

REPLACEMENT RESERVE REPORT FY 2019 HAMMETT'S GLEN



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HAMMETT'S GLEN

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REPLACEMENT RESERVE REPORT

HAMMETT'S GLEN

GREER, SOUTH CAROLINA

June 7, 2018

Revised November 12, 2018



Description. Hammett's Glen is a Homeowner's Association located in Greer, South Carolina. Constructed in 1999, the community consists of 68 single-family homes. The survey examined the common elements of the property, including:

- Entrance Monuments, and concrete sidewalks.
- Storm water management and pond dredging.
- Fencing, irrigation, site lights, and landscaping.
- Asphalt pathway, and wooded bridges.

Level of Service. This study has been performed as a Level 1 Full Service Reserve Study as defined under the National Reserve Study Standards that have been adopted by the Community Associations Institute. As such, a complete inventory of components was established for the commonly owned elements of this facility based on information provided by the Community Manager or by quantities that were developed from field measurement or takeoffs from to-scale drawings as performed by the Analyst. The condition of each inventory component was established by the Analyst, based on a visual inspection or review of provided historical data with a major repair or replacement cost for each also set. The included fund status and funding plan have been derived from analysis of this inventory.

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Overview, Standard Terms, and Definitions
Video Answers to Frequently Asked Questions

To aid in the understanding of this report and its concepts and practices, on our web site, we have developed [videos](#) addressing frequently asked topics. In addition, there are posted [links](#) covering a variety of subjects under the resources page of our web site at mdareserves.com.

Purpose. The purpose of this Replacement Reserve Study is to provide {Property Name} (hereinafter called the Association) with an inventory of the common community facilities and infrastructure components that require periodic replacement. The Study includes a general view of the condition of these items and an effective financial plan to fund projected periodic replacements.

- **Inventory of Items Owned by the Association.** Section B lists the Projected Replacements of the commonly owned items that require periodic replacement using funding from Replacement Reserves. The Replacement Reserve Inventory also provides information about excluded items, which are items whose replacements are not scheduled for funding from Replacement Reserves.
- **Condition of Items Owned by the Association.** Section B includes our estimates of the normal economic life and the remaining economic life for the projected replacements. Section C provides a year-by-year listing of the projected replacements. Section D provides additional detail for items that are unique or deserving of attention because of their condition or the manner in which they have been treated in this study.
- **Financial Plan.** The Association has a fiduciary responsibility to protect the appearance, value, and safety of the property and it is therefore essential the Association have a financial plan that provides funding for the projected replacements. In conformance with American Institute of Certified Public Accountant guidelines, Section A, Replacement Reserve Analysis evaluates the current funding of Replacement Reserves as reported by the Association and recommends annual funding of Replacement Reserves by the Cash Flow Method. Section A, Replacement Reserve Analysis includes graphic and tabular presentations of the Association's current funding and the recommended funding based on the Cash Flow Method. An Executive Summary of these calculations is provided on Page A1. The alternative Component Method of funding is provided in the Appendix.

Basis. The data contained in this Replacement Reserve Study is based upon the following:

- The Request for Proposal submitted and executed by the Association.
- Miller - Dodson performed a visual evaluation on June 7, 2018 to determine a remaining useful life and replacement cost for the commonly owned elements of this facility.
- This study contains additional recommendations to address inflation for the Cash Flow Method only. For this recommendation, Miller - Dodson uses the Producers Price Index (PPI), which gauges inflation in manufacturing and construction. Please see page A5 for further details.

To-Scale Drawings. Site and building plans were not used in the development of this study. We recommend the Association assemble and maintain a library of site and building plans of the entire facility. Record drawings should be scanned into an electronic format for safe storage and ease of distribution. Upon request for a nominal fee, Miller - Dodson can provide scanning services.

Current Funding. This reserve study has been prepared for Fiscal Year 2019 covering the period from January 1, 2019 to December 31, 2019. The Replacement Reserves on deposit as of January 1, 2019 are reported to be \$62,000. The planned contribution for the fiscal year is \$12,000. This results in a Reserve Fund balance at the start of the fiscal year as follows:

| | |
|---------------------------------|----------|
| May 1, 2018 Balance | \$66,000 |
| 8 months contribution | 8,000 |
| Planned expenditures | 15,000 |
| January 1, 2019 Opening Balance | \$59,000 |

The balance and contribution figures have been supplied by the managing agent and confirmation or audit of these figures is beyond the scope of the study. For the purposes of this study, it is assumed that the annual contribution will be deposited at the end of each month.

Acknowledgement. Miller - Dodson Associates would like to acknowledge the assistance and input of the Community Manager, Ms. Mimi Abels, who provided very helpful insight into the current operations of the property. In addition, Miller – Dodson would like to thank John Stephens, Joan Leaman and Jack Gushue for their input into this study.

Analyst's Credentials. Mr. Glenn Larrimore has over twenty year's professional experience in architecture, engineering, and construction. Glenn holds a Bachelor of Science degree in Architectural Engineering and a Master of Architecture degree from the Georgia Institute of Technology. His work experience includes commercial, multi-family, mixed-use, healthcare, and master planning. In addition, he has designed over 100 private homes and renovations, including several high-end residential projects. Mr. Larrimore is currently a Reserve Analyst for Miller+Dodson Associates.

Respectfully submitted,

millerdodson
Capital Reserve Consultants

Glenn Larrimore

Glenn Larrimore, Architect
Reserve Analyst

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EXECUTIVE SUMMARY

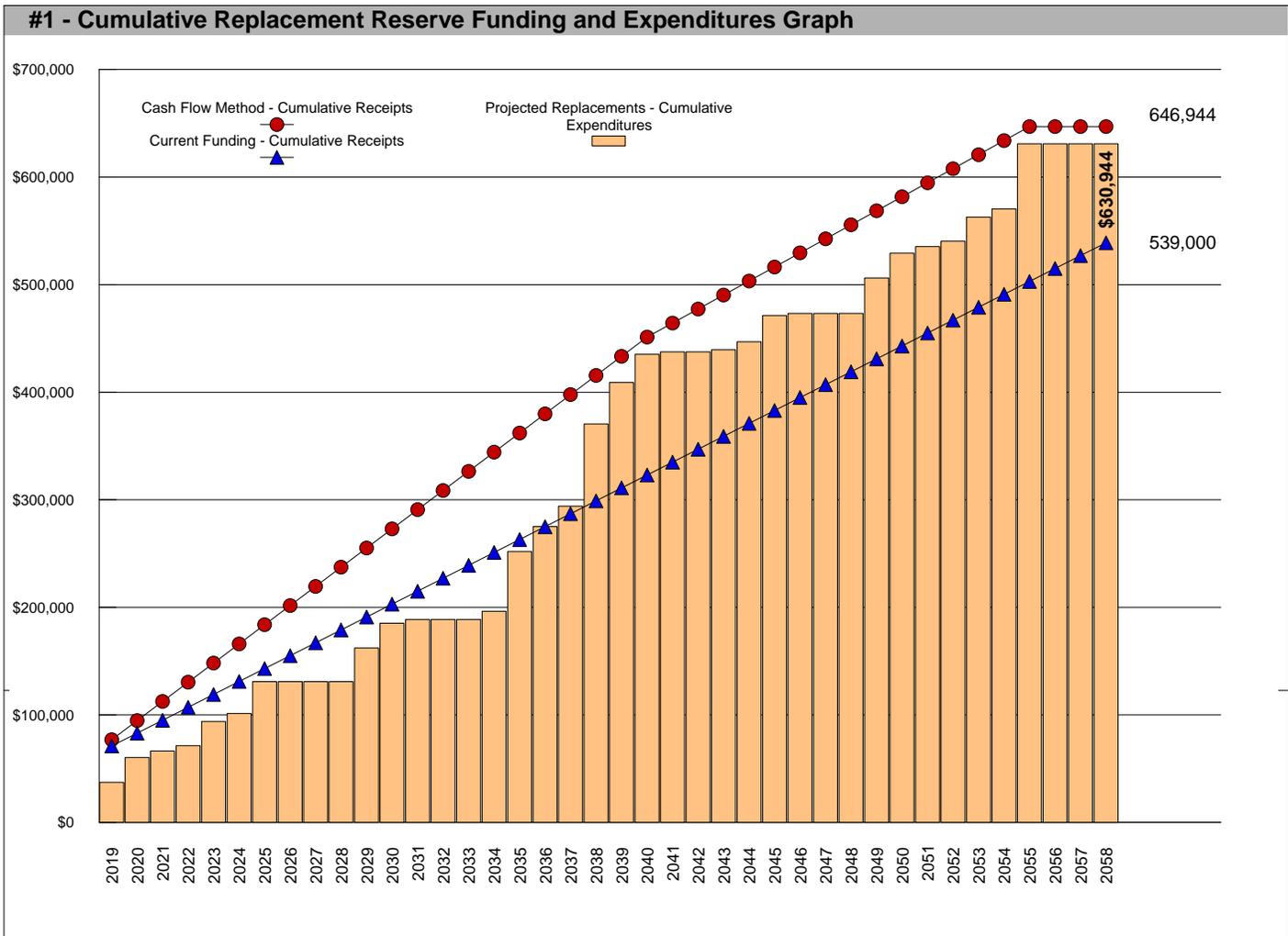
The Hammetts Glen Replacement Reserve Analysis uses the Cash Flow Method (CFM) to calculate Replacement Reserve funding for the periodic replacement of the 25 Projected Replacements identified in the Replacement Reserve Inventory.

\$17,829 **RECOMMENDED REPLACEMENT RESERVE FUNDING FOR THE STUDY YEAR, 2019**

\$21.85 Per unit (average), minimum monthly funding of Replacement Reserves

We recommend the Association adopt a Replacement Reserve Funding Plan based on the annual funding recommendation above. Inflation adjusted funding for subsequent years is shown on Page A5.

Hammetts Glen reports a Starting Balance of \$59,000 and Annual Funding totaling \$12,000. Current funding is inadequate to fund the \$630,944 of Projected Replacements scheduled in the Replacement Reserve Inventory over the 40-year Study Period. See Page A3 for a more detailed evaluation.



The Current Funding Objective as calculated by the Component Method (Fully Funded) is \$123,734 making the reserve account 47.7% funded. See the Appendix for more information on this method.

REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION

The Hammetts Glen Replacement Reserve Analysis calculations of recommended funding of Replacement Reserves by the Cash Flow Method and the evaluation of the Current Funding are based upon the same Study Year, Study Period, Beginning Balance, Replacement Reserve Inventory and Level of Service.

2019 | STUDY YEAR

The Association reports that their accounting year begins on January 1, and the Study Year, the first year evaluated by the Replacement Reserve Analysis, begins on January 1, 2019.

40 Years | STUDY PERIOD

The Replacement Reserve Analysis evaluates the funding of Replacement Reserves over a 40-year Study Period.

\$59,000 | STARTING BALANCE

The Association reports Replacement Reserves on Deposit totaling \$59,000 at the start of the Study Year.

