthly upon the accumulating balance. Likewise, the interest lost on the capital expenditures is calculated on the assumption that expenditures are deducted from the reserve balance on a monthly basis, and the interest that is lost is calculated upon the aggregate monthly balance. 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.

**4.4 Future Replacement Costs (Inflation):** In order to replicate actual financial conditions, 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. Typically, the rate used reflects **OMB's average annual Consumer Price Index (urban) for the period of 2005 through 2015.**

**4.5 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. Example: Funding for a re-roofing project, while, at the same time, funding for a second re-roofing project. This method often results in higher annual contribution requirements and leads to generational equity issues. Mason & Mason employs this method only in special circumstances.

**4.6 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. 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. This method is the standard by which Mason & Mason calculates funding.

## 5.0 REPLACEMENT METHODS

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

**5.2 Cyclic Replacement:** Components are replaced in stages over a period of time. Example: Sidewalks are typically replaced in sections rather than as complete units.

**5.3 Minor Components:** A minimum component value should be established for inclusion in the reserve fund. Components of insignificant value in relation to the scale of the community should not be included and should be deferred to the maintenance budget. A small community might exclude components with aggregate values less than \$1,000, while a large community might exclude components with aggregate values of less than \$5,000.

**5.4 Long Life Components:** Almost all communities have some components with useful service lives typically ranging between thirty and sixty years. Traditionally, this type of component has been ignored completely or included at full replacement value far beyond the twenty-year study period. Example: Storm water drainage systems have a useful service life of approximately forty to sixty years. However, they typically require expensive repairs sometime during their service life. Mason & Mason programming addresses these issues by calculating partial funding over a period of time to provide for anticipated localized repairs.

**5.5 Projected Useful Service Life:** Useful service lives of components are established using construction industry standards as a guideline. Useful service lives can vary greatly due to initial quality and installation, inappropriate materials, maintenance practices, environment 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 replacements and for accumulating reserve funds.

## 6.0 UPDATING THE RESERVE FUND PLAN

In order for a reserve fund plan to remain a viable planning tool, it should be periodically updated. Changing financial conditions and widely varying aging patterns of components dictate that revisions should be undertaken every three 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 typically involve a site visit to observe current conditions, adjusting fund balances and contributions, and recalculating the financial tables. This updating process insures the integrity of the reserve fund plan and contributes to the financial health of the community. Mason & Mason encourages certain types of communities to perform Administrative Updates on complex properties that are undergoing several costly projects simultaneously. These updates include adjustments to the replacement schedules, annual contributions, balances, replacement costs, and interest income. The Administrative Update does not require a site visit and can be a cost-effective way of keeping the Reserve Fund Plan current between Full Update cycles. Updates are particularly important for those communities employing the Cash Flow Method because it maintains the twenty-year window. The Cash Flow Method does not consider expenditures beyond the study period. Those expenditures are brought into the study as it is periodically updated.

## 7.0 MAINTENANCE PROTOCOLS

The following preventative maintenance practices are suggested to assist the community 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 community's assets.

This section includes protocols for many, but not necessarily all, components in the study. Items for which no maintenance is necessary, appropriate, or beyond the purview of this report are not included in this section.

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

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

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

**7.4 Asphalt Crack Filling:** Cracks that develop throughout the life of the asphalt should be thoroughly cleaned of plant growth and debris (lanced) and then filled with a rubberized asphalt crack sealant. If the crack surfaces are not properly prepared, the sealant will not adhere. Crack filling should be accomplished every three to six years to

prevent infiltration of water through the asphalt into the sub-grade, causing damage to the road base. It is appropriate to perform these types of repairs immediately prior to edgmill and overlay. Generally, this type of repair should not be required for approximately five years after an edgmill and overlay project.

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

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

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

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

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

**7.10 Brick Component Tuckpointing & Repair:** Brick components should be inspected periodically for step cracks in the mortar and shear cracks through the brick and mortar, indicating settlement problems. Signs of efflorescence on the brick face and mortar or spalling brick faces indicate water infiltration and should be investigated. Water infiltration problems are usually initiated at the top of an improperly sealed coping. Eliminating the infiltration of water into the structure from the coping can be accomplished by various methods, depending on the brick detail. Installation of a metal coping is sometimes a cost-effective method of solving these problems and extending the life of the component. Sealing of brick surfaces with breathable coatings will also extend

the useful service life of the brick. All vegetation, such as vines or tree limbs should be kept clear of the brick to prevent damage. As brick components age, depending upon the initial quality of the mortar and the long-term environment of the wall, mortar joints may deteriorate. This condition can be corrected by tuckpointing. Applying soft sealants to the deteriorated joints or to cover up mortar joint cracks is not recommended. Deteriorated or cracked mortar joints should be repaired by cutting damaged material  $\frac{3}{4}$ -inch deep with a diamond blade masonry saw. The void should then be filled with new mortar and the joints struck to match the original work.

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

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

**7.13 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.

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

should be cleared. In areas where gutters collect fallen leaves, gutters should have screens installed. Downspouts should be directed away from buildings. Erosion can be minimized by the use of properly located splash blocks or plastic flexible tubing. In all cases, water should be directed away from building foundations. Splash blocks must be properly placed, and flexible plastic extensions require diligent maintenance.

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

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

**7.17 Pool Structure:** The swimming pools are in-ground, cast-in-place concrete structures. Most outdoor pools of this type, in this area, require a major renovation between twenty and forty years of age. The service life is dependent upon initial construction and site preparation. Pools built on a cut and fill site are more prone to have settlement issues. It is prudent to plan for structural renovation now because of the large expense involved if required. Core samples should be taken periodically, as the pool ages, to determine the condition of the gunnite and concrete. Water infiltration will weaken the concrete and early detection can prevent higher repair costs.

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

**7.19 Pool Coping:** The coping around the pool perimeter is standard commercial bullnose cast stone, bedded and grouted to the pool structure. In order to extend the useful life of the pool structure and adjacent pool deck, it is important to keep the coping sections watertight. This will prevent water from infiltrating beneath the pool structure, which, if not controlled may cause damage during freeze/thaw cycles. Sealant should be applied between the pool coping and the pool deck. Deteriorated or separated sealant

should be removed completely before new sealant is applied. Any loose, cracked, or "hollow" copings should be re-bedded or replaced annually as part of the long-term preventative maintenance required for pools. Deteriorated or cracked mortar between coping tiles or below the coping tiles at the pool structure should be diligently repaired.

**7.20 Chain Link Fencing:** Very little maintenance is necessary for chain link fencing and gates. Periodic removal of encroaching vegetation should be performed to prevent damage to components. Damaged components should be repaired or replaced. Rusted fencing components may be painted to improve appearance.

## 8.0 ASPHALT PAVEMENT SUPPLEMENTAL REPORT

Street Name	Total SY Asphalt Pavement	SY Full- Depth Repairs	Linear Footage Cracks	Parking Spaces	Parking Bays
Pool Parking Lot	600	33	300	13	3
Carriage Park Court	3,040	0	200	56	5
Carriage Park Road	9,760	0	1,000	198	14
Gainsborough Drive	6,950	150	1,400	158	13
Malone Court	3,630	66	350	93	6
Treasure Court	2,730	11	300	55	6
<b>TOTALS</b>	<b>26,710</b>	<b>260</b>	<b>3,550</b>	<b>573</b>	<b>47</b>

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
  - GY = 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 1<sup>st</sup> Cycle Year** is the scheduled year of the first projected replacement or repair.
- Column 9 Percentage of Replacement** is the percentage of component value to be replaced in the first replacement cycle.
- Column 10 Cost for 1<sup>st</sup> Cycle** is the future cost (with inflation) of the replacement. It is the product of Column 6 times Column 9 in future dollars.
- Column 11 2<sup>nd</sup> Cycle Year** is the scheduled year of the second projected replacement or repair. If a second cycle is not listed, it is because the first cycle is beyond the end of the study.
- Column 12 Percentage of Replacement** is the percentage of component value to be replaced in the second replacement cycle. This can vary from the percentage of the first cycle for various reasons, such as the increased age of a component may require a larger amount of repair.
- Columns 13 Cycles, Percentage, and Cost** repeat as itemized above. Although not shown on the tables, Through **16** the cycles continue throughout the study period and beyond.
- Column 18 Discussion** is the description and observed condition of the component and the methodology employed in the decision-making process. Includes the photo reference, **(Photo #1, #2, etc.)** and Maintenance Protocol reference numbers **(7.1, 7.2 etc.)** if applicable.

