MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.

MEMBER OF community ASSOCIATIONS INSTITUTE

Condition Assessment
and
Reserve Fund Plan
2006

for

Powell's Landing

Burke, Virginia

Prepared for:
The Board of Trustees

MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.

MEMBER OF community ASSOCIATIONS INSTITUTE

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May 23, 2006

Ms. Karen Rae Frank, Finance Administrator
The Burke Centre Conservancy
6060 Burke Centre Parkway
Burke, Virginia 22015-3702

RE: **CONDITION ASSESSMENT AND RESERVE FUND PLAN 2006**
Powell's Landing
Burke, Virginia
Project No. 5983-6

Dear Ms. Frank:

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

As outlined in our proposal, the report is being submitted to you and the Board of Trustees for review and comment. A review of Section 1.0 and 2.0 will provide you with our findings and financial analyses.

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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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: Powell's Landing Cluster is comprised of 128 multi-units located on both sides of Powell's Landing Road (Route 6438) off Burke Centre Parkway in Burke, Virginia. The community was constructed circa 1980. In addition to Powell's Landing Road, which is public, there are two private drivelane loops, Reed's Landing Circle East and West and five private pipestems. The street layout includes concrete sidewalks, driveway aprons, and curbs and gutters. Site features include storm water drainage.

James G. Mason, R. S., and N. K. Mason, R. S. conducted the field evaluation for this report on May 17, 2006. The weather was clear and the temperature was approximately 65 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 has now reached its twenty-six-year benchmark in terms of replacement of major systems. We understand that the first full asphalt pavement restoration project was completed in approximately 2000 and the pavement appears to be in good condition. The west loop pavement is considerably more deteriorated than the east loop. Concrete sidewalks and curbs and gutters have received periodic replacements and appear to be in generally good condition. One drainage issue was observed, which is discussed in the Table 1 Narratives. 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 minor increase for the 2007 reserve contribution 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 a 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 7, 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, 2005, was **$82,900**. 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 **$194,110**.

2.2 Current Funding Analysis, Cash Flow Method (Table 3 & Graph): The current annual contribution to reserves is **$3,072**. At this level, the total for all annual contributions for the twenty-year study period would be **$61,440**, and the total interest income is projected to be **$49,395**. **Continued funding at this level results in the depletion of the reserve fund by 2024.**

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 $4,150** 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 **$112,454**, and the total interest income is projected to be **$68,292**. The reserve fund balance in the last year of the study (2025) is **$69,536**, or a **13%** 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 **$-0-** to a high of **$12,088** for an average annual contribution throughout the twenty-year study period of **$6,114**. The total for all annual contributions for the twenty-year study period would be **$122,289**, and the total interest income is projected to be **$58,555**. The **Fully Funded** ending balance in 2025 is **$69,634.** 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 ASPHALT PAVEMENT SUPPLEMENTAL REPORT*

Street Name	Total SY Asphalt Pavement	SY Full-Depth Repairs (A)	Linear Footage Cracks (B)
Reed's Landing Circle (West)	2,410	16	750
Reed's Landing Circle (East)	1,806	0	180
Street Sub Total	**4,216**		
Powell's Landing Road 5948-5954	438	0	40
Powell's Landing Road 6003-6005	220	0	0
Powell's Landing Road 5982-5988	410	0	100
Reed's Landing Circle 10542-10556	620	0	0
Reed's Landing Circle 10594-10600	350	0	20
Pipestem Sub Total	**2,038**		
TOTALS	**6,254**	**16**	**1,088**

* All quantities approximate (A) Quantity of deflected pavement that will require full-depth repairs near-term (B) Cracks that will require crack-filling maintenance near-term

COMPONENT DATA AND ASSET REPLACEMENT SCHEDULE
TABLE 1 EXPLANATION

This table lists the common assets included in the reserve fund plan and provides details of the replacement schedules. A narrative discussion is provided adjacent to each component. Photo references and maintenance protocol reference numbers are also provided. An explanation of each column in the table follows:

Column **1** **Component No.** is consistent throughout all tables.

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

Column **3** **Quantity** of the component studied, which may be an exact number, a rough estimate, or simply a (1) if the expenditure forecast is a lump sum allowance for replacement of an unquantified component.