Level One | LEVEL OF SERVICE

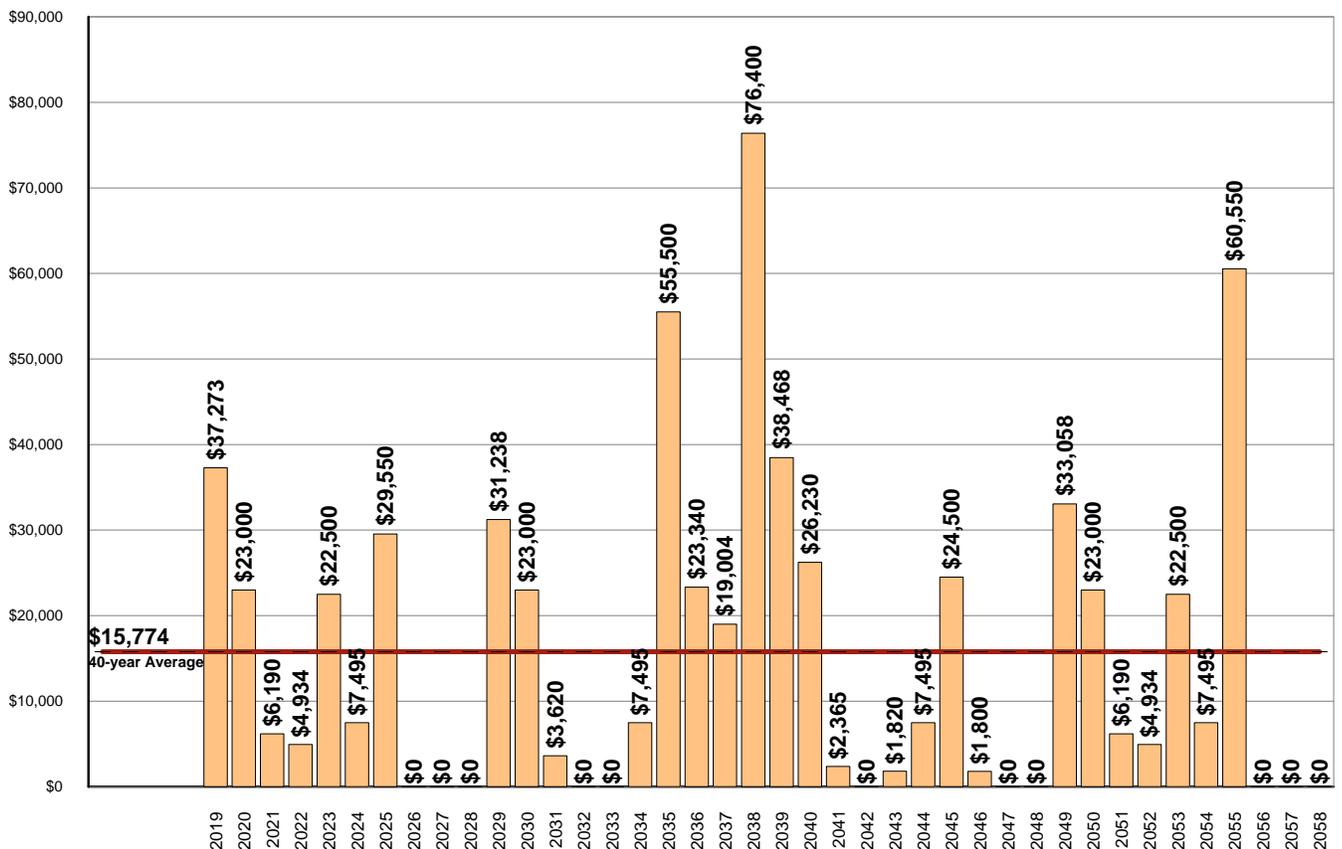
The Replacement Reserve Inventory has been developed in compliance with the National Reserve Study Standards for a Level One Study, as defined by the Community Associations Institute (CAI).

\$630,944 | REPLACEMENT RESERVE INVENTORY - PROJECTED REPLACEMENTS

The Hammetts Glen Replacement Reserve Inventory identifies 25 items that will require periodic replacement, that are to be funded from Replacement Reserves. We estimate the cost of these replacements will be \$630,944 over the 40-year Study Period. The Projected Replacements are divided into 10 major categories starting on Page B3. Pages B1-B2 provide detailed information on the Replacement Reserve Inventory.

#2 - Annual Expenditures for Projected Replacements Graph

This graph shows annual expenditures for Projected Replacements over the 40-year Study Period. The red line shows the average annual expenditure of \$15,774. Section C provides a year by year Calendar of these expenditures.



UPDATING

UPDATING OF THE FUNDING PLAN

The Association has a responsibility to review the Funding Plan annually. The review should include a comparison and evaluation of actual reserve funding with recommended levels shown on Page A4 and A5. The Projected Replacements listed on Page C2 should be compared with any replacements accomplished and funded from Replacement Reserves. Discrepancies should be evaluated and if necessary, the Reserve Study should be updated or a new study commissioned. We recommend annual increases in replacement reserve funding to account for the impact of inflation. Inflation Adjusted Funding is discussed on Page A5.

UPDATING OF THE REPLACEMENT RESERVE STUDY

At a minimum, the Replacement Reserve Study should be professionally updated every three to five years or after completion of a major replacement project. Updating should also be considered if during the annual review of the Funding Plan, discrepancies are noted between projected and actual reserve funding or replacement costs. Updating may also be necessary if there is a meaningful discrepancy between the actual inflation rate and the inflation rate used for the Inflation Adjusted Funding of Replacement Reserves on Page A5.

ANNUAL EXPENDITURES AND CURRENT FUNDING

The annual expenditures that comprise the \$630,944 of Projected Expenditures over the 40-year Study Period and the impact of the Association continuing to fund Replacement Reserves at the current level are detailed in Table 3.

| #3 - Table of Annual Expenditures and Current Funding Data - Years 1 through 40 | | | | | | | | | | |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Year | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
| Starting Balance | \$59,000 | | | | | | | | | |
| Projected Replacements | (\$37,273) | (\$23,000) | (\$6,190) | (\$4,934) | (\$22,500) | (\$7,495) | (\$29,550) | | | |
| Annual Deposit | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 |
| End of Year Balance | \$33,727 | \$22,727 | \$28,537 | \$35,603 | \$25,103 | \$29,608 | \$12,058 | \$24,058 | \$36,058 | \$48,058 |
| Cumulative Expenditures | (\$37,273) | (\$60,273) | (\$66,463) | (\$71,397) | (\$93,897) | (\$101,392) | (\$130,942) | (\$130,942) | (\$130,942) | (\$130,942) |
| Cumulative Receipts | \$71,000 | \$83,000 | \$95,000 | \$107,000 | \$119,000 | \$131,000 | \$143,000 | \$155,000 | \$167,000 | \$179,000 |
| Year | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 |
| Projected Replacements | (\$31,238) | (\$23,000) | (\$3,620) | | | (\$7,495) | (\$55,500) | (\$23,340) | (\$19,004) | (\$76,400) |
| Annual Deposit | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 |
| End of Year Balance | \$28,820 | \$17,820 | \$26,200 | \$38,200 | \$50,200 | \$54,705 | \$11,205 | (\$135) | (\$7,139) | (\$71,539) |
| Cumulative Expenditures | (\$162,180) | (\$185,180) | (\$188,800) | (\$188,800) | (\$188,800) | (\$196,295) | (\$251,795) | (\$275,135) | (\$294,139) | (\$370,539) |
| Cumulative Receipts | \$191,000 | \$203,000 | \$215,000 | \$227,000 | \$239,000 | \$251,000 | \$263,000 | \$275,000 | \$287,000 | \$299,000 |
| Year | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 |
| Projected Replacements | (\$38,468) | (\$26,230) | (\$2,365) | | (\$1,820) | (\$7,495) | (\$24,500) | (\$1,800) | | |
| Annual Deposit | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 |
| End of Year Balance | (\$98,007) | (\$112,237) | (\$102,602) | (\$90,602) | (\$80,422) | (\$75,917) | (\$88,417) | (\$78,217) | (\$66,217) | (\$54,217) |
| Cumulative Expenditures | (\$409,007) | (\$435,237) | (\$437,602) | (\$437,602) | (\$439,422) | (\$446,917) | (\$471,417) | (\$473,217) | (\$473,217) | (\$473,217) |
| Cumulative Receipts | \$311,000 | \$323,000 | \$335,000 | \$347,000 | \$359,000 | \$371,000 | \$383,000 | \$395,000 | \$407,000 | \$419,000 |
| Year | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 | 2055 | 2056 | 2057 | 2058 |
| Projected Replacements | (\$33,058) | (\$23,000) | (\$6,190) | (\$4,934) | (\$22,500) | (\$7,495) | (\$60,550) | | | |
| Annual Deposit | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 |
| End of Year Balance | (\$75,275) | (\$86,275) | (\$80,465) | (\$73,399) | (\$83,899) | (\$79,394) | (\$127,944) | (\$115,944) | (\$103,944) | (\$91,944) |
| Cumulative Expenditures | (\$506,275) | (\$529,275) | (\$535,465) | (\$540,399) | (\$562,899) | (\$570,394) | (\$630,944) | (\$630,944) | (\$630,944) | (\$630,944) |
| Cumulative Receipts | \$431,000 | \$443,000 | \$455,000 | \$467,000 | \$479,000 | \$491,000 | \$503,000 | \$515,000 | \$527,000 | \$539,000 |

EVALUATION OF CURRENT FUNDING

The evaluation of Current Funding (Starting Balance of \$59,000 & annual funding of \$12,000), is done in today's dollars with no adjustments for inflation or interest earned on Replacement Reserves. The evaluation assumes Replacement Reserves will only be used for the 25 Projected Replacements identified in the Replacement Reserve Inventory and that the Association will continue Annual Funding of \$12,000 throughout the 40-year Study Period.

Annual Funding of \$12,000 is approximately 67 percent of the \$17,829 recommended Annual Funding calculated by the Cash Flow Method for 2019, the Study Year.

Evaluation of the 25 Projected Replacements calculates an average annual expenditure over the next 40 years of \$15,774. Annual funding of \$12,000 is 76 percent of the average annual expenditure.

Our calculations identify funding shortfalls in 23 years of the Study Period with the initial shortfall in 2036. The largest shortfall, \$-127,944, occurs in 2055. All shortfalls can be seen and evaluated in Table 3 above.

In summary, Current Funding as reported by the Association and shown above, does not provide adequate funding for the \$630,944 of Projected Replacements scheduled in the Replacement Reserve Inventory over the Study Period.

CASH FLOW METHOD FUNDING

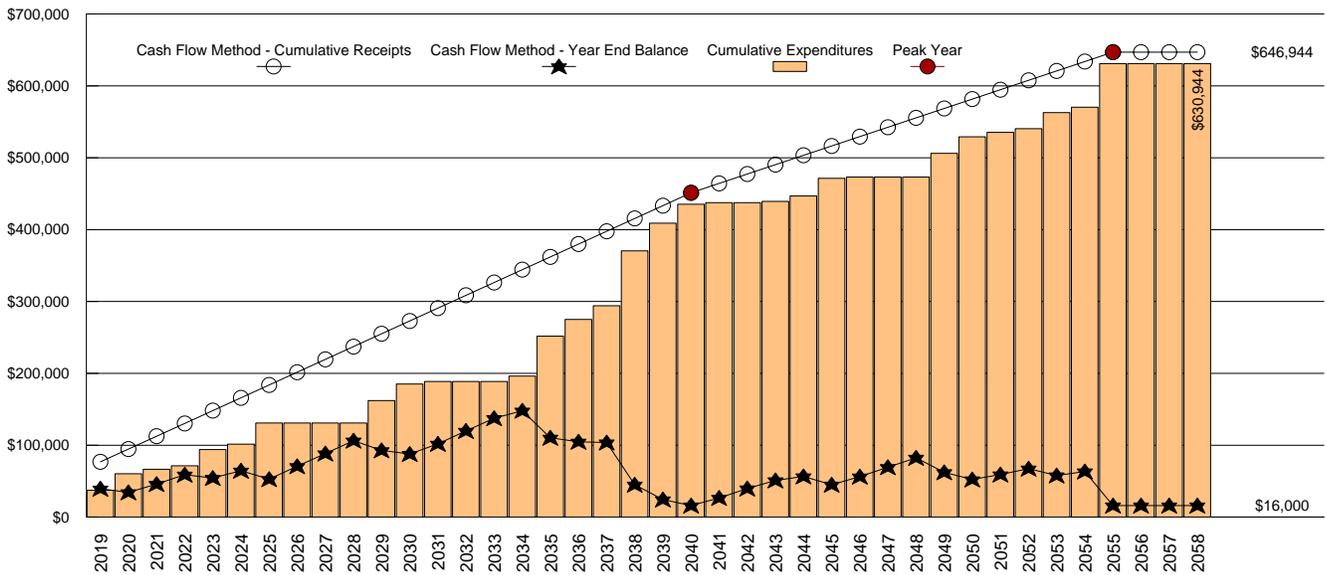
\$17,829 RECOMMENDED REPLACEMENT RESERVE FUNDING FOR 2019

\$21.85 Per unit (average), minimum monthly funding of Replacement Reserves

Recommended Replacement Reserve Funding has been calculated using the Cash Flow Method (also called the Straight Line or Threshold Method). This method calculates a constant annual funding between peaks in cumulative expenditures, while maintaining a Minimum Balance (threshold) in the Peak Years.