COMPONENT DATA AND  
ASSET REPLACEMENT SCHEDULE  
TABLE 1  
2007 Through 2026

Component No.	Component	Quantity	Unit of Measurement	Unit Cost	Total Asset Base	Typical Service Life (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
<b>1. ASPHALT COMPONENTS</b>																
1.1	Asphalt Restoration Project	26,710	SY	\$12.00	\$320,520	18	2016	100%	\$438,994	2034	100%	\$823,506				The asphalt pavement throughout the community appears to be in generally good condition. The thickness of the pavement could not be visually determined. Restoration includes edgemilling and overlay with 1-1/2" new compacted asphalt. Core sampling should be used to determine the depth and condition of the sub-base and pavement prior to restoration. Costs include re-stripping, but not replacement of any inadequate sub-base. A full useful service life is dependent on preventative maintenance being performed as suggested in the Maintenance Protocols section of the report and scheduled in Items 1.2 and 1.3 below. See the Asphalt Pavement Supplemental Report, Section 8, for additional details. Refer to Maintenance Protocol 7.1.
1.2	Asphalt Seal Coat	26,710	SY	\$1.01	\$26,977	6	2007	100%	\$26,977	2013	100%	\$33,271	2022	100%	\$45,569	The pavement does not appear to have been seal coated. In order to help extend the useful service life of the pavement and improve curb appeal after repairs are performed, we have generally scheduled seal coating projects every six years, except in the year of the pavement restoration project. Seal coating projects include striping and curb painting. Refer to Maintenance Protocol 7.2.
1.3	Asphalt Full-Depth Repair & Crack Filling Allowance	1	LS	\$30,000.00	\$30,000	6	2007	50%	\$15,000	2013	75%	\$27,749	2016	100%	\$41,089	Deflected pavement (approximately 260 square yards), indicative of sub-base damage, was observed in three streets and the pool parking lot. Random longitudinal and transverse cracking (approximately 3,550 linear feet) were observed throughout the community. Repairs are essential in order to achieve the projected remaining useful service life of the pavement. Full-depth repairs and crack filling are generally scheduled progressively every six years throughout the study period, including the year of the asphalt restoration project. See the Asphalt Pavement Supplemental Report, Section 8, for additional details. Refer to Photo #1 and #2 and Maintenance Protocols 7.3 and 7.4.
1.4	Asphalt Footpaths	416	SY	\$30.00	\$12,480	12	2007	60%	\$6,240	2013	12%	\$1,847	2016	38%	\$6,495	Asphalt footpaths 3', 4', or 6' in width provide access between sections of the community. The footpaths range from like-new to poor condition. We have scheduled them for replacement according to condition with 50% (the 3' wide paths) in poor condition near-term, 12% fair to good condition mid-term, and 38% like-new condition late-term. The 3' wide paths have potholes, subsidence cracking and heaving causing tripping hazards. These should be replaced as soon as practicable to prevent personal injury. The footpath restoration project is scheduled to coincide with other asphalt projects to promote cost efficiencies. Refer to Photo #3 and #4 and Maintenance Protocol 7.5.
<b>2. CONCRETE COMPONENTS</b>																
2.1	Concrete Sidewalks	44,760	SF	\$8.50	\$380,375	5	2007	5%	\$19,019	2012	3%	\$13,590	2017	3%	\$16,185	Concrete sidewalks throughout the community are either 4', 5', or 6' wide. The thickness of the concrete could not be visually determined. Their condition ranges from good to poor, with some newer sections observed. We observed approximately 2,113 square feet of deficient concrete. Many sections are settled at curbs or between sections causing tripping hazards, some sections are cracked, and some areas have scaled surfaces. We observed extensive settlement problems at many utility covers including cracks, covers well above the elevation of the adjacent sidewalks causing tripping hazards, and very large gaps between the covers and adjacent sidewalks. All of these conditions should be rectified to prevent personal injury.  We have not scheduled replacement of sidewalk sections with scaled surfaces as they do not appear to pose a hazard at the present. However, replacement of some of the more severely scaled sections should be addressed with each replacement cycle as they will tend to deteriorate more quickly over time. Cyclic repairs are scheduled as full replacement at one time is not appropriate or anticipated. Concrete repairs are scheduled to coincide with other concrete components to promote cost efficiencies. Refer to Photo #5, #6, and #7 and Maintenance Protocol 7.6.
2.2	Concrete Curbs & Gutters	14,032	LF	\$32.00	\$449,024	5	2007	2%	\$8,980	2012	2%	\$10,695	2017	2%	\$12,737	The driveways and parking bays are lined with standard-profile, cast-in-place, concrete curbs. The curbs are generally in fair to good condition with many transverse cracks and a few settled sections observed. We observed approximately 35 damaged sections, which should be replaced. As curbs age, cracks, vehicle impact damage, and settlement should be anticipated. Cyclic repairs are scheduled as full replacement at one time is not appropriate or anticipated. Concrete repairs are scheduled to coincide with other concrete components to promote cost efficiencies. Refer to Photo #8 and Maintenance Protocol 7.7.
2.3	Concrete Steps	272	LF	\$85.00	\$23,120	5	2017	25%	\$8,198	2022	25%	\$9,763	2027	25%	\$11,628	Cast-in-place concrete steps are constructed at many locations within the community providing access at grade differentials. These appear to be in generally good condition with only minor cracks observed at a few risers and no settlement or scaling observed. Cyclic repairs are scheduled as full replacement at one time is not appropriate or anticipated. Concrete repairs are scheduled to coincide with other concrete components to promote cost efficiencies. Refer to Maintenance Protocol 7.8.
2.4	Concrete Pool Deck	8,870	SF	\$10.50	\$93,135	10	2017	20%	\$26,420	2027	20%	\$37,472				The pool deck is cast-in-place concrete on grade and is generally in good condition. Some minor cracks in the deck and some newer concrete sections were observed, but we did not see signs of extensive settlement. Cracks should be routed and sealed to prevent water infiltration into the deck. Cyclic repairs are scheduled as full replacement of the entire deck at one time is not appropriate or anticipated. Concrete repairs are scheduled to coincide with other concrete components to promote cost efficiencies. Refer to Maintenance Protocol 7.9.
<b>3. SITE FEATURES</b>																
3.1	Entrance Monuments	1	LS	\$35,000.00	\$35,000	45	2025	100%	\$65,656	2070	100%	\$316,442				A brick and mortar monument is constructed at each entrance to the community. The Braddock Road monument walls are solid brick with double rowlock copings. The embedded cast stone sign is in good condition. The end bollards have a cast stone cap, and the taller bollards have a double cast stone cap with pineapple finials. We observed spalled brick faces and missing mortar of the copings, which should be repaired under operations. The walls are in generally good condition with no extensive deterioration or damage observed. The Roberts Road monument is constructed of mortared concrete block with brick veneer with rowlock coping and two square bollards with fiberglass caps at each end. The monument wall has a fiberglass community name sign embedded. All brick and mortar appear to be in good condition with no deteriorated mortar, cracked mortar or brick, or spalled brick faces observed. It appears that this monument has either been extensively refurbished or is a newer construction than the Braddock Road monument.  With periodic, diligent maintenance performed under the operations budget, the monuments should achieve a long useful service life. Refer to Photo #9 and Maintenance Protocol 7.10.

Reserve Fund Plan for  
KINGS PARK WEST  
Fairfax, Virginia

COMPONENT DATA AND  
ASSET REPLACEMENT SCHEDULE  
TABLE 1  
2007 Through 2026



MASON & MASON  
CAPITAL RESERVE ANALYSTS, INC.

Reston, Virginia

reserves@shantal.net

800-776-6980

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Component No.	Component	Quantity	Unit of Measurement	Unit Cost	Total Asset Base	Typical Service Life (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
3.2	Entrance Monument Lighting	1	EA	\$950.00	\$950	10	2013	100%	\$1,172	2023	100%	\$1,662	2033	100%	\$2,357	One large high pressure sodium fixture inside a metal cage provides illumination to the entrance monument at Braddock Road. It appears to be in serviceable condition, but was not observed illuminated. Landscape lighting generally has a short useful service life due to the proximity to ground and moisture and damage from landscaping practices.
3.3	Entrance Flagpole	1	EA	\$1,800.00	\$1,800	30	2022	100%	\$3,041	2052	100%	\$8,675				An aluminum flagpole approximately 12' high is installed at the entrance monument at Braddock Road. It does not appear to be original and is in good condition.
3.4	Light Poles & Fixtures	30	EA	\$2,500.00	\$75,000	35	2021	100%	\$122,336	2056	100%	\$415,712				27 concrete light poles, one fiberglass pole, and two aluminum poles, generally 12' to 15' high, with carriage lantern fixtures provide illumination for the streets and common areas. They appear to be in generally good condition. Several poles were observed to be out of plumb and should be straightened and secured. Most fixtures were not observed illuminated. No problems were reported with lighting. Refer to Maintenance Protocol 7.11.
3.5	Street Signage Allowance	28	EA	\$150.00	\$4,200	20	2015	50%	\$2,777	2025	50%	\$3,939	2035	50%	\$5,587	Standard metal signs mounted on galvanized pipe posts or perforated metal posts are located throughout the community. Most posts and signs appear to be in good condition, with the exception of a few out of plumb posts. One sign is lying on the ground at the tot lot, which should be re-installed at its proper location. Refer to Maintenance Protocol 7.12.
3.6	Wood Fencing & Railings	1	LS	\$2,800.00	\$2,800	20	2014	100%	\$3,576	2034	100%	\$7,194				This category includes the wood railings adjacent to the footpath over the stream between the pool facility and the community and approximately 64' of three-board fencing mounted on 6" by 6" posts adjacent to a footpath near the storm water management site. The three-board fencing appears to have been in service for many years, but is sound and in serviceable condition. The railings across the streambed have damaged or missing pickets. With replacement of missing or deteriorated components and some stabilization of out-of-plumb components, the railings should provide additional years of service life.
3.7	Multi-Purpose Court	160	SY	\$15.00	\$2,400	18	2022	100%	\$4,054	2040	100%	\$7,605				One multi-purpose court is located adjacent to the tot lot at the center of the community. The court appears to be in good condition having been overlaid sometime in the recent past. Striping is in generally good condition and should be replaced periodically under the operations budget. Refer to Photo #10.
3.8	Basketball Standards	2	EA	\$2,500.00	\$5,000	35	2022	100%	\$8,446	2057	100%	\$28,700				Two basketball goals mounted on galvanized metal standards are installed at the multi-purpose court. They appear to be in good condition with the exception of some rust on the metal backboards. The metal backboards should be painted to extend the useful service life and improve appearance. Replacement is scheduled to coincide with the next multi-purpose court overlay. Refer to Photo #10.
3.9	Tot Lot & Outdoor Furniture Allowance	1	LS	\$24,000.00	\$24,000	15	2013	100%	\$29,599	2028	100%	\$49,998				Tot lot equipment includes a painted metal post swing set, vinyl coated metal benches and trash receptacle, interlocking molded plastic border, and a 14-post, painted metal play module with vinyl coated metal steps and platforms, plastic slides, climbing wall, and play equipment, and painted metal railings and climbing equipment. The module was manufactured by GameTime, A Playcore Company. All equipment appears to have been in service for many years, but is in generally good condition with no deficiencies observed. 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. Refer to Photo #11 and Maintenance Protocol 7.13.
3.10	Storm Water Drainage System Allowance	1	LS	\$15,000.00	\$15,000	5	2008	50%	\$7,767	2013	100%	\$18,500	2018	100%	\$22,032	Storm water drainage is provided by concrete yard drains, curb drop inlets, underground structures, and two storm water detention ponds, both with earthen impoundment structures and concrete swales, and one with a concrete overflow riser. All observable components appear to be in good condition. Some settlement was observed adjacent to storm water structures, which may indicate a lack of backfill compaction during construction. Though storm water drainage systems are a long life component and catastrophic failure is not anticipated, it is prudent to plan for localized repairs and repairs to ancillary damage as the system ages. This category may also be used to address localized erosion issues, such as at the culverts under the footpath near the tot lot. Refer to Photo #12, #13, and #14.
<b>4. POOL BUILDING</b>																
4.1	Re-Roofing Project	1,400	SF	\$3.75	\$5,250	20	2012	100%	\$6,252	2032	100%	\$12,578				The 4/12 pitched roof of the pool building has asphalt shingle covering. Ventilation is provided by soffit vents and a gable vents. It appears that it is an older second cycle replacement. Shingles appear to be in generally good condition with a few missing shingles observed. We observed a gap in the shingle overhang at the ridge, which should be repaired to prevent damage and deterioration to the soffit and trim. Gutters and downspouts are installed, but one gutter seam is leaking. Re-roofing projects include replacement of shingles and deteriorated sheathing, flashing, felt, and gutters and downspouts. Refer to Photo #15 and #16 and Maintenance Protocol 7.14
4.2	Wood Trim & Louvers Allowance	1	LS	\$4,000.00	\$4,000	4	2007	26%	\$1,000	2011	50%	\$2,300	2015	25%	\$1,323	Painted wood trim occurs at louvers, doors, and soffits. Its condition ranges from good to poor with some areas of deteriorated wood and peeling paint observed. The near-term allowance is scheduled to address areas of greatest damage at soffits where we observed peeling paint and rotted trim. Replacements are scheduled at four-year intervals to coincide with repainting projects. Refer to Photo #17 and Maintenance Protocol 7.15.
4.3	Doors	12	EA	\$550.00	\$6,600	40	2018	100%	\$9,894	2058	100%	\$39,231				This category includes all doors of the community center building. The doors appear to have been re-painted many times, and peeling, cracked paint was observed, but we did not observe any damage otherwise. Doors in a wet or chlorine environment generally have a shorter than average useful service life. We have budgeted an allowance to address replacement of damaged or deteriorated doors in conjunction with other restoration projects. Refer to Maintenance Protocol 7.16.
4.4	Pool Building Lighting & Electrical Allowance	1	LS	\$12,000.00	\$12,000	40	2018	100%	\$17,625	2058	100%	\$71,329				This category includes an approximately 15' high galvanized pole with two large security fixtures, two similar fixtures mounted on the building, and two building-mounted double floodlight fixtures. We could not observe the building interiors, but have included an allowance for interior light fixtures and electrical service panels.
4.5	Plumbing Modernization Allowance	1	LS	\$16,000.00	\$16,000	40	2018	100%	\$23,501	2058	100%	\$95,106				Since we were not able to observe the pool building interiors, we have established an allowance to address replacements of sinks, commodes, urinals, showers, and partitions of the shower rooms based on a similarly sized pool facility.