Column **4** **Unit of Measurement** used to quantify the component:

SY = Square Yards
SF = Square Feet
LF = Linear Feet
EA = Each
LS = Lump Sum
PR = Pair
CY = Cubic Yards

Column **5** **Unit Cost** used to calculate the required expenditure. This unit cost includes removal of existing components and installation of new components, including materials, labor, and overhead and profit for the contractor.

Column **6** **Total Asset Base** is the total value of common assets included in the study in current dollars. In addition to capital assets, this figure includes one cycle of maintenance liability.

Column **7** **Typical Service Life (Yrs) or Cycle** is the typical life expectancy of similar components in average conditions or the length of years between replacement cycles, and does not necessarily reflect the conditions observed during the field evaluation. This number is furnished for reference and is not necessarily computed in the system.

Column **8** **1st Cycle Year** is the scheduled year of the first projected replacement or repair.

Column **9** **Percentage of Replacement** is the percentage of component value to be replaced in the first replacement cycle.

Column **10** **Cost for 1st Cycle** is the future cost (with inflation) of the replacement. It is the product of Column 6 times Column 9 in future dollars.

Column **11** **2nd Cycle Year** is the scheduled year of the second projected replacement or repair. If a second cycle is not listed, it is because the first cycle is beyond the end of the study.

Column **12** **Percentage of Replacement** is the percentage of component value to be replaced in the second replacement cycle. This can vary from the percentage of the first cycle for various reasons, such as the increased age of a component may require a larger amount of repair.

Columns **13** Through **16** **Cycles, Percentage, and Cost** repeat as itemized above. Although not shown on the tables, the cycles continue throughout the study period and beyond.

Column **18** **Discussion** is the description and observed condition of the component and the methodology employed in the decision-making process. Includes the photo reference, **(Photo #1, #2, etc.)** and Maintenance Protocol reference numbers **(7.1, 7.2 etc.)** if applicable.