- **Peak Years.** The First Peak Year occurs in 2040 with Replacement Reserves on Deposit dropping to the Minimum Balance after the completion of \$435,237 of replacements from 2019 to 2040. Recommended funding declines from \$17,829 in 2040 to \$13,047 in 2041. Peak Years are identified in Chart 4 and Table 5.
- **Minimum Balance.** The calculations assume a Minimum Balance of \$16,000 in Replacement Reserves. This is approx. 12 months of average expenditures based on the \$15,774, 40-year average annual expenditure.
- **Cash Flow Method Study Period.** Cash Flow Method calculates funding for \$630,944 of expenditures over the 40-year Study Period. It does not include funding for any projects beyond 2058 and in 2058, the end of year balance will always be the Minimum Balance.

#4 - Cash Flow Method - Graph of Cumulative Receipts and Expenditures - Years 1 through 40



#5 - Cash Flow Method - Table of Receipts & Expenditures - Years 1 through 40

| Year | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|-------------------------|-------------|-----------------|-------------|-------------|-------------|-------------|-----------------|-------------|-------------|-------------|
| Starting Balance | \$59,000 | | | | | | | | | |
| Projected Replacements | (\$37,273) | (\$23,000) | (\$6,190) | (\$4,934) | (\$22,500) | (\$7,495) | (\$29,550) | | | |
| Annual Deposit | \$17,829 | \$17,829 | \$17,829 | \$17,829 | \$17,829 | \$17,829 | \$17,829 | \$17,829 | \$17,829 | \$17,829 |
| End of Year Balance | \$39,556 | \$34,385 | \$46,024 | \$58,919 | \$54,248 | \$64,582 | \$52,861 | \$70,690 | \$88,519 | \$106,348 |
| Cumulative Expenditures | \$37,273 | \$60,273 | \$66,463 | \$71,397 | \$93,897 | \$101,392 | \$130,942 | \$130,942 | \$130,942 | \$130,942 |
| Cumulative Receipts | \$76,829 | \$94,658 | \$112,487 | \$130,316 | \$148,145 | \$165,974 | \$183,803 | \$201,632 | \$219,461 | \$237,290 |
| Year | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 |
| Projected Replacements | (\$31,238) | (\$23,000) | (\$3,620) | | | (\$7,495) | (\$55,500) | (\$23,340) | (\$19,004) | (\$76,400) |
| Annual Deposit | \$17,829 | \$17,829 | \$17,829 | \$17,829 | \$17,829 | \$17,829 | \$17,829 | \$17,829 | \$17,829 | \$17,829 |
| End of Year Balance | \$92,939 | \$87,767 | \$101,976 | \$119,805 | \$137,634 | \$147,968 | \$110,297 | \$104,786 | \$103,611 | \$45,400 |
| Cumulative Expenditures | (\$162,180) | (\$185,180) | (\$188,800) | (\$188,800) | (\$188,800) | (\$196,295) | (\$251,795) | (\$275,135) | (\$294,139) | (\$370,539) |
| Cumulative Receipts | \$255,119 | \$272,947 | \$290,776 | \$308,605 | \$326,434 | \$344,263 | \$362,092 | \$379,921 | \$397,750 | \$415,579 |
| Year | 2039 | 1st Peak - 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 |
| Projected Replacements | (\$38,468) | (\$26,230) | (\$2,365) | | (\$1,820) | (\$7,495) | (\$24,500) | (\$1,800) | | |
| Annual Deposit | \$17,829 | \$17,829 | \$13,047 | \$13,047 | \$13,047 | \$13,047 | \$13,047 | \$13,047 | \$13,047 | \$13,047 |
| End of Year Balance | \$24,401 | \$16,000 | \$26,682 | \$39,729 | \$50,956 | \$56,509 | \$45,056 | | | |
| Cumulative Expenditures | (\$409,007) | (\$435,237) | (\$437,602) | (\$437,602) | (\$439,422) | (\$446,917) | (\$471,417) | (\$473,217) | (\$473,217) | (\$473,217) |
| Cumulative Receipts | \$433,408 | \$451,237 | \$464,284 | \$477,331 | \$490,378 | \$503,426 | \$516,473 | \$529,520 | \$542,567 | \$555,614 |
| Year | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 | 2nd Peak - 2055 | 2056 | 2057 | 2058 |
| Projected Replacements | (\$33,058) | (\$23,000) | (\$6,190) | (\$4,934) | (\$22,500) | (\$7,495) | (\$60,550) | | | |
| Annual Deposit | \$13,047 | \$13,047 | \$13,047 | \$13,047 | \$13,047 | \$13,047 | \$13,047 | \$16,000 | \$16,000 | \$16,000 |
| End of Year Balance | \$62,386 | \$52,433 | \$59,290 | \$67,404 | \$57,951 | \$63,503 | \$16,000 | \$16,000 | \$16,000 | \$16,000 |
| Cumulative Expenditures | (\$506,275) | (\$529,275) | (\$535,465) | (\$540,399) | (\$562,899) | (\$570,394) | (\$630,944) | (\$630,944) | (\$630,944) | (\$630,944) |
| Cumulative Receipts | \$568,661 | \$581,708 | \$594,755 | \$607,803 | \$620,850 | \$633,897 | \$646,944 | \$646,944 | \$646,944 | \$646,944 |

INFLATION ADJUSTED FUNDING

The Cash Flow Method calculations on Page A4 have been done in today's dollars with no adjustment for inflation. At Miller + Dodson, we believe that long-term inflation forecasting is effective at demonstrating the power of compounding, not at calculating appropriate funding levels for Replacement Reserves. We have developed this proprietary model to estimate the short-term impact of inflation on Replacement Reserve funding.

\$17,829 2019 - CASH FLOW METHOD RECOMMENDED FUNDING

The 2019 Study Year calculations have been made using current replacement costs (see Page B2), modified by the Analyst for any project specific conditions.

\$18,265 2020 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2020 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$39,556 on January 1, 2020.
- All 2019 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than \$37,273.
- Construction Cost Inflation of 2.30 percent in 2019.

The \$18,265 inflation adjusted funding in 2020 is a 2.44 percent increase over the non-inflation adjusted 2020 funding of \$17,829.

\$18,706 2021 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2021 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$34,292 on January 1, 2021.
- All 2020 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than \$23,529.
- Construction Cost Inflation of 2.30 percent in 2020.

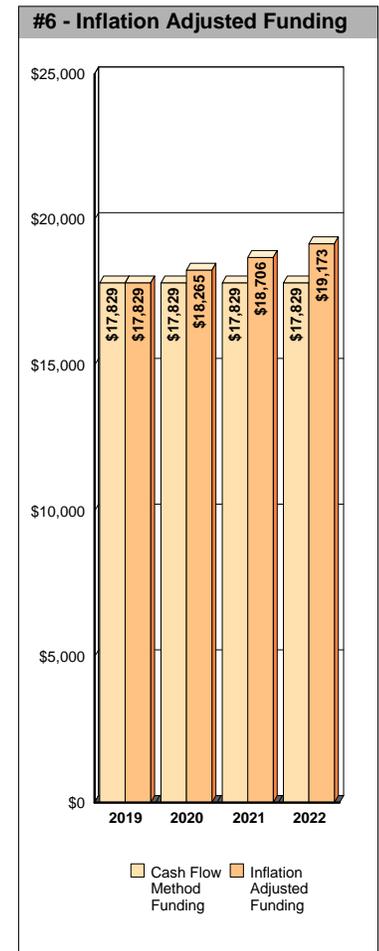
The \$18,706 inflation adjusted funding in 2021 is a 4.92 percent increase over the non-inflation adjusted 2021 funding of \$17,829.

\$19,173 2022 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2022 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$46,520 on January 1, 2022.
- All 2021 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than \$6,478.
- Construction Cost Inflation of 2.30 percent in 2021.

The \$19,173 inflation adjusted funding in 2022 is a 7.54 percent increase over the non-inflation adjusted funding of \$17,829.



YEAR FIVE & BEYOND

The inflation adjusted funding calculations outlined above are not intended to be a substitute for periodic evaluation of common elements by an experienced Reserve Analyst. Industry Standards, lender requirements, and many state and local statutes require a Replacement Reserve Study be professionally updated every 3 to 5 years.

INFLATION ADJUSTMENT

Prior to approving a budget based upon the 2020, 2021 and 2022 inflation adjusted funding calculations above, the 2.30 percent base rate of inflation used in our calculations should be compared to rates published by the Bureau of Labor Statistics. If there is a significant discrepancy (over 1 percent), contact Miller Dodson + Associates prior to using the Inflation Adjusted Funding.

INTEREST ON RESERVES

The recommended funding calculations do not account for interest earned on Replacement Reserves.

In 2019, based on a 1.00 percent interest rate, we estimate the Association may earn \$493 on an average balance of \$49,278, \$369 on an average balance of \$36,924 in 2020, and \$404 on \$40,406 in 2021. The Association may elect to attribute 100 percent of the earned interest to Reserves, resulting in a reduction in the 2019 funding from \$17,829 to \$17,336 (a 2.76 percent reduction), \$18,265 to \$17,896 in 2020 (a 2.02 percent reduction), and \$18,706 to \$18,302 in 2021 (a 2.16 percent reduction).

REPLACEMENT RESERVE STUDY - SUPPLEMENTAL COMMENTS

- Hammetts Glen has 68 units. The type of property is a Homeowners' Association.
- The Cash Flow Method calculates the minimum annual funding necessary to prevent Replacement Reserves from dropping below the Minimum Balance. Failure to fund at least the recommended levels may result in funding not being available for the Projected Replacements listed in the Replacement Reserve Inventory.
- The accuracy of the Replacement Reserve Analysis is dependent upon expenditures from Replacement Reserves being made ONLY for the 25 Projected Replacements specifically listed in the Replacement Reserve Inventory. The inclusion/exclusion of items from the Replacement Reserve Inventory is discussed on Page B1.

REPLACEMENT RESERVE INVENTORY GENERAL INFORMATION

Hammetts Glen - Replacement Reserve Inventory identifies 82 items. Two types of items are identified, Projected Replacements and Excluded Items:

- **PROJECTED REPLACEMENTS.** 25 of the items are Projected Replacements and the periodic replacements of these items are scheduled for funding from Replacement Reserves. The Projected Replacements have an estimated one-time replacement cost of \$247,512. Replacements totaling \$630,944 are scheduled in the Replacement Reserve Inventory over the 40-year Study Period.

Projected Replacements are the replacement of commonly-owned physical assets that require periodic replacement and whose replacement is to be funded from Replacement Reserves.

- **EXCLUDED ITEMS.** 57 of the items are Excluded Items, and expenditures for these items are NOT scheduled for funding from Replacement Reserves. The accuracy of the calculations made in the Replacement Reserve Analysis is dependent on expenditures NOT being made for Excluded Items. The Excluded Items are listed in the Replacement Reserve Inventory to identify specific items and categories of items that are not to be funded from Replacement Reserves. There are multiple categories of items that are typically excluded from funding by Replacement Reserves, including but not limited to:

Tax Code. The United States Tax Code grants very favorable tax status to Replacement Reserves, conditioned on expenditures being made within certain guidelines. These guidelines typically exclude maintenance activities, minor repairs and capital improvements.

Value. Items with a replacement cost of less than \$1,000 and/or a normal economic life of less than 3 years are typically excluded from funding from Replacement Reserves. This exclusion should reflect Association policy on the administration of Replacement Reserves. If the Association has selected an alternative level, it will be noted in the Replacement Reserve Inventory - General Comments on Page B2.

Long-lived Items. Items that when properly maintained, can be assumed to have a life equal to the property as a whole, are typically excluded from the Replacement Reserve Inventory.

Unit improvements. Items owned by a single unit and where the items serve a single unit are generally assumed to be the responsibility of that unit, not the Association.