COMPONENT DATA AND  
ASSET REPLACEMENT SCHEDULE

TABLE 1  
2007 Through 2026



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18
Component No.	Component	Quantity	Unit of Measurement	Unit Cost	Total Asset Base	Typical Service Life (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
4.6	Water Heater Allowance	1	EA	\$6,500.00	\$6,500	20	2018	100%	\$9,647	2038	100%	\$19,206				Management reported that a commercial water heater provides the domestic hot water to the shower rooms. We have established an allowance based on pool facilities of a similar size.
<b>6. POOL FACILITY</b>																
5.1	Pool Restoration Project	3,177	SF	\$40.00	\$127,080	40	2020	100%	\$200,168	2060	100%	\$810,067				The swimming pools are in-ground, cast-in-place concrete structures on what appears to be a "cut" site. The pools were covered for the season and could not be observed. However, the pool deck is in generally good condition for its age with only minor cracking observed, which may indicate a lack of extensive settlement of the site. Most outdoor pools of this type, in this area, require a major renovation between twenty-five and forty years of age. The restoration might include beam re-construction, plumbing replacement/remediation, removal and replacement of the white coat, waterline tiles, coping, and sealants. It is prudent to plan for structural renovation now because of the large expense involved if required. This project should also include ADA upgrades and modified, dual-drain systems for safety. Refer to Photo #18 and Maintenance Protocol 7.17.
5.2	Pool White Coat	3,177	SF	\$5.00	\$15,885	7	2013	100%	\$19,591	2027	100%	\$31,956				The pool white coat could not be observed as the pool was covered for the season. Pool white coating seals the pool surface and helps prevent water infiltration into the structure of the pool. White coat generally has a service life of five to seven years. Refer Maintenance Protocol 7.18.
5.3	Pool Coping	305	LF	\$30.00	\$9,150	3	2008	6%	\$474	2011	6%	\$526	2014	5%	\$564	The pool was covered for the season and we could not observe, nor sound the coping tiles. We have scheduled an allowance throughout the study period to address replacements of cracked, loose, or "hollow" tiles. The soft sealant between the coping and the pool deck should have diligent maintenance to prevent water infiltration behind the pool shell, which, if not controlled, will cause freeze/thaw damage. Refer to Maintenance Protocol 7.19.
5.4	Pool Fencing	1	LS	\$9,940.00	\$9,940	40	2020	100%	\$15,657	2060	100%	\$63,362				457 linear feet of standard galvanized, six-foot-high, chain link fencing is constructed at the perimeter of the swimming pool deck. Approximately 50 linear feet of three-foot-high fencing separates the wading pool from the main pool. The fencing is in generally good condition with some rusting observed. Replacement is scheduled to coincide with the pool restoration project. Refer to Maintenance Protocol 7.20.
5.5	Pool Perimeter Equipment Allowance	1	LS	\$7,800.00	\$7,800	40	2020	100%	\$12,288	2060	100%	\$49,721				The observed pool perimeter equipment consists of a fixed lifeguard stand and the base of a diving board. Since we were unable to view all of the equipment, we have included the cost of two stainless steel ladders, and have scheduled replacement coinciding with the pool restoration project.
5.6	Pool Covers	3,536	SF	\$3.50	\$12,376	10	2015	100%	\$16,368	2025	100%	\$23,216	2035	100%	\$32,928	The pools were covered for the season with nylon mesh covers, which appear to be in like new condition. Refer to Photo #18.
5.7	Pool Furniture Allowance	1	LS	\$8,000.00	\$8,000	10	2012	50%	\$4,764	2017	50%	\$5,673	2022	50%	\$6,757	This category provides an allowance for partial replacements of pool chairs, lounges, tables, and umbrellas. Since we were not able to observe the equipment, we have established an allowance based on pool facilities of a similar size. We have budgeted an allowance throughout the study period to replace a percentage of the furniture as necessary. Re-webbing of damaged pieces periodically may extend the useful service life of the entire set of furniture.
5.8	15-Year Pump & Filter Equipment	1	LS	\$15,000.00	\$15,000	15	2010	100%	\$16,658	2025	100%	\$28,138	2040	100%	\$47,630	This category provides an allowance for the main pool pump and strainer assembly and the filtering system. Since we were not able to observe the equipment, we have established an allowance based on pool facilities of a similar size.
5.9	10-Year Pump, Filter, & Chlorination Equipment	1	LS	\$2,500.00	\$2,500	10	2010	100%	\$2,776	2020	100%	\$3,938	2030	100%	\$5,586	This category provides an allowance for the wading pool pump and strainer assembly, filter system, and the chlorination systems for both pools. Since we were not able to observe the equipment, we have established an allowance based on pool facilities of a similar size.
5.10	Pool Storage Shed	1	EA	\$3,000.00	\$3,000	20	2025	100%	\$5,628	2045	100%	\$11,321				An approximately 8' by 8' molded plastic storage shed is installed at the rear of the pool deck. It appears to be in like-new condition and is scheduled for replacement after a statistical useful service life.

## CALENDAR OF EXPENDITURES TABLE 2 EXPLANATION

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

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

Reserve Fund Plan for  
KINGS PARK WEST  
Fairfax, Virginia

CALENDAR OF EXPENDITURES

TABLE 2

2007 Through 2026



MASON & MASON  
CAPITAL RESERVE ANALYSTS, INC.

Reston, Virginia

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YEAR	COMPONENT NO.	COMPONENT	PRESENT COST 2007	FUTURE COST (INFLATED)	TOTAL ANNUAL EXPENDITURES	ACTION
1	2	3	4	5	6	7
2007					2007	
					TOTAL EXPENDITURES	
	1.2	Asphalt Seal Coat	\$26,977	\$26,977		
	1.3	Asphalt Full-Depth Repair & Crack Filling Allowance	\$15,000	\$15,000		
	1.4	Asphalt Footpaths	\$6,240	\$6,240		
	2.1	Concrete Sidewalks	\$19,019	\$19,019		
	2.2	Concrete Curbs & Gutters	\$8,980	\$8,980		
	4.2	Wood Trim & Louvers Allowance	\$1,000	\$1,000		
					\$77,216	
2008					2008	
					TOTAL EXPENDITURES	
	3.10	Storm Water Drainage System Allowance	\$7,500	\$7,767		
	5.3	Pool Coping	\$458	\$474		
					\$8,241	
2009					2009	
					NO EXPENDITURES	
2010					2010	
					TOTAL EXPENDITURES	
	5.8	15-Year Pump & Filter Equipment	\$15,000	\$16,658		
	5.9	10-Year Pump, Filter, & Chlorination Equipment	\$2,500	\$2,776		
					\$19,434	
2011					2011	
					TOTAL EXPENDITURES	
	4.2	Wood Trim & Louvers Allowance	\$2,000	\$2,300		
	5.3	Pool Coping	\$458	\$526		
					\$2,826	
2012					2012	
					TOTAL EXPENDITURES	
	2.1	Concrete Sidewalks	\$11,411	\$13,590		
	2.2	Concrete Curbs & Gutters	\$8,980	\$10,695		
	4.1	Re-Roofing Project	\$5,250	\$6,252		
	5.7	Pool Furniture Allowance	\$4,000	\$4,764		
					\$35,302	
2013					2013	
					TOTAL EXPENDITURES	
	1.2	Asphalt Seal Coat	\$26,977	\$33,271		
	1.3	Asphalt Full-Depth Repair & Crack Filling Allowance	\$22,500	\$27,749		
	1.4	Asphalt Footpaths	\$1,498	\$1,847		
	3.2	Entrance Monument Lighting	\$950	\$1,172		
	3.9	Tot Lot & Outdoor Furniture Allowance	\$24,000	\$29,599		
	3.10	Storm Water Drainage System Allowance	\$15,000	\$18,500		
	5.2	Pool White Coat	\$15,885	\$19,591		
					\$131,729	
2014					2014	
					TOTAL EXPENDITURES	
	3.6	Wood Fencing & Railings	\$2,800	\$3,576		
	5.3	Pool Coping	\$458	\$584		
					\$4,160	
2015					2015	
					TOTAL EXPENDITURES	
	3.5	Street Signage Allowance	\$2,100	\$2,777		
	4.2	Wood Trim & Louvers Allowance	\$1,000	\$1,323		
	5.6	Pool Covers	\$12,376	\$16,368		
					\$20,468	
2016					2016	
					TOTAL EXPENDITURES	
	1.1	Asphalt Restoration Project	\$320,520	\$438,994		
	1.3	Asphalt Full-Depth Repair & Crack Filling Allowance	\$30,000	\$41,089		
	1.4	Asphalt Footpaths	\$4,742	\$6,495		
					\$486,578	