Reserve Fund Plan for
6. POWELL'S LANDING CLUSTER
Burke, Virginia

COMPONENT DATA AND ASSET REPLACEMENT SCHEDULE
TABLE 1
2006 Through 2025

MASON & MASON
Reston, Virginia reserves@shentel.net 800-776-6980

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
1. ASPHALT COMPONENTS																
1.1	Asphalt Restoration Project, Streets	4,216	SY	$8.00	$33,728	18	2018	100%	$51,301	2036	100%	$96,236	2042	100%	$118,688	The asphalt pavement throughout the cluster appears to be in good condition with very few deficiencies observed. The thickness of the pavement could not be visually determined. The cluster was constructed circa 1980, and the asphalt appears to have been overlaid circa 2000. The cost is based on edgemilling and a 1-1/2" compacted overlay. A full useful service life is dependent on preventative maintenance being performed as scheduled in Items 1.3 and 1.4 below. See the Asphalt Pavement Supplemental Report, Section 7, for additional details.
1.2	Asphalt Restoration Project, Pipestems	2,038	SY	$7.50	$15,285	18	2018	100%	$23,249	2036	100%	$43,612				The five asphalt pavement pipestems serving various cluster multi-unit housing is constructed without concrete curbs and appears to be in generally good condition with a minor amount of cracking and deflection observed. The cluster was constructed circa 1980, and the asphalt appears to have been overlaid circa 2000. The thickness of the original pavement and the restoration overlay could not be visually determined. Since the pipestems do not have curbs, edgemilling is not required. The price is based on a 1-1/2" compacted overlay. A full useful service life is dependent on preventative maintenance being performed as scheduled in Items 1.3 and 1.4 below. See the Asphalt Pavement Supplemental Report, Section 7, for additional details.
1.3	Asphalt Seal Coat	6,254	SY	$1.00	$6,254	6	2007	100%	$6,476	2013	100%	$7,987	2024	100%	$11,732	The pavement, appropriately, 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 scheduled seal coating projects every six years, except in the year of the pavement restoration project.
1.4	Asphalt Full-Depth Repair & Crack-Fill Allowance	1	LS	$8,000.00	$8,000	6	2007	25%	$2,071	2013	50%	$5,109	2018	100%	$12,168	A small amount of deflected pavement (approximately 16 square yards), indicative of sub-base damage, was observed in the cluster. A small amount of random longitudinal and transverse cracking (approximately 1,088 linear feet) were observed. Repairs are essential in order to achieve the projected remaining useful service life of the pavement. Full-depth repairs and crack filling are scheduled progressively approximately every six years throughout the study period, including the year of the asphalt restoration project. See the Asphalt Pavement Supplemental Report, Section 7, for additional details.
2. CONCRETE COMPONENTS																
2.1	Concrete Sidewalks	7,548	SF	$8.00	$60,384	5	2008	3%	$1,943	2013	3%	$2,314	2018	3%	$2,755	Concrete sidewalks throughout the community are generally 4' wide. We measured approximately 1,887 linear feet of sidewalks. The thickness of the concrete could not be visually determined. Sidewalk condition ranges from new to fair. We observed approximately 576 square feet of deficient concrete sidewalks including settlement between sections causing tripping hazards and some cracked sections. Many sidewalk sections have minor settlement between sections, which will eventually cause tripping hazards. Some sidewalk sections are new. As sidewalks age, scaled surfaces, cracking, and settlement should be anticipated. 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.
2.2	Concrete Curbs & Gutters	3,392	LF	$30.00	$101,760	5	2008	2%	$2,183	2013	2%	$2,599	2018	2%	$3,096	The streets are lined with standard-profile, cast-in-place, concrete curbs. The curbs are generally in good condition with a few deficiencies (approximately 40 linear feet) observed. 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.
2.3	Concrete Driveway Aprons	3,832	SF	$10.00	$38,320	5	2008	15%	$6,164	2013	10%	$4,894	2018	10%	$5,829	Access to driveways at sidewalks is provided by double or single concrete aprons of varying sizes. This category includes only aprons that are integral with adjacent sidewalks. All other aprons serve a single home and would be the responsibility of the individual homeowner. The thickness of the concrete could not be visually determined. Most aprons appear to be in good condition with no major deterioration or cracking observed. We observed some cracked corners and settled panels, which should eventually be replaced. Some minor scaling was observed. 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.
3. SITE FEATURES																
3.1	Storm Water Drainage System Allowance	1	LS	$4,500.00	$4,500	5	2007	100%	$4,660	2012	100%	$5,550	2017	100%	$6,610	Many of the storm water drainage elements in this cluster are adjacent to VDOT streets and would not be the responsibility of the cluster. Storm water drainage is provided by concrete yard drains, curb drop inlets, and underground structures. All observable components appear to be in good condition. 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 or drainage issues such as the ponding problem at the driveway apron at Unit #10596.

CALENDAR OF EXPENDITURES
TABLE 2 EXPLANATION

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

Column **1** **Year** is the year of the projected replacement and expenditure.

Column **2** **Component No.** itemizes the components and is consistent throughout the tables.

Column **3** **Component** is a brief description of the component.

Column **4** **Present Cost** is the cost for the cycle in today's dollars.

Column **5** **Future Cost (Inflated)** is the cost for the cycle in future dollars.

Column **6** **Total Annual Expenditures** gives the total expenditures by year.

Column **7** **Action** is an area provided for the Board to make notations as to action taken on each component.

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Reserve Fund Plan for
6. POWELL'S LANDING CLUSTER
Burke, Virginia