Other non-common improvements. Items owned by the local government, public and private utility companies, the United States Postal Service, Master Associations, state and local highway authorities, etc., may be installed on property that is owned by the Association. These types of items are generally not the responsibility of the Association and are excluded from the Replacement Reserve Inventory.

The rationale for the exclusion of an item from funding by Replacement Reserves is discussed in more detail in the 'Comments' sections of the Section B - Replacement Reserve Inventory.

- **CATEGORIES.** The 82 items included in the Hammetts Glen Replacement Reserve Inventory are divided into 10 major categories. Each category is printed on a separate page, Pages B3 to B11.
- **LEVEL OF SERVICE.** This Replacement Reserve Inventory has been developed in compliance with the standards established for a Level One Study - Full Service, as defined by the National Reserve Study Standards, established in 1998 by Community Associations Institute, which states:

A Level I - Full Service Reserve Study includes the computation of complete component inventory information regarding commonly owned components provided by the Association, quantities derived from field measurements and/or quantity takeoffs from to-scale engineering drawings that may be made available. The condition of all components is ascertained from a visual inspection of each component by the analyst. The remaining economic life and the value of the components are provided based on these observations and the funding status and funding plan are then derived from analysis of this data.

REPLACEMENT RESERVE INVENTORY - GENERAL INFORMATION (cont'd)

- **INVENTORY DATA.** Each of the 25 Projected Replacements listed in the Replacement Reserve Inventory includes the following data:

Item Number. The Item Number is assigned sequentially and is intended for identification purposes only.

Item Description. We have identified each item included in the Inventory. Additional information may be included in the Comments section at the bottom of each page of the Inventory.

Units. We have used standard abbreviations to identify the number of units including SF-square feet, LF-lineal feet, SY-square yard, LS-lump sum, EA-each, and PR-pair. Non-standard abbreviations are noted in the Comments section at the bottom of the page.

Number of Units. The methods used to develop the quantities are discussed in "Level of Service" above.

Unit Replacement Cost. We use four sources to develop the unit cost data shown in the Inventory; actual replacement cost data provided by the client, information provided by local contractors and suppliers, industry standard estimating manuals, and a cost database we have developed based upon our detailed interviews with contractors and service providers who are specialists in their respective lines of work.

Normal Economic Life (Yrs). The number of years that a new and properly installed item should be expected to remain in service.

Remaining Economic Life (Yrs). The estimated number of years before an item will need to be replaced. In "normal" conditions, this could be calculated by subtracting the age of the item from the Normal Economic Life of the item, but only rarely do physical assets age "normally". Some items may have longer or shorter lives depending on many factors such as environment, initial quality of the item, maintenance, etc.

Total Replacement Cost. This is calculated by multiplying the Unit Replacement Cost by the Number of Units.

Each of the 57 Excluded Items includes the Item Description, Units, and Number of Units. Many of the Excluded Items are listed as a 'Lump Sum' with a quantity of 1. For the Excluded Items, this indicates that all of the items identified by the 'Item Description' are excluded from funding by Replacement Reserves.

- **REVIEW OF EXPENDITURES.** This Replacement Reserve Study should be reviewed by an accounting professional representing the Association prior to implementation.
- **PARTIAL FUNDING.** Items may have been included in the Replacement Reserve Inventory at less than 100 percent of their full quantity and/or replacement cost. This is done on items that will never be replaced in their entirety, but which may require periodic replacements over an extended period of time. The assumptions that provide the basis for any partial funding are noted in the Comments section.
- **REMAINING ECONOMIC LIFE GREATER THAN 40 YEARS.** The calculations do not include funding for initial replacements beyond 40 years. These replacements are included in this Study for tracking and evaluation. They should be included for funding in future Studies, when they enter the 40-year window.

| SITE COMPONENTS PROJECTED REPLACEMENTS | | | | | | | | |
|--|-------------------------------------|------|-----------------|----------------------------|----------------------------|-------------------------------|-----------------------|--|
| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST (\$) | NORMAL ECONOMIC LIFE (YRS) | REMAINING ECONOMIC LIFE (YRS) | REPLACEMENT COST (\$) | |
| 1 | Asphalt path, overlay | sf | 6,700 | \$4.65 | 20 | none | \$31,155 | |
| 2 | Asphalt path, seal coat | sf | 6,700 | \$0.45 | 5 | 5 | \$3,015 | |
| 3 | Concrete flatwork (3%) | sf | 200 | \$9.10 | 6 | none | \$1,820 | |
| 4 | Fence, metal, pond perimeter | ft | 550 | \$43.50 | 20 | 10 | \$23,925 | |
| 5 | Fence gate, pond | ea | 1 | \$480.00 | 10 | 5 | \$480 | |
| 6 | Entrance monument, (10% repointing) | sf | 388 | \$8.50 | 10 | none | \$3,298 | |
| 7 | Sign & post, street | ea | 4 | \$285.00 | 30 | 22 | \$1,140 | |
| 8 | Sign & post, other, stop sign | ea | 5 | \$245.00 | 30 | 22 | \$1,225 | |
| 9 | Irrigation, (allowance) | ls | 1 | \$3,000.00 | 10 | 5 | \$3,000 | |
| 10 | Landscape lighting | ea | 34 | \$95.00 | 15 | 6 | \$3,230 | |
| 11 | Landscaping (allowance) | ls | 1 | \$23,000.00 | 5 | 1 | \$23,000 | |
| 12 | Storm water pond dredging | ls | 1 | \$30,000.00 | 20 | 16 | \$30,000 | |
| 13 | Pond aeration (allowance) | ls | 1 | \$1,000.00 | 5 | none | \$1,000 | |
| 14 | Storm water management (allowance) | ls | 1 | \$1,500.00 | 10 | 6 | \$1,500 | |
| 15 | Entrance monument, wood signage | ls | 1 | \$1,000.00 | 20 | 16 | \$1,000 | |
| SITE COMPONENTS - Replacement Costs - Subtotal | | | | | | | \$128,788 | |

| SITE COMPONENTS COMMENTS | |
|-----------------------------|---|
| ● | Summers Duffie of Land Power LLC., currently maintains the storm water pond. Mr. Duffie was consulted on June 28th concerning the history, and present condition of the pond. The results of the consultation and future maintenance of the pond are presented above. |
| ● | An allowance for storm water management has been added to the study at 5,000 per 10 years. |
| ● | 11.12.2018 - Increase the allowance for landscaping and stormwater management. |

| SITE COMPONENTS PROJECTED REPLACEMENTS | | | | | | | |
|--|------------------------------------|------|-----------------|----------------------------|----------------------------|-------------------------------|-----------------------|
| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST (\$) | NORMAL ECONOMIC LIFE (YRS) | REMAINING ECONOMIC LIFE (YRS) | REPLACEMENT COST (\$) |
| 16 | B1-Wood ped. bridge, PTL structure | sf | 350 | \$49.00 | 30 | 17 | \$17,150 |
| 17 | B1-Wood PTL decking | sf | 350 | \$11.00 | 15 | 2 | \$3,850 |
| 18 | B1-Wood PTL railing | ft | 90 | \$26.00 | 15 | 2 | \$2,340 |
| 19 | B2-Wood ped. bridge, PTL structure | sf | 250 | \$49.00 | 30 | 18 | \$12,250 |
| 20 | B2-Wood PTL decking | sf | 250 | \$11.00 | 15 | 3 | \$2,750 |
| 21 | B2-Wood PTL railing | ft | 84 | \$26.00 | 15 | 3 | \$2,184 |
| 22 | B3-Wood ped. bridge, PTL structure | sf | 1,100 | \$49.00 | 30 | 19 | \$53,900 |
| 23 | B3-Wood PTL decking | sf | 1,100 | \$11.00 | 15 | 4 | \$12,100 |
| 24 | B3-Wood PTL railing | ft | 400 | \$26.00 | 15 | 4 | \$10,400 |
| 25 | Fence, timber | ft | 90 | \$20.00 | 15 | 12 | \$1,800 |
| SITE COMPONENTS - Replacement Costs - Subtotal | | | | | | | \$118,724 |

| SITE COMPONENTS COMMENTS |
|--|
| <ul style="list-style-type: none"> ● B1 = Bridge #1 ● B2 = Bridge #2 ● B3 = Bridge #3 |

VALUATION EXCLUSIONS

EXCLUDED ITEMS

| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST (\$) | NORMAL ECONOMIC LIFE (YRS) | REMAINING ECONOMIC LIFE (YRS) | REPLACEMENT COST (\$) |
|--------|---------------------------------|------|-----------------|----------------------------|----------------------------|-------------------------------|-----------------------|
| | Mailboxes | ls | 1 | | | | EXCLUDED |
| | Asphalt roads | ls | 1 | | | | EXCLUDED |
| | Bollard/access control devices | ls | 1 | | | | EXCLUDED |
| | Curb and gutter | ls | 1 | | | | EXCLUDED |
| | Miscellaneous signage | ls | 1 | | | | EXCLUDED |
| | Window unit | ls | 1 | | | | EXCLUDED |
| | Property identification signage | ls | 1 | | | | EXCLUDED |

VALUATION EXCLUSIONS

COMMENTS

- Valuation Exclusions. For ease of administration of the Replacement Reserves and to reflect accurately how Replacement Reserves are administered, items with a dollar value less than \$1,000.00 have not been scheduled for funding from Replacement Reserves. Examples of items excluded from funding by Replacement Reserves by this standard are listed above.

- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

LONG-LIFE EXCLUSIONS

EXCLUDED ITEMS

| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST (\$) | NORMAL ECONOMIC LIFE (YRS) | REMAINING ECONOMIC LIFE (YRS) | REPLACEMENT COST (\$) |
|--------|------------------------------------|------|-----------------|----------------------------|----------------------------|-------------------------------|-----------------------|
| | Masonry features | ls | 1 | | | | EXCLUDED |
| | Exterior brick veneer | ls | 1 | | | | EXCLUDED |
| | Exterior stone veneer | ls | 1 | | | | EXCLUDED |
| | Building foundation(s) | ls | 1 | | | | EXCLUDED |
| | Concrete floor slabs (interior) | ls | 1 | | | | EXCLUDED |
| | Wall, floor, & roof structure | ls | 1 | | | | EXCLUDED |
| | Fire protection/security systems | ls | 1 | | | | EXCLUDED |
| | Common element electrical services | ls | 1 | | | | EXCLUDED |

LONG-LIFE EXCLUSIONS

COMMENTS

- Long Life Exclusions. Components that when properly maintained, can be assumed to have a life equal to the property as a whole, are normally excluded from the Replacement Reserve Inventory. Examples of items excluded from funding by Replacement Reserves by this standard are listed above.
- Exterior masonry is generally assumed to have an unlimited economic life but periodic repointing is required and we have included this for funding in the Replacement Reserve Inventory.
- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

UNIT IMPROVEMENTS EXCLUSIONS

EXCLUDED ITEMS

| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST (\$) | NORMAL ECONOMIC LIFE (YRS) | REMAINING ECONOMIC LIFE (YRS) | REPLACEMENT COST (\$) |
|--------|---------------------------------------|------|-----------------|----------------------------|----------------------------|-------------------------------|-----------------------|
| | Domestic water pipes serving one unit | ls | 1 | | | | EXCLUDED |
| | Sanitary sewers serving one unit | ls | 1 | | | | EXCLUDED |
| | Electrical wiring serving one unit | ls | 1 | | | | EXCLUDED |
| | Cable TV service serving one unit | ls | 1 | | | | EXCLUDED |
| | Telephone service serving one unit | ls | 1 | | | | EXCLUDED |
| | Gas service serving one unit | ls | 1 | | | | EXCLUDED |
| | Unit exterior | ls | 1 | | | | EXCLUDED |
| | Driveway on an individual lot | ls | 1 | | | | EXCLUDED |
| | Stairs on an individual lot | ls | 1 | | | | EXCLUDED |
| | Curb & gutter on an individual lot | ls | 1 | | | | EXCLUDED |
| | Fence on an individual lot | ls | 1 | | | | EXCLUDED |
| | Unit windows | ls | 1 | | | | EXCLUDED |
| | Unit doors | ls | 1 | | | | EXCLUDED |
| | Unit skylights | ls | 1 | | | | EXCLUDED |
| | Unit deck, patio, and/or balcony | ls | 1 | | | | EXCLUDED |
| | Unit mailbox | ls | 1 | | | | EXCLUDED |
| | Unit interior | ls | 1 | | | | EXCLUDED |
| | Unit HVAC system | ls | 1 | | | | EXCLUDED |

UNIT IMPROVEMENTS EXCLUSIONS

COMMENTS

- Unit improvement Exclusions. We understand that the elements of the project that relate to a single unit are the responsibility of that unit owner. Examples of items excluded from funding by Replacement Reserves by this standard are listed above.

- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

UTILITY EXCLUSIONS

EXCLUDED ITEMS

| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST (\$) | NORMAL ECONOMIC LIFE (YRS) | REMAINING ECONOMIC LIFE (YRS) | REPLACEMENT COST (\$) |
|--------|---------------------------------|------|-----------------|----------------------------|----------------------------|-------------------------------|-----------------------|
| | Primary electric feeds | ls | 1 | | | | EXCLUDED |
| | Electric transformers | ls | 1 | | | | EXCLUDED |
| | Cable TV systems and structures | ls | 1 | | | | EXCLUDED |
| | Telephone cables and structures | ls | 1 | | | | EXCLUDED |
| | Site lighting | ls | 1 | | | | EXCLUDED |
| | Gas mains and meters | ls | 1 | | | | EXCLUDED |
| | Water mains and meters | ls | 1 | | | | EXCLUDED |
| | Sanitary sewers | ls | 1 | | | | EXCLUDED |

UTILITY EXCLUSIONS

COMMENTS

- Utility Exclusions. Many improvements owned by utility companies are on property owned by the Association. We have assumed that repair, maintenance, and replacements of these components will be done at the expense of the appropriate utility company. Examples of items excluded from funding Replacement Reserves by this standard are listed above.

- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

MAINTENANCE AND REPAIR EXCLUSIONS

EXCLUDED ITEMS

| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST (\$) | NORMAL ECONOMIC LIFE (YRS) | REMAINING ECONOMIC LIFE (YRS) | REPLACEMENT COST (\$) |
|--------|-----------------------------------|------|-----------------|----------------------------|----------------------------|-------------------------------|-----------------------|
| | Cleaning of asphalt pavement | ls | 1 | | | | EXCLUDED |
| | Crack sealing of asphalt pavement | ls | 1 | | | | EXCLUDED |
| | Painting of curbs | ls | 1 | | | | EXCLUDED |
| | Striping of parking spaces | ls | 1 | | | | EXCLUDED |
| | Exterior painting | ls | 1 | | | | EXCLUDED |
| | Interior painting | ls | 1 | | | | EXCLUDED |
| | Janitorial service | ls | 1 | | | | EXCLUDED |
| | Repair services | ls | 1 | | | | EXCLUDED |
| | Partial replacements | ls | 1 | | | | EXCLUDED |
| | Capital improvements | ls | 1 | | | | EXCLUDED |

MAINTENANCE AND REPAIR EXCLUSIONS

COMMENTS

- Maintenance activities, one-time-only repairs, and capital improvements. These activities are NOT appropriately funded from Replacement Reserves. The inclusion of such component in the Replacement Reserve Inventory could jeopardize the special tax status of ALL Replacement Reserves, exposing the Association to significant tax liabilities. We recommend that the Board of Directors discuss these exclusions and Revenue Ruling 75-370 with a Certified Public Accountant.
- Examples of items excluded from funding by Replacement Reserves by this standard are listed above.
- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

GOVERNMENT EXCLUSIONS

EXCLUDED ITEMS

| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST (\$) | NORMAL ECONOMIC LIFE (YRS) | REMAINING ECONOMIC LIFE (YRS) | REPLACEMENT COST (\$) |
|--------|--------------------------------|------|-----------------|----------------------------|----------------------------|-------------------------------|-----------------------|
| | Government, roadways & parking | ls | 1 | | | | EXCLUDED |
| | Government, mailboxes | ls | 1 | | | | EXCLUDED |
| | Government, lighting | ls | 1 | | | | EXCLUDED |

GOVERNMENT EXCLUSIONS

COMMENTS

- Government Exclusions. We have assumed that some of the improvements installed on property owned by the Association will be maintained by the state, county, or local government, or other association or other responsible entity. Examples of items excluded from funding by Replacement Reserves by this standard are listed above.
- Excluded right-of-ways, including LIST ROADS, and adjacent properties.
- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

IRRIGATION SYSTEM EXCLUSIONS

EXCLUDED ITEMS

| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST (\$) | NORMAL ECONOMIC LIFE (YRS) | REMAINING ECONOMIC LIFE (YRS) | REPLACEMENT COST (\$) |
|--------|--------------------------------------|------|-----------------|----------------------------|----------------------------|-------------------------------|-----------------------|
| | Subsurface irrigation pipe | ls | 1 | | | | EXCLUDED |
| | Subsurface irrigation valve | ls | 1 | | | | EXCLUDED |
| | Subsurface irrigation control wiring | ls | 1 | | | | EXCLUDED |

IRRIGATION SYSTEM EXCLUSIONS

COMMENTS

- Irrigation System Exclusions. We have assumed that the maintenance, repair, and periodic replacement of the components of the extensive irrigation systems at the property will not be funded from Replacement Reserves. These systems should be inspected each spring when the systems are brought on line and each fall when they are winterized. Repairs/replacements should be made in conjunction with these inspections.

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PROJECTED ANNUAL REPLACEMENTS GENERAL INFORMATION

CALENDAR OF ANNUAL REPLACEMENTS. The 25 Projected Replacements in the Hammetts Glen Replacement Reserve Inventory whose replacement is scheduled to be funded from Replacement Reserves are broken down on a year-by-year basis, beginning on Page C2.

REPLACEMENT RESERVE ANALYSIS AND INVENTORY POLICIES, PROCEDURES, AND ADMINISTRATION

- **REVISIONS.** Revisions will be made to the Replacement Reserve Analysis and Replacement Reserve Inventory in accordance with the written instructions of the Board of Directors. No additional charge is incurred for the first revision, if requested in writing within three months of the date of the Replacement Reserve Study. It is our policy to provide revisions in electronic (Adobe PDF) format only.
- **TAX CODE.** The United States Tax Code grants favorable tax status to a common interest development (CID) meeting certain guidelines for their Replacement Reserve. If a CID files their taxes as a 'Corporation' on Form 1120 (IRC Section 277), these guidelines typically require maintenance activities, partial replacements, minor replacements, capital improvements, and one-time only replacements to be excluded from Reserves. A CID cannot co-mingle planning for maintenance activities with capital replacement activities in the Reserves (Revenue Ruling 75-370). Funds for maintenance activities and capital replacements activities must be held in separate accounts. If a CID files taxes as an "Exempt Homeowners Association" using Form 1120H (IRC Section 528), the CID does not have to segregate these activities. However, because the CID may elect to change their method of filing from year to year within the Study Period, we advise using the more restrictive approach. We further recommend that the CID consult with their Accountant and consider creating separate and independent accounts and reserves for large maintenance items, such as painting.
- **CONFLICT OF INTEREST.** Neither Miller - Dodson Associates nor the Reserve Analyst has any prior or existing relationship with this Association which would represent a real or perceived conflict of interest.
- **RELIANCE ON DATA PROVIDED BY THE CLIENT.** Information provided by an official representative of the Association regarding financial, physical conditions, quality, or historical issues is deemed reliable.
- **INTENT.** This Replacement Reserve Study is a reflection of the information provided by the Association and the visual evaluations of the Analyst. It has been prepared for the sole use of the Association and is not for the purpose of performing an audit, quality/forensic analyses, or background checks of historical records.
- **PREVIOUS REPLACEMENTS.** Information provided to Miller - Dodson Associates regarding prior replacements is considered to be accurate and reliable. Our visual evaluation is not a project audit or quality inspection.
- **EXPERIENCE WITH FUTURE REPLACEMENTS.** The Calendar of Annual Projected Replacements, lists replacements we have projected to occur over the next thirty years, begins on Page C2. Actual experience in replacing the items may differ significantly from the cost estimates and time frames shown because of conditions beyond our control. These differences may be caused by maintenance practices, inflation, variations in pricing and market conditions, future technological developments, regulatory actions, acts of God, and luck. Some items may function normally during our visual evaluation and then fail without notice.
- **REVIEW OF THE REPLACEMENT RESERVE STUDY.** For this study to be effective, it should be reviewed by the Hammetts Glen Board of Directors, those responsible for the management of the items included in the Replacement Reserve Inventory, and the accounting professionals employed by the Association.

PROJECTED REPLACEMENTS - YEARS ONE TO FIFTEEN

| Item | 2019 - STUDY YEAR | \$ |
|------------------------------|---------------------------|----------|
| 1 | Asphalt path, overlay | \$31,155 |
| 3 | Concrete flatwork (3%) | \$1,820 |
| 6 | Entrance monument, (10% r | \$3,298 |
| 13 | Pond aeration (allowance) | \$1,000 |
| Total Scheduled Replacements | | \$37,273 |

| Item | 2020 - YEAR 2 | \$ |
|------------------------------|-------------------------|----------|
| 11 | Landscaping (allowance) | \$23,000 |
| Total Scheduled Replacements | | \$23,000 |

| Item | 2021 - YEAR 3 | \$ |
|------------------------------|---------------------|---------|
| 17 | B1-Wood PTL decking | \$3,850 |
| 18 | B1-Wood PTL railing | \$2,340 |
| Total Scheduled Replacements | | \$6,190 |

| Item | 2022 - YEAR 4 | \$ |
|------------------------------|---------------------|---------|
| 20 | B2-Wood PTL decking | \$2,750 |
| 21 | B2-Wood PTL railing | \$2,184 |
| Total Scheduled Replacements | | \$4,934 |

| Item | 2023 - YEAR 5 | \$ |
|------------------------------|---------------------|----------|
| 23 | B3-Wood PTL decking | \$12,100 |
| 24 | B3-Wood PTL railing | \$10,400 |
| Total Scheduled Replacements | | \$22,500 |

| Item | 2024 - YEAR 6 | \$ |
|------------------------------|---------------------------|---------|
| 2 | Asphalt path, seal coat | \$3,015 |
| 5 | Fence gate, pond | \$480 |
| 9 | Irrigation, (allowance) | \$3,000 |
| 13 | Pond aeration (allowance) | \$1,000 |
| Total Scheduled Replacements | | \$7,495 |

| Item | 2025 - YEAR 7 | \$ |
|------------------------------|---------------------------|----------|
| 3 | Concrete flatwork (3%) | \$1,820 |
| 10 | Landscape lighting | \$3,230 |
| 11 | Landscaping (allowance) | \$23,000 |
| 14 | Storm water management (e | \$1,500 |
| Total Scheduled Replacements | | \$29,550 |

| Item | 2026 - YEAR 8 | \$ |
|---------------------------|---------------|----|
| No Scheduled Replacements | | |

| Item | 2027 - YEAR 9 | \$ |
|---------------------------|---------------|----|
| No Scheduled Replacements | | |

| Item | 2028 - YEAR 10 | \$ |
|---------------------------|----------------|----|
| No Scheduled Replacements | | |

| Item | 2029 - YEAR 11 | \$ |
|------------------------------|-----------------------------|----------|
| 2 | Asphalt path, seal coat | \$3,015 |
| 4 | Fence, metal, pond perimetr | \$23,925 |
| 6 | Entrance monument, (10% r | \$3,298 |
| 13 | Pond aeration (allowance) | \$1,000 |
| Total Scheduled Replacements | | \$31,238 |

| Item | 2030 - YEAR 12 | \$ |
|------------------------------|-------------------------|----------|
| 11 | Landscaping (allowance) | \$23,000 |
| Total Scheduled Replacements | | \$23,000 |

| Item | 2031 - YEAR 13 | \$ |
|------------------------------|------------------------|---------|
| 3 | Concrete flatwork (3%) | \$1,820 |
| 25 | Fence, timber | \$1,800 |
| Total Scheduled Replacements | | \$3,620 |

| Item | 2032 - YEAR 14 | \$ |
|---------------------------|----------------|----|
| No Scheduled Replacements | | |

| Item | 2033 - YEAR 15 | \$ |
|---------------------------|----------------|----|
| No Scheduled Replacements | | |