Reserve Fund Plan for  
KINGS PARK WEST  
Fairfax, Virginia

CALENDAR OF EXPENDITURES  
TABLE 2  
2007 Through 2026



YEAR	COMPONENT NO.	COMPONENT	PRESENT COST 2007	FUTURE COST (INFLATED)	TOTAL ANNUAL EXPENDITURES	ACTION
1	2	3	4	5	6	7
2017					2017	
					TOTAL EXPENDITURES	
	2.1	Concrete Sidewalks	\$11,411	\$16,185		
	2.2	Concrete Curbs & Gutters	\$8,980	\$12,737		
	2.3	Concrete Steps	\$5,780	\$8,198		
	2.4	Concrete Pool Deck	\$18,627	\$26,420		
	5.3	Pool Coping	\$458	\$649		
	5.7	Pool Furniture Allowance	\$4,000	\$5,673		
					\$69,862	
2018					2018	
					TOTAL EXPENDITURES	
	3.10	Storm Water Drainage System Allowance	\$15,000	\$22,032		
	4.3	Doors	\$6,600	\$9,694		
	4.4	Pool Building Lighting & Electrical Allowance	\$12,000	\$17,625		
	4.5	Plumbing Modernization Allowance	\$16,000	\$23,501		
	4.6	Water Heater Allowance	\$6,500	\$9,547		
					\$82,399	
2019					2019	
					TOTAL EXPENDITURES	
	4.2	Wood Trim & Louvers Allowance	\$2,000	\$3,042		
					\$3,042	
2020					2020	
					TOTAL EXPENDITURES	
	5.1	Pool Restoration Project	\$127,080	\$200,168		
	5.4	Pool Fencing	\$9,940	\$15,657		
	5.5	Pool Perimeter Equipment Allowance	\$7,800	\$12,286		
	5.9	10-Year Pump, Filter, & Chlorination Equipment	\$2,500	\$3,938		
					\$232,048	
2021					2021	
					TOTAL EXPENDITURES	
	3.4	Light Poles & Fixtures	\$75,000	\$122,336		
					\$122,336	
2022					2022	
					TOTAL EXPENDITURES	
	1.2	Asphalt Seal Coat	\$26,977	\$45,569		
	1.3	Asphalt Full-Depth Repair & Crack Filling Allowance	\$7,500	\$12,669		
	1.4	Asphalt Footpaths	\$6,240	\$10,540		
	2.1	Concrete Sidewalks	\$11,411	\$19,276		
	2.2	Concrete Curbs & Gutters	\$8,980	\$15,170		
	2.3	Concrete Steps	\$5,780	\$9,763		
	3.3	Entrance Flagpole	\$1,800	\$3,041		
	3.7	Multi-Purpose Court	\$2,400	\$4,054		
	3.8	Basketball Standards	\$5,000	\$8,446		
	5.7	Pool Furniture Allowance	\$4,000	\$6,757		
					\$135,283	
2023					2023	
					TOTAL EXPENDITURES	
	3.2	Entrance Monument Lighting	\$950	\$1,662		
	3.10	Storm Water Drainage System Allowance	\$15,000	\$26,239		
	4.2	Wood Trim & Louvers Allowance	\$3,000	\$5,248		
	5.3	Pool Coping	\$458	\$800		
					\$33,948	
2024					2024	
					NO EXPENDITURES	
2025					2025	
					TOTAL EXPENDITURES	
	3.1	Entrance Monuments	\$35,000	\$65,656		
	3.5	Street Signage Allowance	\$2,100	\$3,939		
	5.6	Pool Covers	\$12,376	\$23,216		
	5.8	15-Year Pump & Filter Equipment	\$15,000	\$28,138		
	5.10	Pool Storage Shed	\$3,000	\$5,628		
					\$126,578	
2026					2026	
					TOTAL EXPENDITURES	
	5.3	Pool Coping	\$458	\$889		
					\$889	

## 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  
**KINGS PARK WEST**  
 Fairfax, Virginia

**CURRENT FUNDING ANALYSIS**  
**CASH FLOW METHOD**  
**TABLE 3**



Reston, Virginia reserves@shentel.net 800-776-6980  
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Beginning Reserve Fund Balance: \$452,599

Annual Contribution To Reserves: \$45,600

Contribution Percentage Increase: 0.00%

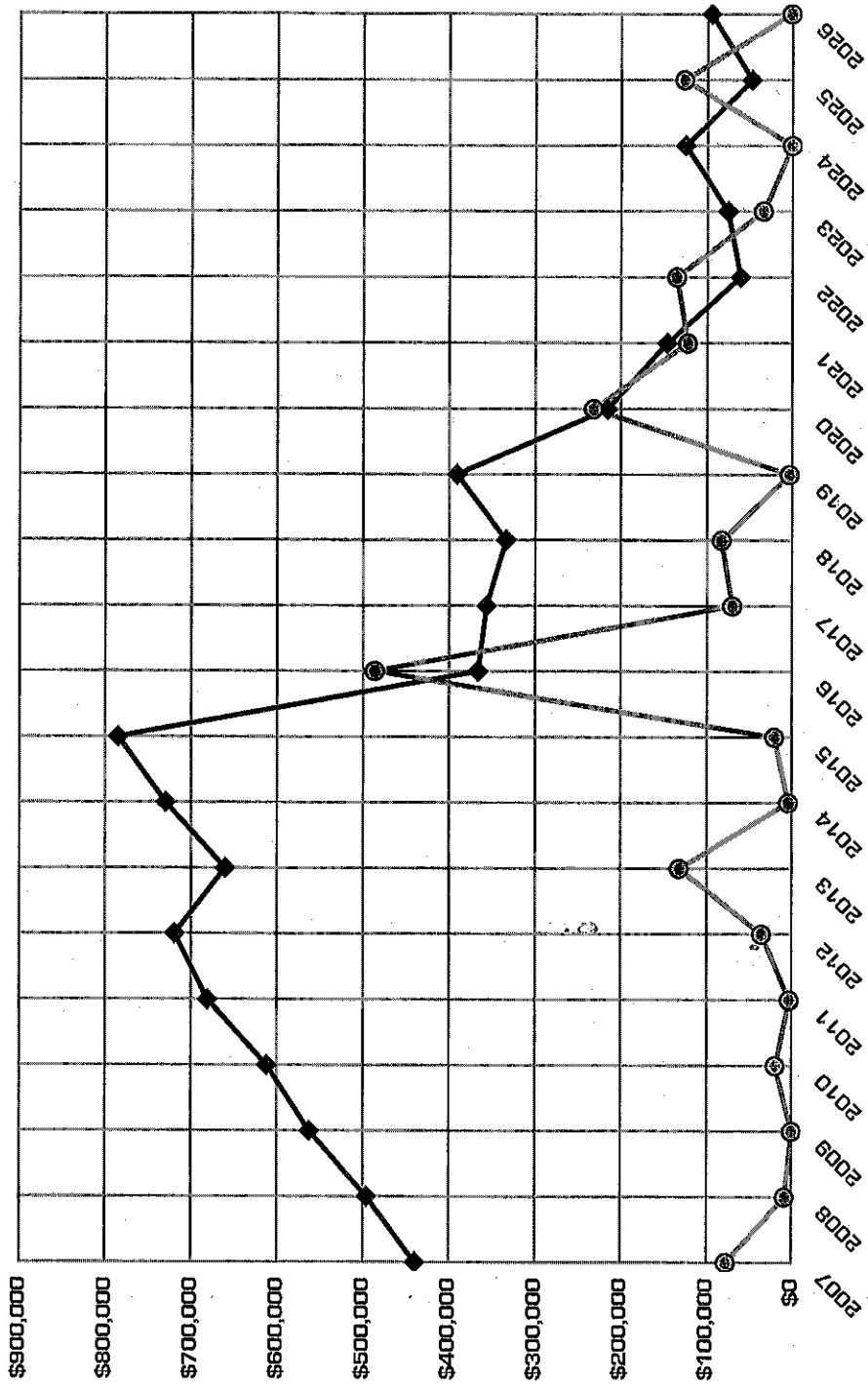
Annual Inflation Factor: 3.50%

Annual Interest Income Factor: 4.00%

YEAR	TOTAL ASSET BASE	BEGINNING RESERVE FUND BALANCE	ANNUAL CONTRIBUTION	INTEREST INCOME	CAPITAL EXPENDITURES	ENDING RESERVE FUND BALANCE	BALANCE TO ASSET BASE RATIO
1	2	3	4	5	6	7	8
2007	\$1,762,862	\$452,599	\$45,600	\$16,757	\$77,216	\$439,739	25%
2008	\$1,824,562	\$439,739	\$45,600	\$18,736	\$8,241	\$495,835	27%
2009	\$1,888,422	\$495,835	\$45,600	\$21,201	\$0	\$562,636	30%
2010	\$1,954,517	\$562,636	\$45,600	\$23,499	\$19,434	\$612,301	31%
2011	\$2,022,925	\$612,301	\$45,600	\$25,885	\$2,826	\$680,959	34%
2012	\$2,093,727	\$680,959	\$45,600	\$27,974	\$35,302	\$719,232	34%
2013	\$2,167,008	\$719,232	\$45,600	\$27,431	\$131,729	\$660,535	30%
2014	\$2,242,853	\$660,535	\$45,600	\$27,821	\$4,160	\$729,795	33%
2015	\$2,321,353	\$729,795	\$45,600	\$30,207	\$20,468	\$785,213	34%
2016	\$2,402,600	\$785,213	\$45,600	\$22,384	\$486,578	\$366,619	15%
2017	\$2,486,691	\$366,619	\$45,600	\$14,414	\$69,862	\$355,771	14%
2018	\$2,573,725	\$355,771	\$45,600	\$13,739	\$82,399	\$333,711	13%
2019	\$2,663,806	\$333,711	\$45,600	\$14,530	\$3,042	\$390,799	15%
2020	\$2,757,039	\$390,799	\$45,600	\$11,864	\$232,048	\$216,214	8%
2021	\$2,853,535	\$216,214	\$45,600	\$7,142	\$122,336	\$146,620	5%
2022	\$2,953,409	\$146,620	\$45,600	\$4,025	\$135,283	\$60,961	2%
2023	\$3,056,778	\$60,961	\$45,600	\$2,744	\$33,948	\$75,356	2%
2024	\$3,163,766	\$75,356	\$45,600	\$4,070	\$0	\$125,027	4%
2025	\$3,274,497	\$125,027	\$45,600	\$3,335	\$126,578	\$47,384	1%
2026	\$3,389,105	\$47,384	\$45,600	\$2,911	\$889	\$95,006	3%
<b>STUDY PERIOD TOTALS</b>			\$912,000	\$322,749	\$1,592,341		

CURRENT FUNDING ANALYSIS  
CASH FLOW METHOD  
TABLE 3

◆ ENDING RESERVE FUND BALANCE  
● CAPITAL EXPENDITURES



Reserve Fund Plan for  
**KINGS PARK WEST**  
 Fairfax, Virginia

**ALTERNATIVE FUNDING ANALYSIS**  
**CASH FLOW METHOD**  
**TABLE 3.1**



Reston, Virginia  
 reserves@shentel.net 800-776-6880  
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Annual Contribution To Reserves: \$45,600