CALENDAR OF EXPENDITURES
TABLE 2
2006 Through 2025

MASON & MASON
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YEAR	COMPONENT NO.	COMPONENT	PRESENT COST 2006	FUTURE COST (INFLATED)	TOTAL ANNUAL EXPENDITURES	ACTION
1	2	3	4	5	6	7
2006					2006	
					NO EXPENDITURES	
2007					2007	
	1.3	Asphalt Seal Coat	$6,254	$6,476	TOTAL EXPENDITURES	
	1.4	Asphalt Full-Depth Repair & Crack-Fill Allowance	$2,000	$2,071		
	3.1	Storm Water Drainage System Allowance	$4,500	$4,660		
					$13,208	
2008					2008	
	2.1	Concrete Sidewalks	$1,812	$1,943	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	$2,035	$2,183		
	2.3	Concrete Driveway Aprons	$5,748	$6,164		
					$10,289	
2009					2009	
					NO EXPENDITURES	
2010					2010	
					NO EXPENDITURES	
2011					2011	
					NO EXPENDITURES	
2012					2012	
	3.1	Storm Water Drainage System Allowance	$4,500	$5,550	TOTAL EXPENDITURES	
					$5,550	
2013					2013	
	1.3	Asphalt Seal Coat	$6,254	$7,987	TOTAL EXPENDITURES	
	1.4	Asphalt Full-Depth Repair & Crack-Fill Allowance	$4,000	$5,109		
	2.1	Concrete Sidewalks	$1,812	$2,314		
	2.2	Concrete Curbs & Gutters	$2,035	$2,599		
	2.3	Concrete Driveway Aprons	$3,832	$4,894		
					$22,903	
2014					2014	
					NO EXPENDITURES	
2015					2015	
					NO EXPENDITURES	
2016					2016	
					NO EXPENDITURES	
2017					2017	
	3.1	Storm Water Drainage System Allowance	$4,500	$6,610	TOTAL EXPENDITURES	
					$6,610	
2018					2018	
	1.1	Asphalt Restoration Project, Streets	$33,728	$51,301	TOTAL EXPENDITURES	
	1.2	Asphalt Restoration Project, Pipestems	$15,285	$23,249		
	1.4	Asphalt Full-Depth Repair & Crack-Fill Allowance	$8,000	$12,168		
	2.1	Concrete Sidewalks	$1,812	$2,755		
	2.2	Concrete Curbs & Gutters	$2,035	$3,096		
	2.3	Concrete Driveway Aprons	$3,832	$5,829		
					$98,398	
2019					2019	
					NO EXPENDITURES	
2020					2020	
					NO EXPENDITURES	

Reserve Fund Plan for
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CALENDAR OF EXPENDITURES
TABLE 2
2006 Through 2025

MASON & MASON
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YEAR	COMPONENT NO.	COMPONENT	PRESENT COST 2006	FUTURE COST (INFLATED)	TOTAL ANNUAL EXPENDITURES	ACTION
1	2	3	4	5	6	7
2021					2021	
					NO EXPENDITURES	
2022					2022	
	2.1	Concrete Sidewalks	$1,812	$3,169	TOTAL EXPENDITURES	
	3.1	Storm Water Drainage System Allowance	$4,500	$7,872		
					$11,040	
2023					2023	
	2.2	Concrete Curbs & Gutters	$2,035	$3,687	TOTAL EXPENDITURES	
	2.3	Concrete Driveway Aprons	$3,832	$6,942		
					$10,628	
2024					2024	
	1.3	Asphalt Seal Coat	$6,254	$11,732	TOTAL EXPENDITURES	
	1.4	Asphalt Full-Depth Repair & Crack-Fill Allowance	$2,000	$3,752		
					$15,484	
2025					2025	
					NO EXPENDITURES	

CURRENT FUNDING ANALYSIS CASH FLOW METHOD
TABLE 3.0 EXPLANATION

and, if applicable,

ALTERNATIVE FUNDING ANALYSIS CASH FLOW METHOD
TABLE 3.1, 3.2, 3,3 (etc.) EXPLANATION

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

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

A description of the columns in the table follows:

Column **1** **Year**

Column **2** **Total Asset Base** of all common capital assets included in the reserve fund with costs adjusted for inflation.

Column **3** **Beginning Reserve Fund Balance** is the reserve fund balance after all activity in the prior year is completed.

Column **4** **Annual Contribution,** on Table 3, is the amount contributed annually to the reserve fund as reported by the Board of Directors. On the Alternative Funding Analysis tables (3.1, 3.2, etc.), the annual contribution is projected to maintain positive balances throughout the study period.

Column **5** **Interest Income,** which is indicated in the heading of the table, is applied to the reserve fund balance and is accrued monthly throughout each year after the yearly expenditures are deducted. The interest income percentage may be varied to reflect actual experience of the community investments.

Column **6** **Capital Expenditures** are annual totals of expenditures for each year of the study period adjusted by the inflation percentage listed in the heading of the table.

Column **7** **Ending Reserve Fund Balance** is the result of the beginning reserve fund balance plus the annual contribution, plus interest income, less capital expenditures for the year.

Column **8** **Balance to Asset Base Ratio,** expressed as a percentage, is the ratio between the ending reserve fund balance and the total asset base for that year. The ratio is useful to the analysts in understanding general financial condition, but there is no standard ratio as each community's condition and complexity varies.