PROJECTED REPLACEMENTS - YEARS SIXTEEN TO THIRTY

| Item | 2034 - YEAR 16 | \$ |
|------------------------------|---------------------------|---------|
| 2 | Asphalt path, seal coat | \$3,015 |
| 5 | Fence gate, pond | \$480 |
| 9 | Irrigation, (allowance) | \$3,000 |
| 13 | Pond aeration (allowance) | \$1,000 |
| Total Scheduled Replacements | | \$7,495 |

| Item | 2035 - YEAR 17 | \$ |
|------------------------------|----------------------------|----------|
| 11 | Landscaping (allowance) | \$23,000 |
| 12 | Storm water pond dredging | \$30,000 |
| 14 | Storm water management (€) | \$1,500 |
| 15 | Entrance monument, wood € | \$1,000 |
| Total Scheduled Replacements | | \$55,500 |

| Item | 2036 - YEAR 18 | \$ |
|------------------------------|----------------------------|----------|
| 16 | B1-Wood ped. bridge, PTL € | \$17,150 |
| 17 | B1-Wood PTL decking | \$3,850 |
| 18 | B1-Wood PTL railing | \$2,340 |
| Total Scheduled Replacements | | \$23,340 |

| Item | 2037 - YEAR 19 | \$ |
|------------------------------|----------------------------|----------|
| 3 | Concrete flatwork (3%) | \$1,820 |
| 19 | B2-Wood ped. bridge, PTL € | \$12,250 |
| 20 | B2-Wood PTL decking | \$2,750 |
| 21 | B2-Wood PTL railing | \$2,184 |
| Total Scheduled Replacements | | \$19,004 |

| Item | 2038 - YEAR 20 | \$ |
|------------------------------|----------------------------|----------|
| 22 | B3-Wood ped. bridge, PTL € | \$53,900 |
| 23 | B3-Wood PTL decking | \$12,100 |
| 24 | B3-Wood PTL railing | \$10,400 |
| Total Scheduled Replacements | | \$76,400 |

| Item | 2039 - YEAR 21 | \$ |
|------------------------------|---------------------------|----------|
| 1 | Asphalt path, overlay | \$31,155 |
| 2 | Asphalt path, seal coat | \$3,015 |
| 6 | Entrance monument, (10% r | \$3,298 |
| 13 | Pond aeration (allowance) | \$1,000 |
| Total Scheduled Replacements | | \$38,468 |

| Item | 2040 - YEAR 22 | \$ |
|------------------------------|-------------------------|----------|
| 10 | Landscape lighting | \$3,230 |
| 11 | Landscaping (allowance) | \$23,000 |
| Total Scheduled Replacements | | \$26,230 |

| Item | 2041 - YEAR 23 | \$ |
|------------------------------|-------------------------------|---------|
| 7 | Sign & post, street | \$1,140 |
| 8 | Sign & post, other, stop sign | \$1,225 |
| Total Scheduled Replacements | | \$2,365 |

| Item | 2042 - YEAR 24 | \$ |
|---------------------------|----------------|----|
| No Scheduled Replacements | | |

| Item | 2043 - YEAR 25 | \$ |
|------------------------------|------------------------|---------|
| 3 | Concrete flatwork (3%) | \$1,820 |
| Total Scheduled Replacements | | \$1,820 |

| Item | 2044 - YEAR 26 | \$ |
|------------------------------|---------------------------|---------|
| 2 | Asphalt path, seal coat | \$3,015 |
| 5 | Fence gate, pond | \$480 |
| 9 | Irrigation, (allowance) | \$3,000 |
| 13 | Pond aeration (allowance) | \$1,000 |
| Total Scheduled Replacements | | \$7,495 |

| Item | 2045 - YEAR 27 | \$ |
|------------------------------|----------------------------|----------|
| 11 | Landscaping (allowance) | \$23,000 |
| 14 | Storm water management (€) | \$1,500 |
| Total Scheduled Replacements | | \$24,500 |

| Item | 2046 - YEAR 28 | \$ |
|------------------------------|----------------|---------|
| 25 | Fence, timber | \$1,800 |
| Total Scheduled Replacements | | \$1,800 |

| Item | 2047 - YEAR 29 | \$ |
|---------------------------|----------------|----|
| No Scheduled Replacements | | |

| Item | 2048 - YEAR 30 | \$ |
|---------------------------|----------------|----|
| No Scheduled Replacements | | |

PROJECTED REPLACEMENTS - YEARS THIRTY-ONE TO FORTY-FIVE

| Item | 2049 - YEAR 31 | \$ |
|------------------------------|------------------------------|----------|
| 2 | Asphalt path, seal coat | \$3,015 |
| 3 | Concrete flatwork (3%) | \$1,820 |
| 4 | Fence, metal, pond perimeter | \$23,925 |
| 6 | Entrance monument, (10% r | \$3,298 |
| 13 | Pond aeration (allowance) | \$1,000 |
| Total Scheduled Replacements | | \$33,058 |

| Item | 2050 - YEAR 32 | \$ |
|------------------------------|-------------------------|----------|
| 11 | Landscaping (allowance) | \$23,000 |
| Total Scheduled Replacements | | \$23,000 |

| Item | 2051 - YEAR 33 | \$ |
|------------------------------|---------------------|---------|
| 17 | B1-Wood PTL decking | \$3,850 |
| 18 | B1-Wood PTL railing | \$2,340 |
| Total Scheduled Replacements | | \$6,190 |

| Item | 2052 - YEAR 34 | \$ |
|------------------------------|---------------------|---------|
| 20 | B2-Wood PTL decking | \$2,750 |
| 21 | B2-Wood PTL railing | \$2,184 |
| Total Scheduled Replacements | | \$4,934 |

| Item | 2053 - YEAR 35 | \$ |
|------------------------------|---------------------|----------|
| 23 | B3-Wood PTL decking | \$12,100 |
| 24 | B3-Wood PTL railing | \$10,400 |
| Total Scheduled Replacements | | \$22,500 |

| Item | 2054 - YEAR 36 | \$ |
|------------------------------|---------------------------|---------|
| 2 | Asphalt path, seal coat | \$3,015 |
| 5 | Fence gate, pond | \$480 |
| 9 | Irrigation, (allowance) | \$3,000 |
| 13 | Pond aeration (allowance) | \$1,000 |
| Total Scheduled Replacements | | \$7,495 |

| Item | 2055 - YEAR 37 | \$ |
|------------------------------|---------------------------|----------|
| 3 | Concrete flatwork (3%) | \$1,820 |
| 10 | Landscape lighting | \$3,230 |
| 11 | Landscaping (allowance) | \$23,000 |
| 12 | Storm water pond dredging | \$30,000 |
| 14 | Storm water management (ε | \$1,500 |
| 15 | Entrance monument, wood ε | \$1,000 |
| Total Scheduled Replacements | | \$60,550 |

| Item | 2056 - YEAR 38 | \$ |
|---------------------------|----------------|----|
| No Scheduled Replacements | | |

| Item | 2057 - YEAR 39 | \$ |
|---------------------------|----------------|----|
| No Scheduled Replacements | | |

| Item | 2058 - YEAR 40 | \$ |
|---------------------------|----------------|----|
| No Scheduled Replacements | | |

| Item | 2059 (beyond Study Period) | \$ |
|------------------------------|----------------------------|----------|
| 1 | Asphalt path, overlay | \$31,155 |
| 2 | Asphalt path, seal coat | \$3,015 |
| 6 | Entrance monument, (10% r | \$3,298 |
| 13 | Pond aeration (allowance) | \$1,000 |
| Total Scheduled Replacements | | \$38,468 |

| Item | 2060 (beyond Study Period) | \$ |
|------------------------------|----------------------------|----------|
| 11 | Landscaping (allowance) | \$23,000 |
| Total Scheduled Replacements | | \$23,000 |

| Item | 2061 (beyond Study Period) | \$ |
|------------------------------|----------------------------|---------|
| 3 | Concrete flatwork (3%) | \$1,820 |
| 25 | Fence, timber | \$1,800 |
| Total Scheduled Replacements | | \$3,620 |

| Item | 2062 (beyond Study Period) | \$ |
|---------------------------|----------------------------|----|
| No Scheduled Replacements | | |

| Item | 2063 (beyond Study Period) | \$ |
|---------------------------|----------------------------|----|
| No Scheduled Replacements | | |

CONDITION ASSESSMENT

General Comments. Miller-Dodson Associates conducted a Reserve Study at Hammett's Glen in June 2018. Hammett's Glen is in generally good condition for a community constructed in 1999. A review of the Replacement Reserve Inventory will show that we are anticipating most of the components achieving their normal economic lives.

The following comments pertain to the larger, more significant components in the Replacement Reserve Inventory and to those items that are unique or deserving of attention because of their condition or the manner in which they have been treated in the Replacement Reserve Analysis or Inventory.

General Condition Statements.

Excellent. 100% to 90% of Normal Economic Life expected, with no appreciable wear or defects.

Good. 90% to 60% of Normal Economic Life expected, minor wear or cosmetic defects found. Normal maintenance should be expected. If performed properly, normal maintenance may increase the useful life of a component. Otherwise, the component is wearing normally.

Fair. 60% to 30% of Normal Economic Life expected, moderate wear with defects found. Repair actions should be taken to extend the life of the component or to correct repairable defects and distress. Otherwise, the component is wearing normally.

Marginal. 30% to 10% of Normal Economic Life expected, with moderate to significant wear or distress found. Repair actions are expected to be cost effective for localized issues, but normal wear and use are evident. The component is reaching the end of the Normal Economic Life.

Poor. 10% to 0% of Normal Economic Life expected, with significant distress and wear. Left unattended, additional damage to underlying structures is likely to occur. Further maintenance is unlikely to be cost effective.

SITE COMPONENTS

Entry Monument and Signage. The Association maintains an entrance monument. The monument is made of brick and is in fair condition. Several areas were discovered to have open joints. It is recommended that the Association repoint these joints as soon as possible. Open masonry joints, loose and broken masonry units can cause water penetration to develop. During the winter months especially, separation of the masonry units will occur due to expansion and contraction brought about by temperature changes. The entrance monument is currently showing signs of displacement.

The monument lettering is wood and is expected to have a useful life of 15 to 20 years.

The Association may want to consider applying a coat of Siloxane or other appropriate breathable sealant to mitigate water penetration and further degradation of the masonry work. For additional information, please see the appropriate links on our web site at <http://mdareserves.com/resources/links/building-exterior>.



In addition to the monuments, the Association is responsible for the community's signage including stop, speed, street, and other major signs. Other small miscellaneous signs are not considered in this study and should be replaced using other funds.

Asphalt Pathway. The Association is responsible for the asphalt pathway within the community. All other asphalt paving, including the streets, are not the responsibility of the Association. In general, the asphalt pathways are in poor condition, with wide cracking and distress in several locations. The Association maintains approximately 6,700 square feet of asphalt pathway.



As a rule of thumb, asphalt should be overlaid when approximately 5% of the surface area is cracked or otherwise deteriorated. The normal service life of asphalt pavement is typically 18 to 20 years.

In order to maintain the condition of the pavement throughout the community and to ensure the longest life of the asphalt, we recommend a systematic and comprehensive maintenance program that includes:

- **Cleaning.** Long-term exposure to oil or gas breaks down asphalt. Because this asphalt pavement is generally not used for long-term parking, it is unlikely that frequent cleaning will be necessary. When necessary, spill areas should be cleaned or patched if deterioration has penetrated the asphalt. This is a maintenance activity, and we have assumed that it will not be funded from Reserves.
- **Crack Repair.** All cracks should be repaired with an appropriate compound to prevent water infiltration through the asphalt into the base. This repair should be done annually. Crack repair is normally considered a maintenance activity and is not funded from Reserves. Areas of extensive cracking or deterioration that cannot be made watertight should be cut out and patched.