Annual Inflation Factor: 3.50%

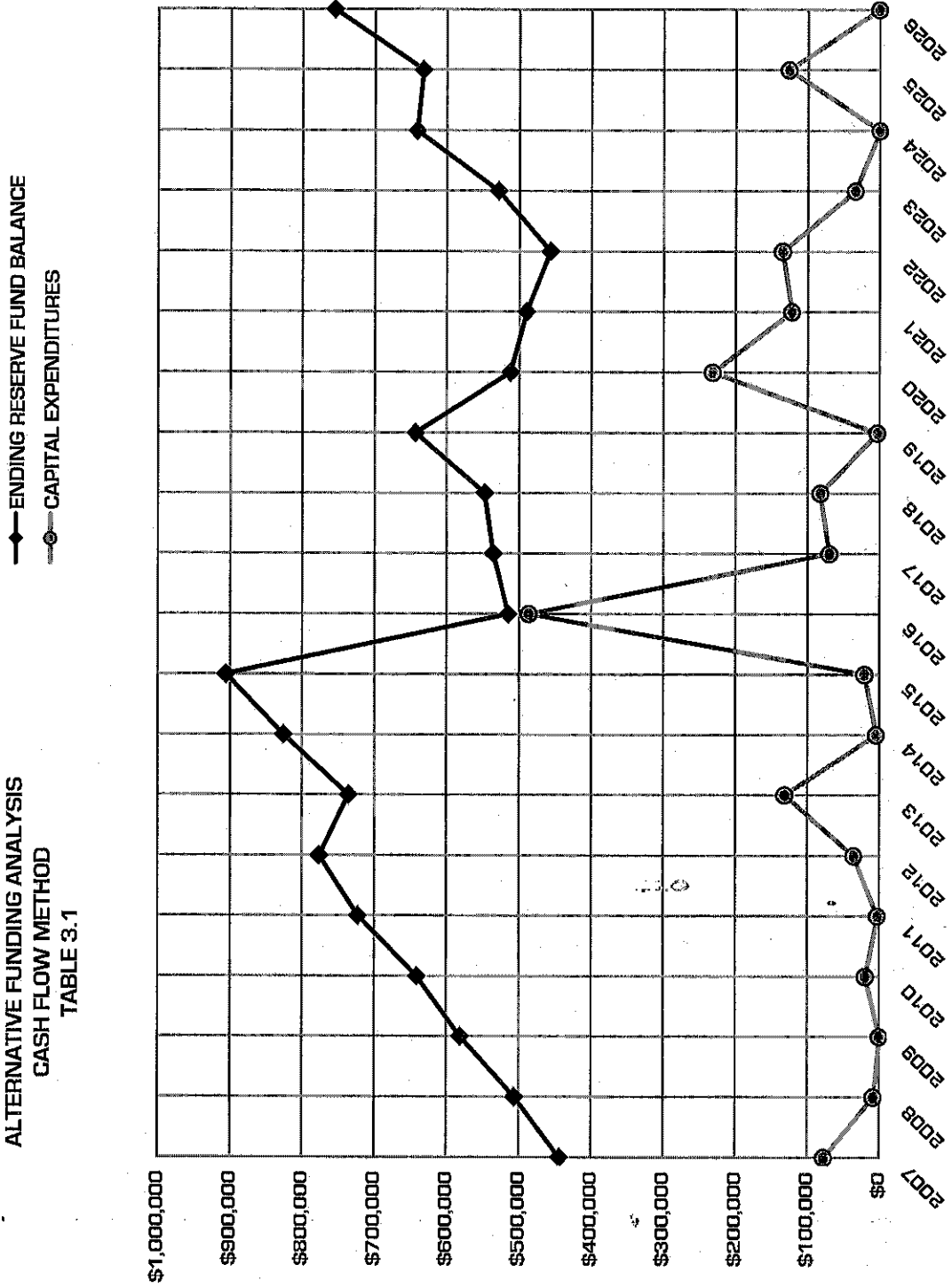
Contribution Percentage Increase: 3.50%

Beginning Reserve Fund Balance: \$452,599

Annual Interest Income Factor: 4.00%

YEAR	TOTAL ASSET BASE	BEGINNING RESERVE FUND BALANCE	ANNUAL CONTRIBUTION	INTEREST INCOME	CAPITAL EXPENDITURES	ENDING RESERVE FUND BALANCE	BALANCE TO ASSET BASE RATIO
1	2	3	4	5	6	7	8
2007	\$1,762,862	\$452,599	\$49,681	\$18,936	\$77,216	\$444,000	25%
2008	\$1,824,562	\$444,000	\$51,420	\$19,037	\$8,241	\$506,217	28%
2009	\$1,888,422	\$506,217	\$53,220	\$21,791	\$0	\$581,228	31%
2010	\$1,954,517	\$581,228	\$55,083	\$24,465	\$19,434	\$641,341	33%
2011	\$2,022,925	\$641,341	\$57,011	\$27,318	\$2,826	\$722,844	36%
2012	\$2,093,727	\$722,844	\$59,006	\$29,974	\$35,302	\$776,522	37%
2013	\$2,167,008	\$776,522	\$61,071	\$30,105	\$131,729	\$735,970	34%
2014	\$2,242,853	\$735,970	\$63,209	\$31,280	\$4,160	\$826,298	37%
2015	\$2,321,353	\$826,298	\$65,421	\$34,653	\$20,468	\$905,904	39%
2016	\$2,402,600	\$905,904	\$67,711	\$27,786	\$486,578	\$514,822	21%
2017	\$2,486,691	\$514,822	\$70,081	\$20,989	\$69,862	\$536,029	22%
2018	\$2,573,725	\$536,029	\$72,533	\$21,633	\$82,399	\$547,797	21%
2019	\$2,663,806	\$547,797	\$75,072	\$23,898	\$3,042	\$643,725	24%
2020	\$2,757,039	\$643,725	\$77,700	\$22,872	\$232,048	\$512,249	19%
2021	\$2,853,535	\$512,249	\$80,419	\$19,967	\$122,336	\$490,298	17%
2022	\$2,953,409	\$490,298	\$83,234	\$18,852	\$135,283	\$457,101	15%
2023	\$3,056,778	\$457,101	\$86,147	\$19,772	\$33,948	\$529,071	17%
2024	\$3,163,766	\$529,071	\$89,162	\$23,511	\$0	\$641,744	20%
2025	\$3,274,497	\$641,744	\$92,283	\$25,411	\$126,578	\$632,860	19%
2026	\$3,389,105	\$632,860	\$95,513	\$27,859	\$889	\$755,343	22%
<b>STUDY PERIOD TOTALS</b>			<b>\$1,404,974</b>	<b>\$490,111</b>	<b>\$1,592,341</b>		