Reserve Fund Plan for
6. POWELL'S LANDING CLUSTER
Burke, Virginia

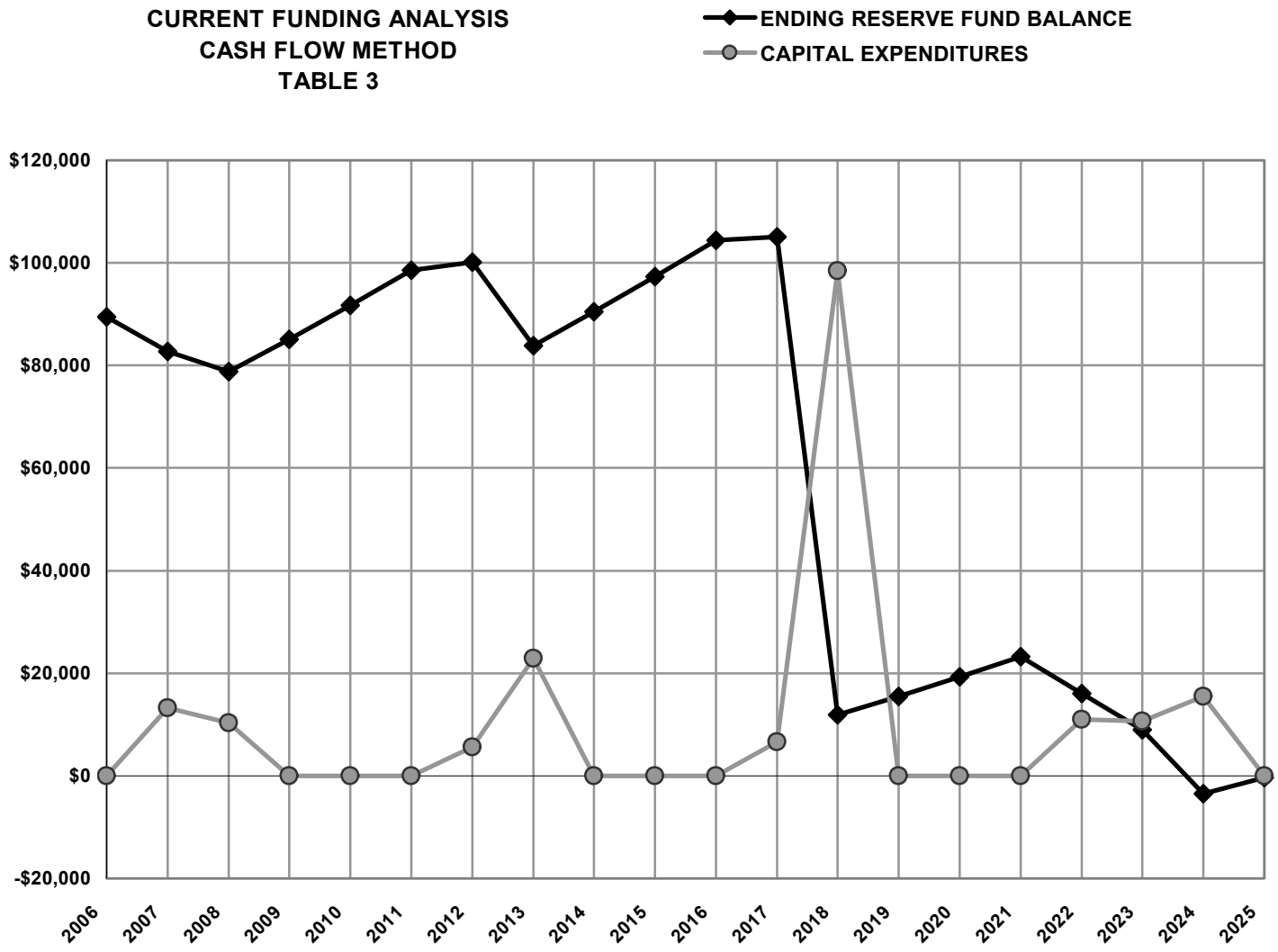
CURRENT FUNDING ANALYSIS
CASH FLOW METHOD
TABLE 3