- **Seal Coating.** The asphalt should be seal coated every five to seven years. For this maintenance, activity to be effective in extending the life of the asphalt, cleaning and crack repair should be performed first.

The pricing used is based on recent contracts for a two-inch overlay, which reflects the current local market for this work.

For seal coating, several different products are available. The older, more traditional seal coating products are simply paints. They coat the surface of the asphalt and they are minimally effective. However, the newer coating materials, such as those from Total Asphalt Management, Asphalt Restoration Technologies, Inc., and others, are penetrating. They are engineered, so to speak, to 'remoisturize' the pavement. Asphalt pavement is intended to be flexible. Over time, the volatile chemicals in the pavement dry, the pavement becomes brittle, and degradation follows in the forms of cracking and potholes. Remoisturizing the pavement can return its flexibility and extend the life of the pavement.

Lastly, the resource links provided on our website may provide insight into the general terms and concerns, including maintenance related advantages and disadvantages, which may help the Association better manage the asphalt pavements throughout the community: <http://mdareserves.com/resources/links/site-components>.

Concrete Work. The concrete work includes the community sidewalks. The overall condition of the concrete work is good with no tripping hazards. There are a few areas of general deterioration, including cracking.



The standards we use for recommending replacement are as follows:

- Trip hazard, ½ inch height difference.
- Severe cracking.
- Severe spalling and scale.
- Uneven riser heights on steps.
- Steps with risers in excess of 8¼ inches.

Because it is highly unlikely that all of the concrete components will fail and require replacement in the period of the study, we have programmed funds for the replacement of these inventories and spread the funds over an extended timeframe to reflect the incremental nature of this work. Because the concrete work is in rather good condition, we have allocated a 3% replacement for every six years.

The relevant links on our web site may provide useful information related to concrete terminology, maintenance, and repair. Please see <http://mdareserves.com/resources/links/site-components>.

Site Lighting. The Association is responsible for the operation of the facility's landscape lighting. The lighting system was not on at the time of the site visit. We understand that the lighting system is in good operating condition.



This study assumes replacement of the landscape lighting fixtures every 15 years.

When a whole-scale lighting replacement project is called for, we recommend consulting with a lighting design expert. Many municipalities have design codes, guidelines, and restrictions when it comes to exterior illumination.

In addition, new technology such LED and LIFI among others should be evaluated when considering replacement.

Fencing, Wooden Spilt Rail and Metal. The Association maintains wooden split rail fencing that is in generally **good** condition. This type of fencing is typically replaced on an as needed basis when railings and posts decay or become unsightly. In addition, the Association maintains metal fencing around the perimeter of the storm water pond. The metal fencing is in good condition.



Protection from string machine damage during lawn maintenance can extend the useful life of the railing posts. Applying herbicides around post bases or installing protective sheathing are the typical ways of protecting from string machine damage.

For more information on fencing, visit our [website link](#) to the American Fence Association.

Underground Utilities. The Association is responsible for the maintenance of the underground utility lines. We have provided an estimate of the approximate replacement costs based on our experience with other facilities of similar size and configuration. The inspection and evaluation of underground lines and structures is beyond the scope of work for this study



Irrigation. The Association is responsible for the maintenance of an irrigation system. The irrigation system is presently in good condition. We have included an allowance for this system.



Signage. The Association is responsible for the maintenance of all street signage as well as traffic signage. There are approximately 4 street signs, and 5 traffic signs located throughout the community. All signage at the time of the site visit appears to be in good condition. We anticipate that all signage will be replaced at one time, approximately every 30 years.



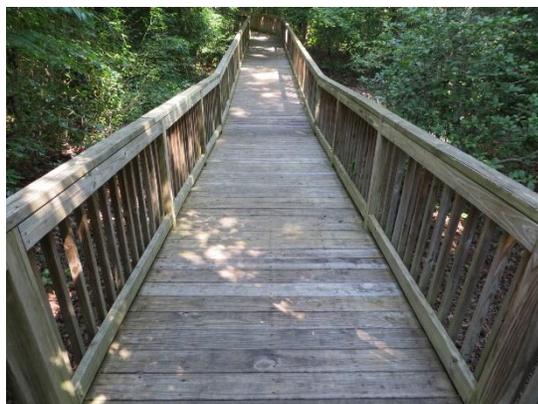
Pathway Bridge #1. The Association maintains three bridges throughout the community. The first bridge, Pathway Bridge #1 is approximately 350 square feet in area. The replacement parts of this bridge are broken into three parts. The first part is the structural frame of the bridge. The structural frame has a service life of approximately 30 to 35 years. The second part of the bridge is the deck. There is approximately 350 square feet of deck. The service life of the deck is approximately 15 years. The third part of the bridge is the railing system. There is approximately 90 linear feet of railing. The railing system has a service life of approximately 15 years.



Pathway Bridge #2. The second bridge, Pathway Bridge #2, is approximately 250 square feet in area. The replacement parts of this bridge are broken into three parts. The first part is the structural frame of the bridge. The structural frame has a service life of approximately 30 to 35 years. The second part of the bridge is the deck. There is approximately 250 square feet of deck. The service life of the deck is approximately 15 years. The third part of the bridge is the railing system. There is approximately 84 linear feet of railing. The railing system has a service life of approximately 15 years.



Pathway Bridge #3. The third bridge, Pathway Bridge #3, is approximately 1,100 square feet in area. The replacement parts of this bridge are broken into three parts. The first part is the structural frame of the bridge. The structural frame has a service life of approximately 30 to 35 years. The second part of the bridge is the deck. There is approximately 1,100 square feet of deck. The service life of the deck is approximately 15 years. The third part of the bridge is the railing system. There is approximately 86 linear feet of railing. The railing system has a service life of approximately 15 years.



Storm Water Pond. The community is served by one storm water pond. Summers Duffie, of Land Power, LLC, presently maintains the pond at Hammett's Glen. Mr. Duffie was consulted on the history, and present condition of the pond. The pond presently employs an aeration system that was not on at the time of the site visit.



Ponds will accumulate silt and over time and lose the ability to store storm water at design levels, which could result in overflows and minor local flooding. In addition, water quality can be negatively affected by increased siltation and debris accumulation. Accordingly, ponds require periodic dredging.

Estimates of cost and the frequency of dredging ponds are a function of many variables, including the volume of the pond, the siltation rate, the nature of the material being removed, the method of removal, and the haul distance to a site that will accept the spoil material. Most of this information is unknown and must be assumed for the purpose of reserve study planning. The siltation rate and cost of periodic dredging are speculative, varying greatly depending on local conditions.

As a rule of thumb, dredging should be performed when approximately one-third of the volume of the pond has been filled with silt. In the absence of accurate information about the original depth of the pond and the local siltation rate, we have assumed that it will be necessary to remove one cubic yard of material over a third of the pond area periodically as noted in the inventory. We have assumed that the material being removed is free of heavy metals and hydrocarbons, and that it will be accepted as fill at a local landfill. A more accurate prediction of cost and cycles will require a hydrologic analysis and testing, which is beyond the scope of our study.

As a supplement to traditional dredging methods, hydro-raking can prolong the interval between dredging.

Because of the significant cost of this work, it is recommended that the Association undertake studies to refine the assumptions of this study.

Based on our understanding, we recommend the following:

- Periodically remove accumulated debris and vegetation growing in the ponds.
- Survey the ponds to establish the current profile of the bottom. After five years of operation, have the pond re-surveyed to establish new depths to determine the local siltation rate. This will establish the frequency required for periodic dredging.
- Periodically sample and test for contaminants.
- Consult with local contractors to determine the cost of removing and disposing of the spoil, once its nature is known.

Firms that specialize in this work can be typically found by internet searching "Lake and Pond, Construction and Maintenance" for your state or area of the country. Some states provide short lists of companies that specialize in this type of work.

Please note that the periodic removal of overgrown vegetation from the pond is considered a maintenance activity and has not been reserved for or included in this study.

Storm water structures must be maintained over time so that they may perform their two major functions - storm water storage and storm water quality improvement. A well-planned maintenance program is the best way to ensure that these structures will continue to perform their water quality and quantity functions.

The following information outlines the general maintenance considerations for storm-water management structures. Storm-water management structures will require routine and non-routine maintenance. Routine maintenance such as visual inspections, vegetation management, and the regular removal of debris and litter provides a variety of benefits such as reducing the chance of clogging outlet structures, trash racks, risers, and other facility components. It is important to note that while general maintenance tasks are suggested, actual maintenance needs are very site specific. Below is a lists component of a general maintenance program.

- | <u>Routine</u> | <u>Non-Routine</u> |
|---|-------------------------------------|
| • Visual Inspection | Bank Stabilization |
| • Vegetation Management | Sediment Removal |
| • Debris/Litter Control Outlet | Structure Maintenance / Replacement |
| • Maintaining Undisturbed Areas Around Infiltration Trenches/Basins (routine) | |
| • Maintenance of Mechanical Components (dependent on age of structure; non-routine) | |

Ponds should be inspected once a year, addressing the items listed below.

MINIMUM INSPECTION CHECKLIST FOR PONDS.

- Obstructions of the inlet or outlet devices by trash and debris
- Excessive erosion or sedimentation in the basin
- Cracking or settling of the dam
- Low spots in the bottom of a dry pond
- Deterioration of pipes
- Condition of the emergency spillway
- Stability of the side-slopes
- Upstream and downstream channel conditions
- Signs of vandalism

Vegetation Management. Grass is usually used around and in storage ponds to prevent erosion and to filter sediment. The grass near the pond should not be over-fertilized, or the excessive nutrients will be washed into the pond and contribute to the growth of algae. Grass should be cut no shorter than 6-8 inches.

Please note that the periodic removal of overgrown vegetation from the pond is considered a maintenance activity and has not been reserved for or included in this study.

Sediment Removal. One of the main purposes of a storm-water management pond is to remove sediment from storm water. As water flows through the pond, sediment will accumulate and eventually will need to be removed. Storm-water management structures vary in design and shape. Therefore, there is no general rule for the frequency of sediment removal. Upstream conditions such as land use, type of land cover (vegetated vs. paved), and soil types are important factors in determining how rapidly sediment will accumulate in a pond. Sediment removal is usually the single largest cost of maintaining a storm-water management structure. Owners are responsible for maintaining the facility and should plan ahead, setting aside the necessary funds to pay for sediment removal. The best solution to sediment removal is to designate an on-site area or a site adjacent to the facility where the sediment can be disposed. This area will need to locate outside of the floodplain. If such a disposal area is not available, the sediment will need to be transported and disposed of off-site. Transportation costs and disposal fees can greatly increase the cost of sediment removal. Once the sediment is removed, the bottom of the basin and any disturbed areas will need to be stabilized and re-vegetated, or the structure will quickly clog and require sediment removal again.

We have provided funds for the minor dredging of the detention pond and clearing of the swales, creek area, and drainage lines. Because of the significance of the cost of this work in establishing the correct reserve contribution, it is recommended that the Association undertake studies to refine the information and replace the assumptions we have had to make with more factual information as a basis for the estimates.

This Condition Assessment is based upon our visual survey of the property. The sole purpose of the visual survey was an evaluation of the common elements of the property to ascertain the remaining useful life and the replacement costs of these common elements. Our evaluation assumed that all components met building code requirements in force at the time of construction. Our visual survey was conducted with care by experienced persons, but no warranty or guarantee is expressed or implied.

End of Condition Assessment

CASH FLOW METHOD ACCOUNTING SUMMARY

This Hammetts Glen - Cash Flow Method Accounting Summary is an attachment to the Hammetts Glen - Replacement Reserve Study dated Revised November 12, 2018 and is for use by accounting and reserve professionals experienced in Association funding and accounting principles. This Summary consists of four reports, the 2019, 2020, and 2021 Cash Flow Method Category Funding Reports (3) and a Three-Year Replacement Funding Report.