ALTERNATIVE FUNDING ANALYSIS  
 CASH FLOW METHOD  
 TABLE 3.1



## 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.

FUNDING ANALYSIS  
COMPONENT METHOD  
TABLE 4



Beginning Reserve Fund Balance:  
\$452,599

Component Number	COMPONENT	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
1.1	Asphalt Restoration Project	\$14,533	\$14,533	\$14,533	\$14,533	\$14,533	\$14,533	\$14,533	\$14,533	\$14,533	\$14,533	\$31,209	\$31,209	\$31,209	\$31,209	\$31,209	\$31,209	\$31,209	\$31,209	\$31,209	\$31,209
1.2	Asphalt Seal Coat	\$2,451	\$4,899	\$4,899	\$4,899	\$4,899	\$4,899	\$4,899	\$4,201	\$4,201	\$4,201	\$4,201	\$4,201	\$4,201	\$4,201	\$4,201	\$4,201	\$8,276	\$8,276	\$8,276	\$8,276
1.3	Asphalt Full-Depth Repair & Crack Filling All	\$705	\$4,086	\$4,086	\$4,086	\$4,086	\$4,086	\$4,086	\$12,871	\$12,871	\$12,871	\$1,865	\$1,865	\$1,865	\$1,865	\$1,865	\$1,865	\$4,601	\$4,601	\$4,601	\$4,601
1.4	Asphalt Footpaths	\$567	\$272	\$272	\$272	\$272	\$272	\$272	\$2,035	\$2,035	\$2,035	\$1,552	\$1,552	\$1,552	\$1,552	\$1,552	\$1,552	\$1,914	\$1,914	\$1,914	\$1,914
2.1	Concrete Sidewalks	\$14,832	\$2,452	\$2,452	\$2,452	\$2,452	\$2,452	\$2,920	\$2,920	\$2,920	\$2,920	\$2,920	\$3,477	\$3,477	\$3,477	\$3,477	\$3,477	\$4,141	\$4,141	\$4,141	\$4,141
2.2	Concrete Curbs & Gutters	\$7,003	\$1,929	\$1,929	\$1,929	\$1,929	\$1,929	\$2,298	\$2,298	\$2,298	\$2,298	\$2,298	\$2,737	\$2,737	\$2,737	\$2,737	\$2,737	\$3,259	\$3,259	\$3,259	\$3,259
2.3	Concrete Steps	\$472	\$472	\$472	\$472	\$472	\$472	\$472	\$472	\$472	\$472	\$472	\$1,761	\$1,761	\$1,761	\$1,761	\$1,761	\$2,098	\$2,098	\$2,098	\$2,098
2.4	Concrete Pool Deck	\$1,522	\$1,522	\$1,522	\$1,522	\$1,522	\$1,522	\$1,522	\$1,522	\$1,522	\$1,522	\$1,522	\$3,044	\$3,044	\$3,044	\$3,044	\$3,044	\$3,044	\$3,044	\$3,044	\$3,044
3.1	Entrance Monuments	\$1,031	\$1,031	\$1,031	\$1,031	\$1,031	\$1,031	\$1,031	\$1,031	\$1,031	\$1,031	\$1,031	\$1,031	\$1,031	\$1,031	\$1,031	\$1,031	\$1,031	\$1,031	\$1,031	\$2,507
3.2	Entrance Monument Lighting	\$68	\$68	\$68	\$68	\$68	\$68	\$68	\$135	\$135	\$135	\$135	\$135	\$135	\$135	\$135	\$135	\$135	\$135	\$191	\$191
3.3	Entrance Flagpole	\$57	\$57	\$57	\$57	\$57	\$57	\$57	\$57	\$57	\$57	\$57	\$57	\$57	\$57	\$57	\$57	\$149	\$149	\$149	\$149
3.4	Light Poles & Fixtures	\$2,460	\$2,460	\$2,460	\$2,460	\$2,460	\$2,460	\$2,460	\$2,460	\$2,460	\$2,460	\$2,460	\$2,460	\$2,460	\$2,460	\$2,460	\$2,460	\$5,441	\$5,441	\$5,441	\$5,441
3.5	Street Signage Allowance	\$158	\$158	\$158	\$158	\$158	\$158	\$158	\$158	\$158	\$320	\$320	\$320	\$320	\$320	\$320	\$320	\$320	\$320	\$320	\$454
3.6	Wood Fencing & Railings	\$133	\$133	\$133	\$133	\$133	\$133	\$133	\$133	\$235	\$235	\$235	\$235	\$235	\$235	\$235	\$235	\$235	\$235	\$235	\$235
3.7	Multi-Purpose Court	\$114	\$114	\$114	\$114	\$114	\$114	\$114	\$114	\$114	\$114	\$114	\$114	\$114	\$114	\$114	\$114	\$288	\$288	\$288	\$288
3.8	Basketball Standards	\$157	\$157	\$157	\$157	\$157	\$157	\$157	\$157	\$157	\$157	\$157	\$157	\$157	\$157	\$157	\$157	\$376	\$376	\$376	\$376
3.9	Tot Lot & Outdoor Furniture Allowance	\$1,295	\$1,295	\$1,295	\$1,295	\$1,295	\$1,295	\$1,295	\$2,430	\$2,430	\$2,430	\$2,430	\$2,430	\$2,430	\$2,430	\$2,430	\$2,430	\$2,430	\$2,430	\$2,430	\$2,430
3.10	Storm Water Drainage System Allowance	\$6	\$6	\$3,337	\$3,337	\$3,337	\$3,337	\$3,337	\$3,974	\$3,974	\$3,974	\$3,974	\$3,974	\$3,974	\$4,733	\$4,733	\$4,733	\$4,733	\$5,637	\$5,637	\$5,637
4.1	Re-Roofing Project	\$296	\$296	\$296	\$296	\$296	\$296	\$410	\$410	\$410	\$410	\$410	\$410	\$410	\$410	\$410	\$410	\$410	\$410	\$410	\$410
4.2	Wood Trim & Louvers Allowance	\$17	\$529	\$529	\$529	\$529	\$529	\$304	\$304	\$304	\$700	\$700	\$700	\$700	\$1,208	\$1,208	\$1,208	\$1,208	\$463	\$463	\$463
4.3	Doors	\$273	\$273	\$273	\$273	\$273	\$273	\$273	\$273	\$273	\$273	\$273	\$273	\$397	\$397	\$397	\$397	\$397	\$397	\$397	\$397
4.4	Pool Building Lighting & Electrical Allowanc	\$496	\$496	\$496	\$496	\$496	\$496	\$496	\$496	\$496	\$496	\$496	\$496	\$722	\$722	\$722	\$722	\$722	\$722	\$722	\$722
4.5	Plumbing Modernization Allowance	\$662	\$662	\$662	\$662	\$662	\$662	\$662	\$662	\$662	\$662	\$662	\$662	\$962	\$962	\$962	\$962	\$962	\$962	\$962	\$962
4.6	Water Heater Allowance	\$269	\$269	\$269	\$269	\$269	\$269	\$269	\$269	\$269	\$269	\$269	\$269	\$626	\$626	\$626	\$626	\$626	\$626	\$626	\$626
5.1	Pool Restoration Project	\$4,592	\$4,592	\$4,592	\$4,592	\$4,592	\$4,592	\$4,592	\$4,592	\$4,592	\$4,592	\$4,592	\$4,592	\$4,592	\$4,592	\$8,197	\$8,197	\$8,197	\$8,197	\$8,197	\$8,197
5.2	Pool White Coat	\$1,627	\$1,627	\$1,627	\$1,627	\$1,627	\$1,627	\$1,627	\$1,701	\$1,701	\$1,701	\$1,701	\$1,701	\$1,701	\$1,701	\$1,701	\$1,701	\$1,701	\$1,701	\$1,701	\$1,701
5.3	Pool Coping	\$181	\$181	\$165	\$165	\$165	\$183	\$183	\$183	\$203	\$203	\$203	\$118	\$118	\$118	\$118	\$118	\$118	\$278	\$278	\$278
5.4	Pool Fencing	\$359	\$359	\$359	\$359	\$359	\$359	\$359	\$359	\$359	\$359	\$359	\$359	\$359	\$359	\$359	\$641	\$641	\$641	\$641	\$641
5.5	Pool Perimeter Equipment Allowance	\$282	\$282	\$282	\$282	\$282	\$282	\$282	\$282	\$282	\$282	\$282	\$282	\$282	\$282	\$503	\$503	\$503	\$503	\$503	\$503
5.6	Pool Covers	\$934	\$934	\$934	\$934	\$934	\$934	\$934	\$934	\$934	\$1,886	\$1,886	\$1,886	\$1,886	\$1,886	\$1,886	\$1,886	\$1,886	\$1,886	\$1,886	\$2,675
5.7	Pool Furniture Allowance	\$559	\$559	\$559	\$559	\$559	\$559	\$1,023	\$1,023	\$1,023	\$1,023	\$1,023	\$1,219	\$1,219	\$1,219	\$1,219	\$1,219	\$1,452	\$1,452	\$1,452	\$1,452
5.8	15-Year Pump & Filter Equipment	\$1,047	\$1,047	\$1,047	\$1,047	\$1,368	\$1,368	\$1,368	\$1,368	\$1,368	\$1,368	\$1,368	\$1,368	\$1,368	\$1,368	\$1,368	\$1,368	\$1,368	\$1,368	\$1,368	\$1,368
5.9	10-Year Pump, Filter, & Chlorination Equipm	\$183	\$183	\$183	\$183	\$320	\$320	\$320	\$320	\$320	\$320	\$320	\$320	\$320	\$320	\$454	\$454	\$454	\$454	\$454	\$454
5.10	Pool Storage Shed	\$136	\$136	\$136	\$136	\$136	\$136	\$136	\$136	\$136	\$136	\$136	\$136	\$136	\$136	\$136	\$136	\$136	\$136	\$136	\$369
<b>ANNUAL COMPONENT CONTRIBUTION TOTALS</b>		<b>\$59,475</b>	<b>\$48,068</b>	<b>\$51,384</b>	<b>\$51,384</b>	<b>\$51,841</b>	<b>\$51,634</b>	<b>\$53,050</b>	<b>\$64,812</b>	<b>\$64,934</b>	<b>\$66,444</b>	<b>\$71,632</b>	<b>\$75,549</b>	<b>\$77,316</b>	<b>\$77,823</b>	<b>\$82,065</b>	<b>\$85,046</b>	<b>\$94,460</b>	<b>\$94,836</b>	<b>\$94,836</b>	<b>\$98,410</b>

COMPONENT METHOD SUMMARY	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
BEGINNING RESERVE FUND BALANCE	\$452,599	\$452,919	\$512,074	\$585,447	\$641,951	\$718,196	\$764,152	\$714,899	\$806,007	\$884,289	\$491,032	\$512,855	\$526,760	\$624,125	\$491,976	\$470,882	\$438,746	\$518,464	\$636,503	\$630,014
PLUS ANNUAL COMPONENT CONTRIBUTION	\$59,475	\$48,068	\$51,384	\$51,384	\$51,841	\$51,634	\$53,050	\$64,812	\$64,934	\$66,444	\$71,632	\$75,549	\$77,316	\$77,823	\$82,065	\$85,046	\$94,460	\$94,836	\$94,836	\$98,410
CAPITAL EXPENDITURES	\$77,216	\$8,241	\$0	\$19,434	\$2,826	\$35,302	\$131,729	\$4,160	\$20,468	\$486,578	\$69,862	\$82,399	\$3,042	\$232,048	\$122,336	\$135,283	\$33,948	\$0	\$126,578	\$889
SUBTOTAL	\$434,858	\$492,746	\$563,457	\$617,396	\$690,966	\$734,529	\$685,474	\$775,550	\$850,473	\$464,155	\$492,802	\$506,005	\$601,034	\$469,900	\$451,705	\$420,645	\$499,257	\$613,300	\$604,762	\$727,536
PLUS INTEREST INCOME @ 4.00%	\$18,061	\$19,327	\$21,990	\$24,555	\$27,230	\$29,623	\$29,425	\$30,457	\$33,816	\$26,878	\$20,054	\$20,755	\$23,091	\$22,076	\$19,177	\$18,101	\$19,207	\$23,203	\$25,253	\$27,807
ENDING RESERVE FUND BALANCE	\$452,919	\$512,074	\$585,447	\$641,951	\$718,196	\$764,152	\$714,899	\$806,007	\$884,289	\$491,032	\$512,855	\$526,760	\$624,125	\$491,976	\$470,882	\$438,746	\$518,464	\$636,503	\$630,014	\$755,343