MASON & MASON
Reston, Virginia reserves@shentel.net 800-776-6980

Beginning Reserve Fund Balance:	Annual Contribution To Reserves:	Contribution Percentage Increase:	Annual Inflation Factor:	Annual Interest Income Factor:
$82,900	$3,072	0.00%	3.50%	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
2006	$268,231	$82,900	$3,072	$3,512	$0	$89,484	33%
2007	$277,619	$89,484	$3,072	$3,425	$13,208	$82,774	30%
2008	$287,336	$82,774	$3,072	$3,215	$10,289	$78,772	27%
2009	$297,393	$78,772	$3,072	$3,277	$0	$85,121	29%
2010	$307,801	$85,121	$3,072	$3,535	$0	$91,728	30%
2011	$318,574	$91,728	$3,072	$3,805	$0	$98,604	31%
2012	$329,724	$98,604	$3,072	$3,964	$5,550	$100,090	30%
2013	$341,265	$100,090	$3,072	$3,646	$22,903	$83,905	25%
2014	$353,209	$83,905	$3,072	$3,486	$0	$90,463	26%
2015	$365,571	$90,463	$3,072	$3,753	$0	$97,288	27%
2016	$378,366	$97,288	$3,072	$4,031	$0	$104,391	28%
2017	$391,609	$104,391	$3,072	$4,176	$6,610	$105,030	27%
2018	$405,315	$105,030	$3,072	$2,201	$98,398	$11,905	3%
2019	$419,501	$11,905	$3,072	$552	$0	$15,529	4%
2020	$434,184	$15,529	$3,072	$700	$0	$19,302	4%
2021	$449,380	$19,302	$3,072	$854	$0	$23,227	5%
2022	$465,109	$23,227	$3,072	$773	$11,040	$16,032	3%
2023	$481,388	$16,032	$3,072	$489	$10,628	$8,965	2%
2024	$498,236	$8,965	$3,072	$0	$15,484	-$3,447	-1%
2025	$515,674	-$3,447	$3,072	$0	$0	-$375	0%
STUDY PERIOD TOTALS			$61,440	$49,395	$194,110		