STUDY PERIOD TOTAL CONTRIBUTIONS \$1,415,000

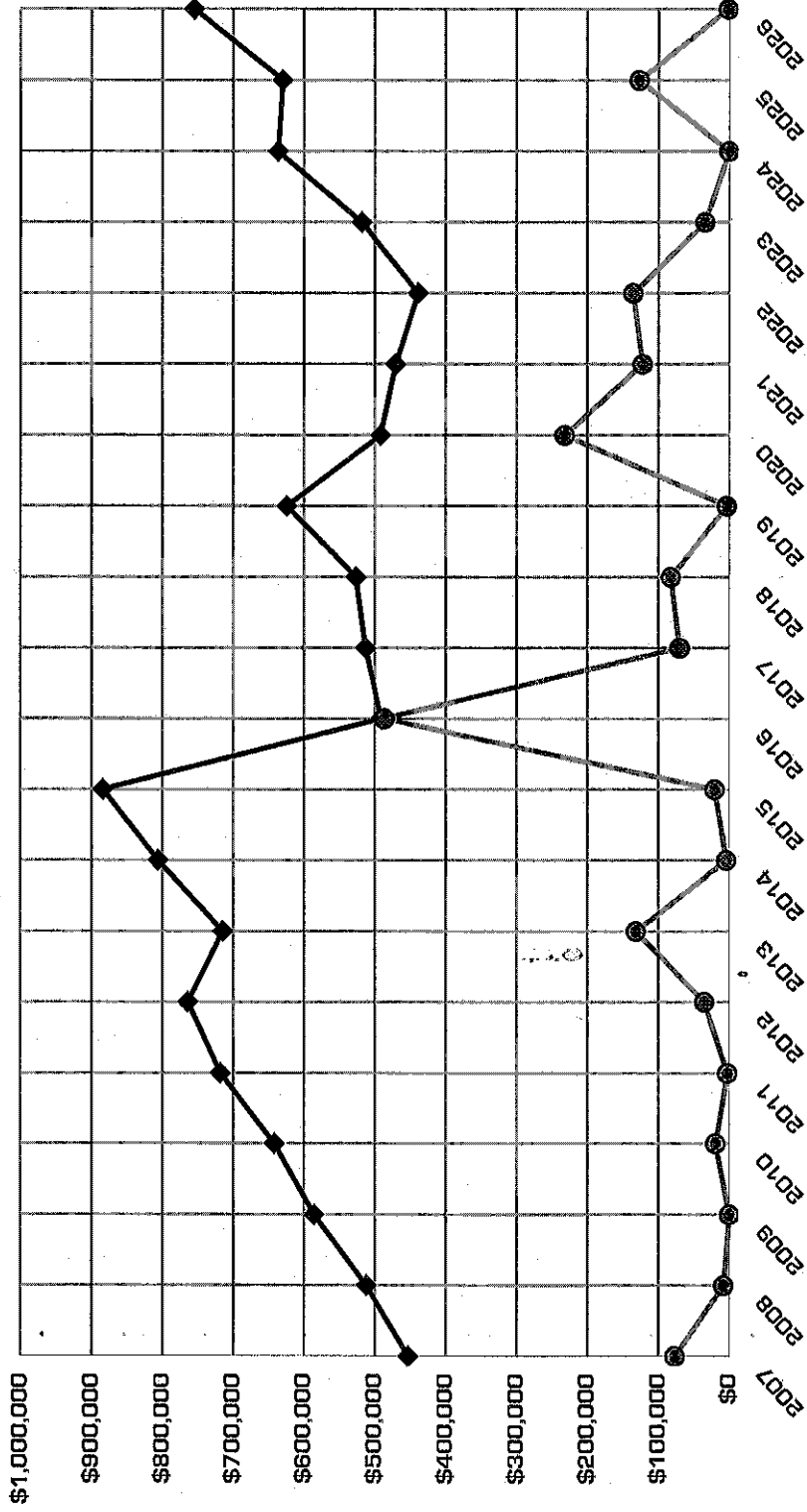
STUDY PERIOD INTEREST TOTAL \$480,086

AVERAGE ANNUAL CONTRIBUTION \$70,750

TOTAL EXPENDITURES \$1,592,341

FUNDING ANALYSIS  
 COMPONENT METHOD  
 TABLE 4

◆ ENDING RESERVE FUND BALANCE  
 ● CAPITAL EXPENDITURES



PHOTOGRAPHS

WITH

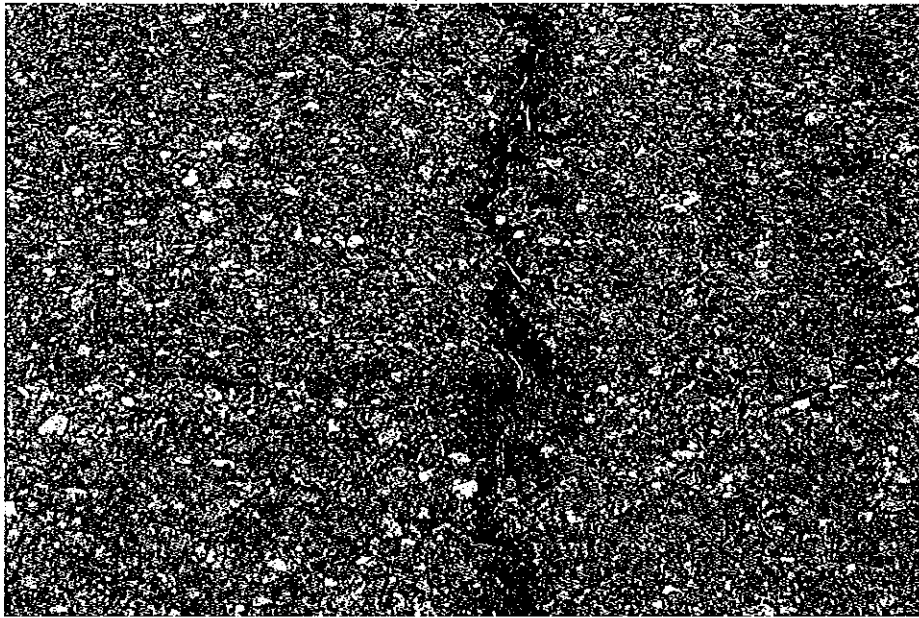
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NARRATIVES

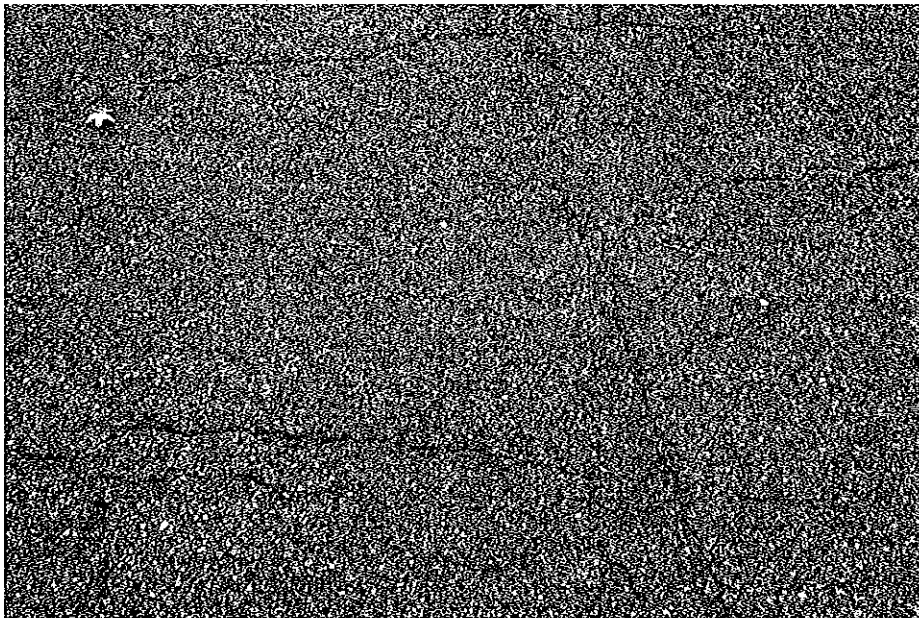


MASON & MASON

CARDINAL RESERVE ANALYSIS, INC.



**PHOTO #1**  
Random longitudinal cracking is beginning to appear particularly along the main axis of most driveways. These open cracks require crack filling maintenance prior to application of seal coat



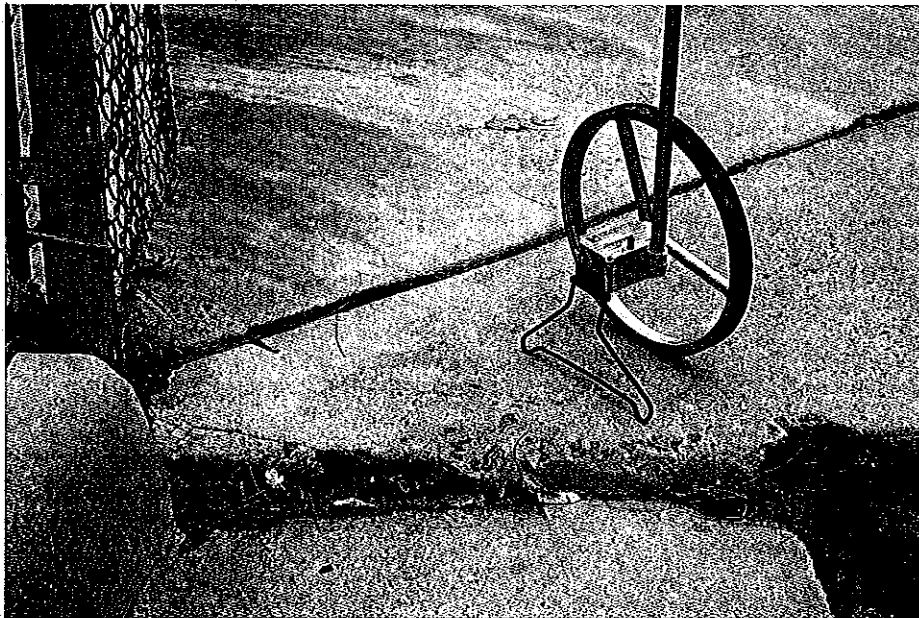
**PHOTO #2**  
Deflected pavement, indicative of sub-base damage, is beginning to appear along the main axis of most driveways. Full-depth repair is required prior to application of seal coat



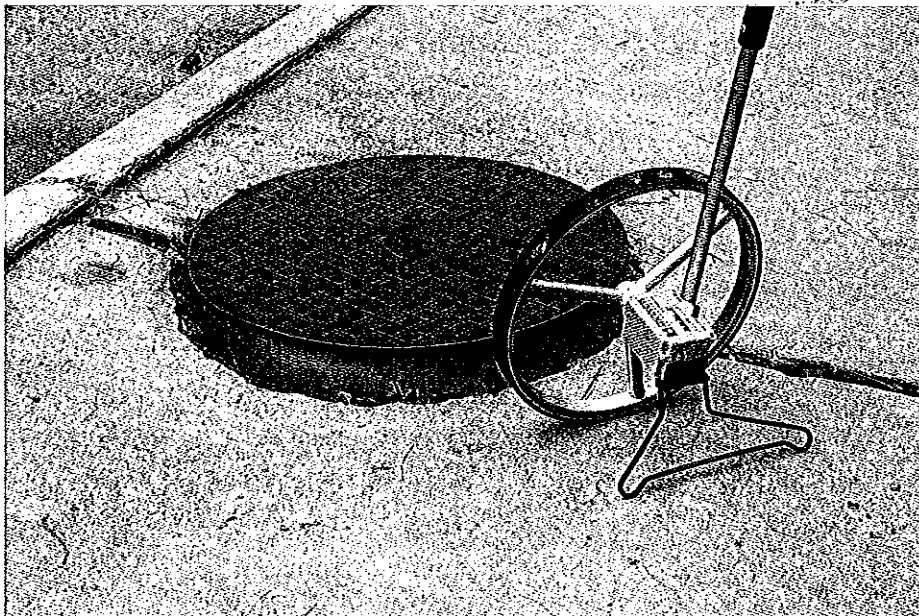
**PHOTO #3**  
Older damaged sections of asphalt footpath requiring replacement near-term



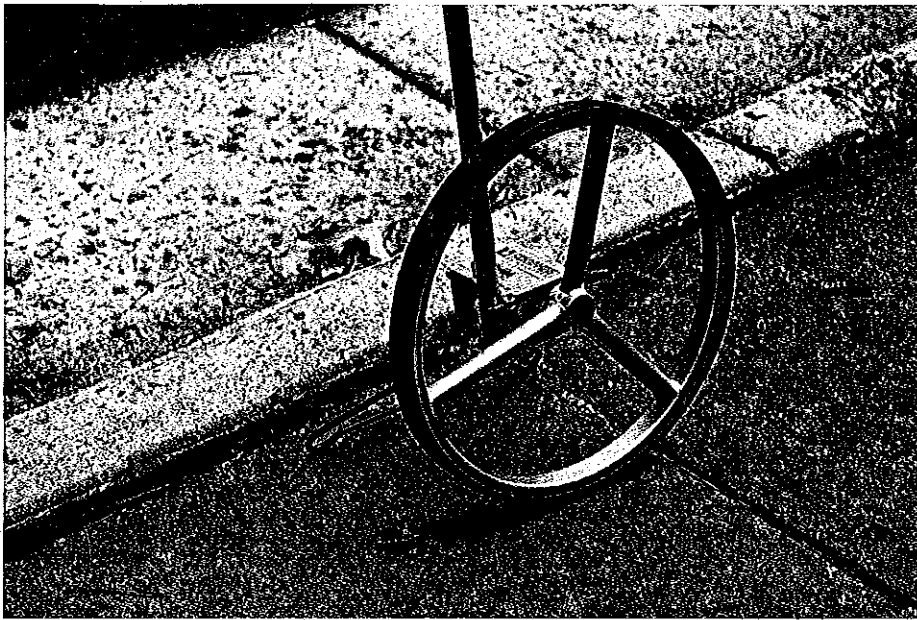
**PHOTO #4**  
Recent overlay  
replacement of a major  
section of asphalt  
footpath appearing to be  
in good condition



**PHOTO #5**  
Differential settlement of  
adjacent concrete  
components resulting in a  
large tripping hazard  
requiring repair at the  
pool entrance



**PHOTO #6**  
Settlement of concrete  
flatwork at a utility cover  
resulting in a large  
tripping hazard requiring  
repair. Seven problem  
areas were observed



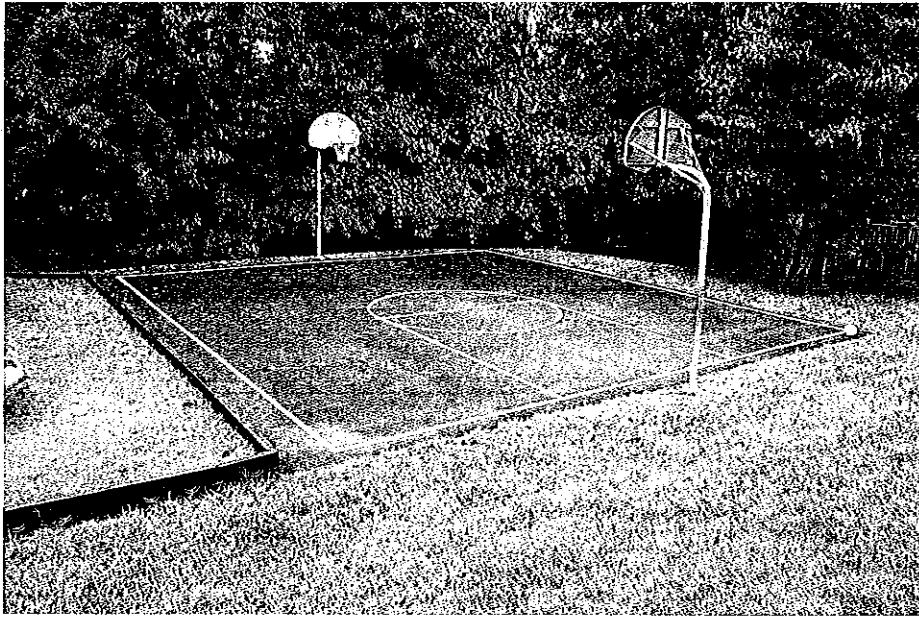
**PHOTO #7**  
Differential settlement of flatwork adjacent to a curb resulting in a tripping hazard requiring repair



**PHOTO #8**  
Impact damaged curbs requiring replacement



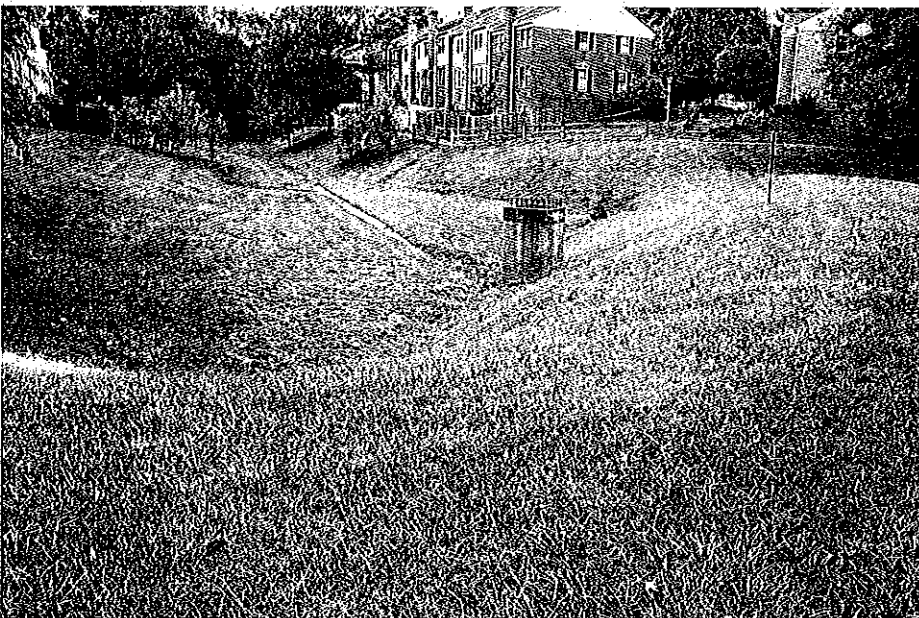
**PHOTO #9**  
Deteriorating brick coping on the main entrance monument requiring replacement under the operations budget to maximize service life



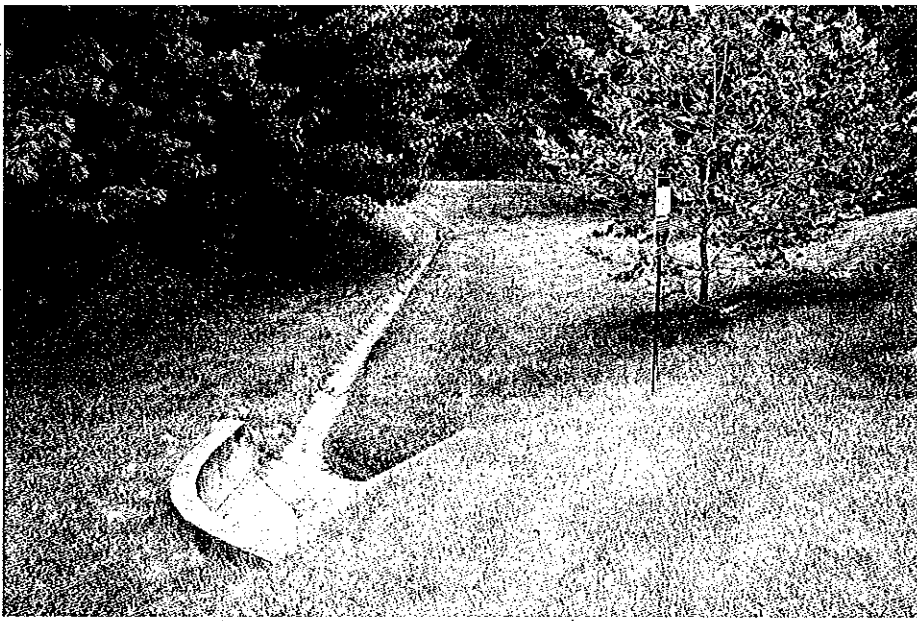
**PHOTO #10**  
Overview of the multi-purpose court in good condition, having been overlaid in the recent past. The metal backboards would benefit from cleaning and painting to help stop the rust



**PHOTO #11**  
Overview of the tot lot, although not new, appearing to be in continuing good condition



**PHOTO #12**  
Overview of the larger of two storm water management ponds with earthen impoundment structure, concrete overflow riser, and concrete swales, all appearing to be in good condition



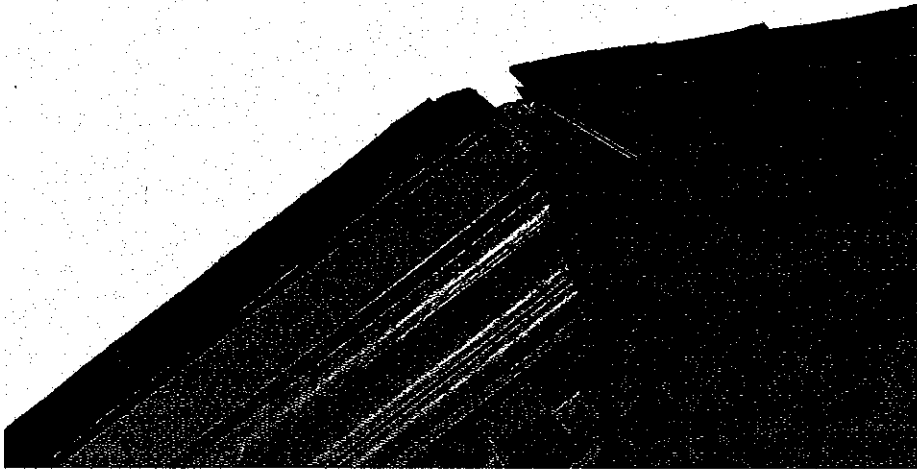
**PHOTO #13**  
Smaller of the two storm water management ponds with outfall, concrete swales, and an earthen impoundment structure



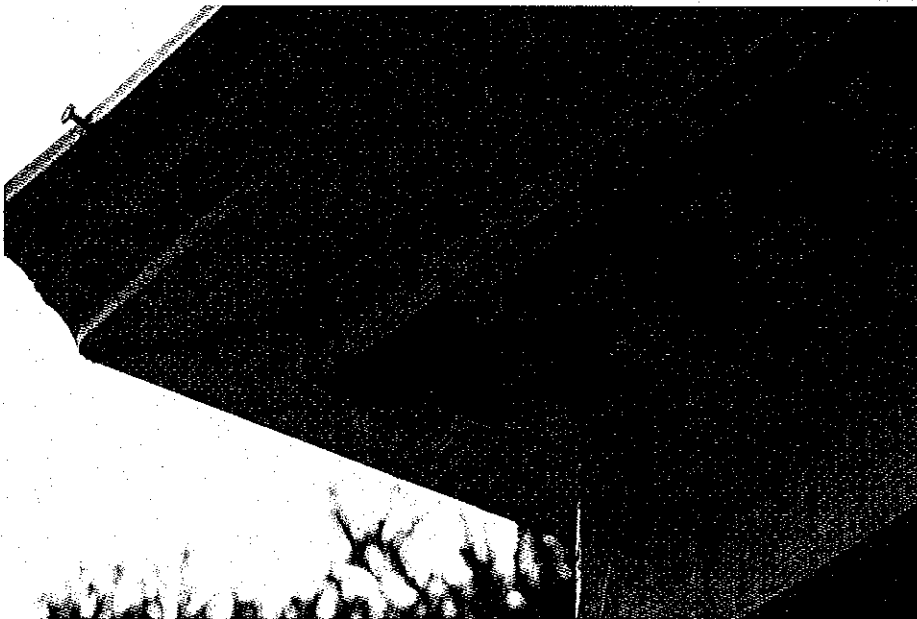
**PHOTO #14**  
Footpath corrugated metal culvert near the tot lot in deteriorating condition. Several areas along the stream will require remediation



**PHOTO #15**  
Detail of the pool building roofing. Shingles appear to be in generally good condition, but the roof requires maintenance including replacement of missing shingles



**PHOTO #16**  
Missing ridge shingle will allow water damage to occur at the wood entablature trim if the shingle is not replaced



**PHOTO #17**  
Leaking roof gutter seam has allowed water to damage the wood soffit trim. The gutter should be replaced and the trim repaired before additional damage occurs



**PHOTO #18**  
Overview of the main pool with seasonal cover to help protect the pool