CURRENT FUNDING ANALYSIS
CASH FLOW METHOD
TABLE 3



Reserve Fund Plan for
6. POWELL'S LANDING CLUSTER
Burke, Virginia

ALTERNATIVE FUNDING ANALYSIS
CASH FLOW METHOD
TABLE 3.1

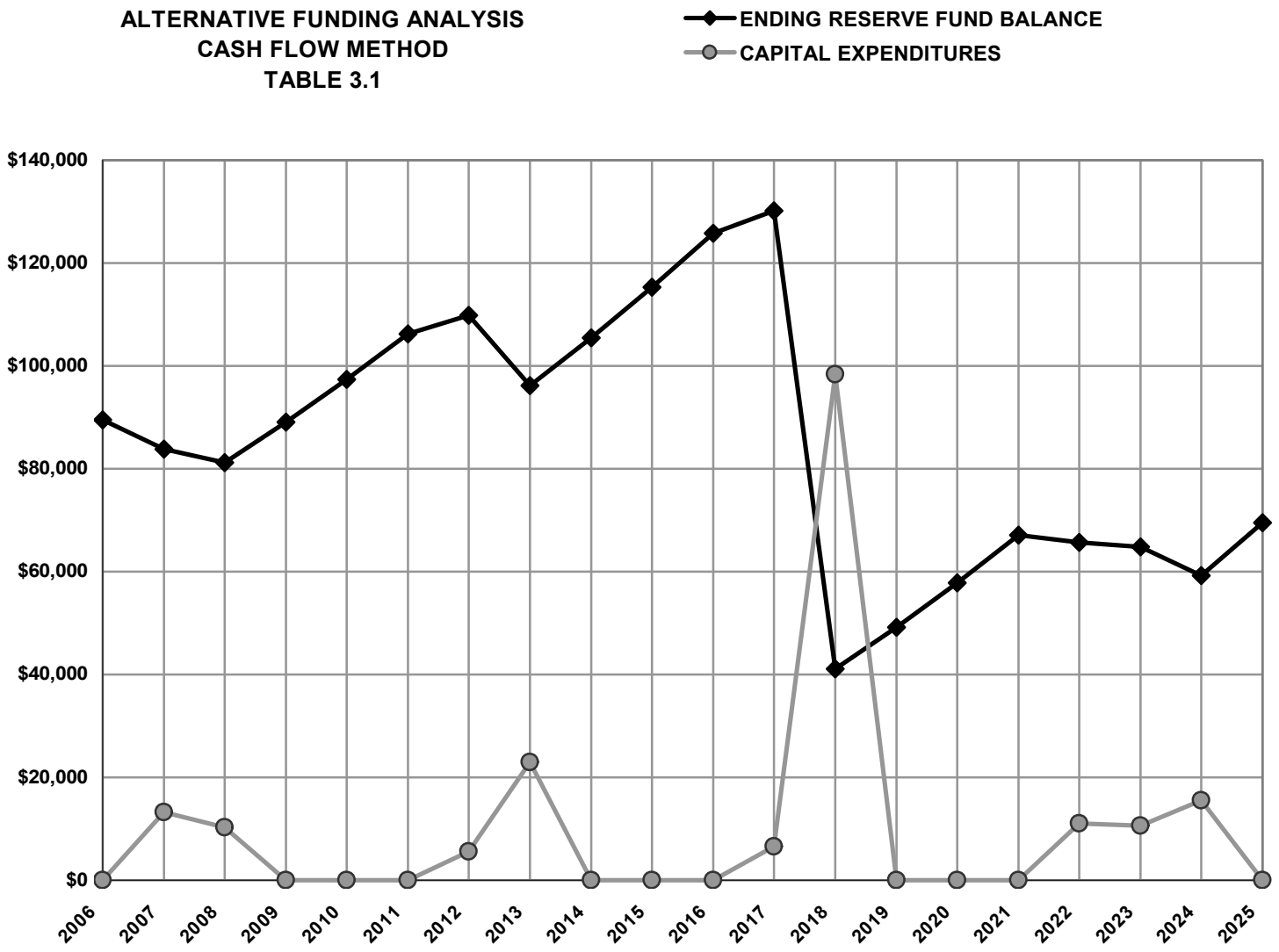
MASON & MASON
Reston, Virginia reserves@shentel.net 800-776-6980

Beginning Reserve Fund Balance:	Annual Contribution To Reserves:	Contribution Percentage Increase:	Annual Inflation Factor:	Annual Interest Income Factor:
$82,900	$3,072	3.50%	3.50%	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
2006	$268,231	$82,900	$3,072	$3,512	$0	$89,484	33%
2007	$277,619	$89,484	$4,150	$3,449	$13,208	$83,875	30%
2008	$287,336	$83,875	$4,295	$3,287	$10,289	$81,168	28%
2009	$297,393	$81,168	$4,446	$3,404	$0	$89,018	30%
2010	$307,801	$89,018	$4,601	$3,728	$0	$97,347	32%
2011	$318,574	$97,347	$4,762	$4,071	$0	$106,180	33%
2012	$329,724	$106,180	$4,929	$4,313	$5,550	$109,872	33%
2013	$341,265	$109,872	$5,101	$4,089	$22,903	$96,160	28%
2014	$353,209	$96,160	$5,280	$4,033	$0	$105,473	30%
2015	$365,571	$105,473	$5,465	$4,417	$0	$115,355	32%
2016	$378,366	$115,355	$5,656	$4,824	$0	$125,835	33%
2017	$391,609	$125,835	$5,854	$5,111	$6,610	$130,190	33%
2018	$405,315	$130,190	$6,059	$3,292	$98,398	$41,143	10%
2019	$419,501	$41,143	$6,271	$1,814	$0	$49,228	12%
2020	$434,184	$49,228	$6,490	$2,148	$0	$57,866	13%
2021	$449,380	$57,866	$6,718	$2,505	$0	$67,088	15%
2022	$465,109	$67,088	$6,953	$2,645	$11,040	$65,646	14%
2023	$481,388	$65,646	$7,196	$2,601	$10,628	$64,814	13%
2024	$498,236	$64,814	$7,448	$2,466	$15,484	$59,245	12%
2025	$515,674	$59,245	$7,709	$2,583	$0	$69,536	13%

STUDY PERIOD TOTALS	$112,454	$68,292	$194,110

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.

Reserve Fund Plan for
6. POWELL'S LANDING CLUSTER
Burke, Virginia

FUNDING ANALYSIS
COMPONENT METHOD
TABLE 4

MASON & MASON
Reston, Virginia reserves@shentel.net 800-776-6980

Beginning Reserve Fund Balance: **$82,900**

Component Number	COMPONENT	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1.1	Asphalt Restoration Project, Streets	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,783	$2,783	$2,783	$2,783	$2,783	$2,783
1.2	Asphalt Restoration Project, Pipestems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,261	$1,261	$1,261	$1,261	$1,261	$1,261
1.3	Asphalt Seal Coat	$0	$0	$898	$898	$898	$898	$898	$898	$848	$848	$848	$848	$848	$848	$848	$848	$848	$848	$848
1.4	Asphalt Full-Depth Repair & Crack-Fill Allov	$0	$0	$574	$574	$574	$574	$574	$574	$2,195	$2,195	$2,195	$2,195	$2,195	$552	$552	$552	$552	$552	$552
2.1	Concrete Sidewalks	$0	$0	$0	$318	$318	$318	$318	$318	$497	$497	$497	$497	$497	$729	$729	$729	$729	$575	$575
2.2	Concrete Curbs & Gutters	$0	$0	$0	$358	$358	$358	$358	$358	$558	$558	$558	$558	$558	$665	$665	$665	$665	$665	$792
2.3	Concrete Driveway Aprons	$0	$0	$0	$674	$674	$674	$674	$674	$1,051	$1,051	$1,051	$1,051	$1,051	$1,252	$1,252	$1,252	$1,252	$1,252	$1,491
3.1	Storm Water Drainage System Allowance	$0	$0	$764	$764	$764	$764	$764	$1,192	$1,192	$1,192	$1,192	$1,192	$1,420	$1,420	$1,420	$1,420	$1,420	$1,691	$1,691
ANNUAL COMPONENT CONTRIBUTION TOTALS		$0	$0	$2,236	$3,586	$3,586	$3,586	$3,586	$4,014	$6,342	$6,342	$6,342	$6,342	$6,570	$9,512	$9,512	$9,512	$9,512	$9,629	$9,995

COMPONENT METHOD SUMMARY	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
BEGINNING RESERVE FUND BALANCE	$82,900	$86,277	$76,297	$71,176	$77,741	$84,572	$91,682	$93,411	$77,916	$87,572	$97,622	$108,080	$112,211	$22,954	$33,610	$44,699	$56,240	$56,971	$58,272
PLUS ANNUAL COMPONENT CONTRIBUTION	$0	$0	$2,236	$3,586	$3,586	$3,586	$3,586	$4,014	$6,342	$6,342	$6,342	$6,342	$6,570	$9,512	$9,512	$9,512	$9,512	$9,629	$9,995
CAPITAL EXPENDITURES	$0	$13,208	$10,289	$0	$0	$0	$5,550	$22,903	$0	$0	$0	$6,610	$98,398	$0	$0	$0	$11,040	$10,628	$15,484
SUBTOTAL	$82,900	$73,070	$68,243	$74,762	$81,326	$88,158	$89,718	$74,522	$84,259	$93,915	$103,964	$107,813	$20,383	$32,466	$43,121	$54,211	$54,711	$55,971	$52,783
PLUS INTEREST INCOME @ 4.00%	$3,377	$3,227	$2,933	$2,978	$3,246	$3,524	$3,693	$3,394	$3,314	$3,707	$4,116	$4,398	$2,571	$1,144	$1,578	$2,030	$2,259	$2,301	$2,256
ENDING RESERVE FUND BALANCE	$86,277	$76,297	$71,176	$77,741	$84,572	$91,682	$93,411	$77,916	$87,572	$97,622	$108,080	$112,211	$22,954	$33,610	$44,699	$56,240	$56,971	$58,272	$55,039

STUDY PERIOD TOTAL CONTRIBUTIONS	$122,289	STUDY PERIOD INTEREST TOTAL	$58,555	AVERAGE ANNUAL CONTRIBUTION	$6,114	TOTAL EXPENDITURES

ASON

76-6980

2025
$2,783
$1,261
$2,131
$1,363
$575
$792
$1,491
$1,691
$12,088

2025
$55,039
$12,088
$0
$67,126
$2,507
$69,634

$194,110

FUNDING ANALYSIS
COMPONENT METHOD
TABLE 4