- CASH FLOW METHOD CATEGORY FUNDING REPORT, 2019, 2020, and 2021. Each of the 25 Projected Replacements listed in the Hammetts Glen Replacement Reserve Inventory has been assigned to one of 2 categories. The following information is summarized by category in each report:
 - Normal Economic Life and Remaining Economic Life of the Projected Replacements.
 - Cost of all Scheduled Replacements in each category.
 - Replacement Reserves on Deposit allocated to the category at the beginning and end of the report period.
 - Cost of Projected Replacements in the report period.
 - Recommended Replacement Reserve Funding allocated to the category during the report period as calculated by the Cash Flow Method.
- THREE-YEAR REPLACEMENT FUNDING REPORT. This report details the allocation of the \$59,000 Beginning Balance (at the start of the Study Year) and the \$53,487 of additional Replacement Reserve Funding in 2019 through 2021 (as calculated in the Replacement Reserve Analysis) to each of the 25 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made using Chronological Allocation, a method developed by Miller Dodson Associates, Inc., and discussed below. The calculated data includes:
 - Identification and estimated cost of each Projected Replacement scheduled in years 2019 through 2021.
 - Allocation of the \$59,000 Beginning Balance to the Projected Replacements by Chronological Allocation.
 - Allocation of the \$53,487 of additional Replacement Reserve Funding recommended in the Replacement Reserve Analysis in years 2019 through 2021, by Chronological Allocation.
- CHRONOLOGICAL ALLOCATION. Chronological Allocation assigns Replacement Reserves to Projected Replacements on a "first come, first serve" basis in keeping with the basic philosophy of the Cash Flow Method. The Chronological Allocation methodology is outlined below.
 - The first step is the allocation of the \$59,000 Beginning Balance to the Projected Replacements in the Study Year. Remaining unallocated funds are next allocated to the Projected Replacements in subsequent years in chronological order until the total of Projected Replacements in the next year is greater than the unallocated funds. Projected Replacements in this year are partially funded with each replacement receiving percentage funding. The percentage of funding is calculated by dividing the unallocated funds by the total of Projected Replacements in the partially funded year.

At Hammetts Glen the Beginning Balance funds all Scheduled Replacements in the Study Year through 2019 and provides partial funding (94%) of replacements scheduled in 2020.
 - The next step is the allocation of the \$17,829 of 2019 Cash Flow Method Reserve Funding calculated in the Replacement Reserve Analysis. These funds are first allocated to fund the partially funded Projected Replacements and then to subsequent years in chronological order as outlined above.

At Hammetts Glen the Beginning Balance and the 2019 Replacement Reserve Funding, funds replacements through 2022 and partial funds (24.1%) replacements in 2023.
 - Allocations of the 2020 and 2021 Reserve Funding are done using the same methodology.
 - The Three-Year Replacement Funding Report details component by component allocations made by Chronological Allocation.

2019 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 25 Projected Replacements included in the Hammetts Glen Replacement Reserve Inventory has been assigned to one of the 2 categories listed in TABLE CF1 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- A Beginning Balance of \$59,000 as of the first day of the Study Year, January 1, 2019.
- Total reserve funding (including the Beginning Balance) of \$76,829 in the Study Year.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2019 being accomplished in 2019 at a cost of \$37,273.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

| 2019 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF1 | | | | | | | |
|--|----------------------------|-------------------------------|----------------------------------|------------------------------|----------------------------|-----------------------------------|--------------------------------|
| CATEGORY | NORMAL ECONOMIC LIFE | REMAINING ECONOMIC LIFE | ESTIMATED REPLACEMENT COST | 2019 BEGINNING BALANCE | 2019 RESERVE FUNDING | 2019 PROJECTED REPLACEMENTS | 2019 END OF YEAR BALANCE |
| SITE COMPONENTS | 5 to 30 years | 0 to 22 years | \$128,788 | \$59,000 | \$1,273 | (\$37,273) | \$23,000 |
| SITE COMPONENTS | 15 to 30 years | 2 to 19 years | \$118,724 | | \$16,556 | | \$16,556 |

2020 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 25 Projected Replacements included in the Hammetts Glen Replacement Reserve Inventory has been assigned to one of the 2 categories listed in TABLE CF2 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$39,556 on January 1, 2020.
- Total reserve funding (including the Beginning Balance) of \$94,658 from 2019 through 2020.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2020 being accomplished in 2020 at a cost of \$23,000.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

2020 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF2

| CATEGORY | NORMAL ECONOMIC LIFE | REMAINING ECONOMIC LIFE | ESTIMATED REPLACEMENT COST | 2020 BEGINNING BALANCE | 2020 RESERVE FUNDING | 2020 PROJECTED REPLACEMENTS | 2020 END OF YEAR BALANCE |
|-----------------|----------------------------|-------------------------------|----------------------------------|------------------------------|----------------------------|-----------------------------------|--------------------------------|
| SITE COMPONENTS | 5 to 30 years | 0 to 21 years | \$128,788 | \$23,000 | \$761 | (\$23,000) | \$761 |
| SITE COMPONENTS | 15 to 30 years | 1 to 18 years | \$118,724 | \$16,556 | \$17,068 | | \$33,624 |

2021 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 25 Projected Replacements included in the Hammetts Glen Replacement Reserve Inventory has been assigned to one of the 2 categories listed in TABLE CF3 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$34,385 on January 1, 2021.
- Total Replacement Reserve funding (including the Beginning Balance) of \$112,487 from 2019 to 2021.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2021 being accomplished in 2021 at a cost of \$6,190.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

| 2021 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF3 | | | | | | | |
|--|----------------------------|-------------------------------|----------------------------------|------------------------------|----------------------------|-----------------------------------|--------------------------------|
| CATEGORY | NORMAL ECONOMIC LIFE | REMAINING ECONOMIC LIFE | ESTIMATED REPLACEMENT COST | 2021 BEGINNING BALANCE | 2021 RESERVE FUNDING | 2021 PROJECTED REPLACEMENTS | 2021 END OF YEAR BALANCE |
| SITE COMPONENTS | 5 to 30 years | 3 to 20 years | \$128,788 | \$761 | \$17,829 | | \$18,590 |
| SITE COMPONENTS | 15 to 30 years | 0 to 17 years | \$118,724 | \$33,624 | | (\$6,190) | \$27,434 |

COMPONENT METHOD

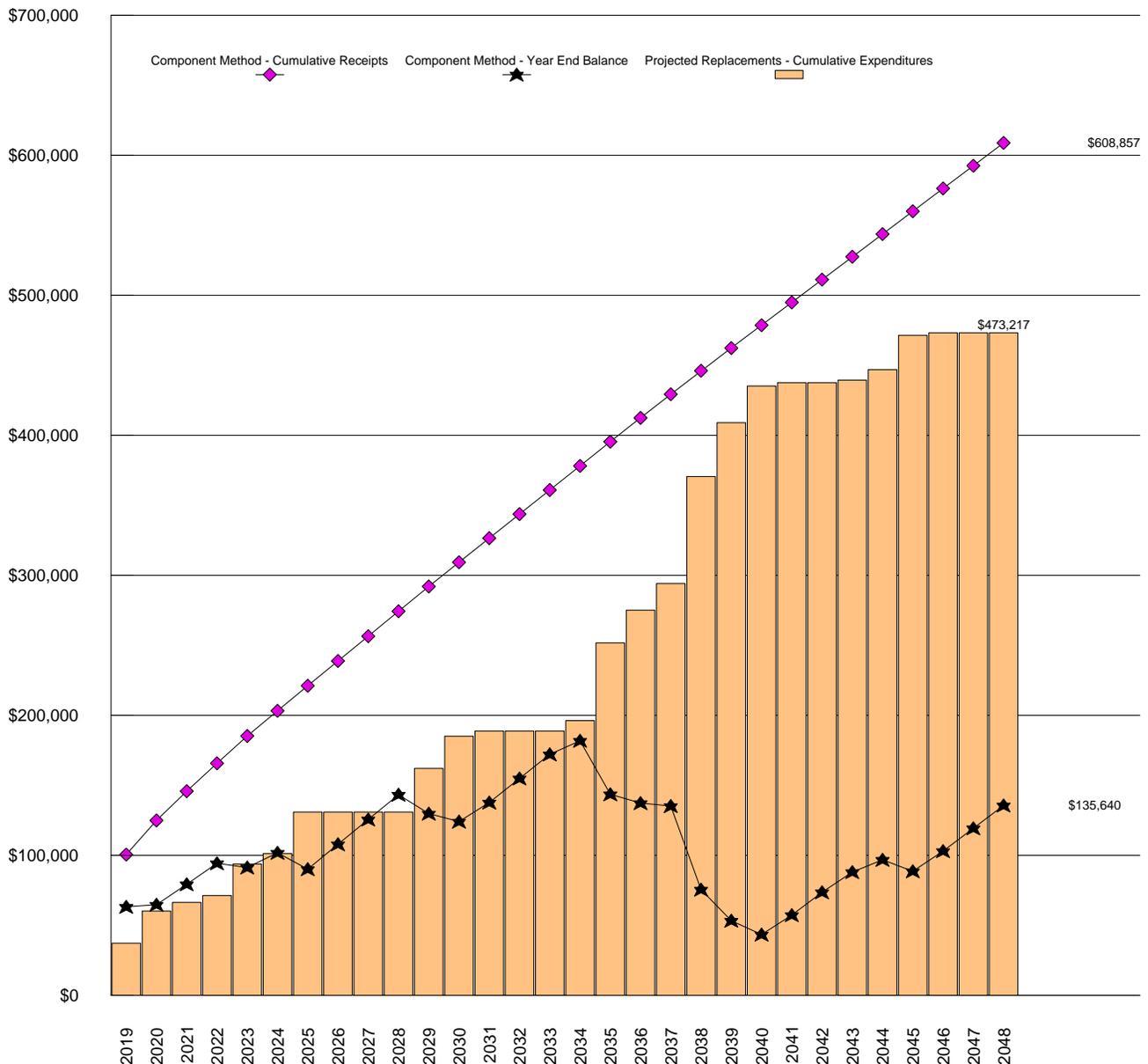


\$41,550 COMPONENT METHOD RECOMMENDED ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2019.

\$50.92 Per unit (average), recommended monthly funding of Replacement Reserves

General. The Component Method (also referred to as the Full Funded Method) is a very conservative mathematical model developed by HUD in the early 1980s. Each of the 25 Projected Replacements listed in the Replacement Reserve Inventory is treated as a separate account. The Beginning Balance is allocated to each of the individual accounts, as is all subsequent funding of Replacement Reserves. These funds are "locked" in these individual accounts and are not available to fund other Projected Replacements. The calculation of Recommended Annual Funding of Replacement Reserves is a multi-step process outlined in more detail on Page CM2.

Component Method - Cumulative Receipts and Expenditures Graph



COMPONENT METHOD (cont'd)

- **Current Funding Objective.** A Current Funding Objective is calculated for each of the Projected Replacements listed in the Replacement Reserve Inventory. Replacement Cost is divided by the Normal Economic Life to determine the nominal annual contribution. The Remaining Economic Life is then subtracted from the Normal Economic Life to calculate the number of years that the nominal annual contribution should have been made. The two values are then multiplied to determine the Current Funding Objective. This is repeated for each of the 25 Projected Replacements. The total, \$123,734, is the Current Funding Objective.

For an example, consider a very simple Replacement Reserve Inventory with one Projected Replacement, a fence with a \$1,000 Replacement Cost, a Normal Economic Life of 10 years, and a Remaining Economic Life of 2 years. A contribution to Replacement Reserves of \$100 (\$1,000 + 10 years) should have been made in each of the previous 8 years (10 years - 2 years). The result is a Current Funding Objective of \$800 (8 years x \$100 per year).

- **Funding Percentage.** The Funding Percentage is calculated by dividing the Beginning Balance (\$59,000) by the Current Funding Objective (\$123,734). At Hammetts Glen the Funding Percentage is 47.7%
- **Allocation of the Beginning Balance.** The Beginning Balance is divided among the 25 Projected Replacements in the Replacement Reserve Inventory. The Current Funding Objective for each Projected Replacement is multiplied by the Funding Percentage and these funds are then "locked" into the account of each item.

If we relate this calculation back to our fence example, it means that the Association has not accumulated \$800 in Reserves (the Funding Objective), but rather at 47.7 percent funded, there is \$381 in the account for the fence.

- **Annual Funding.** The Recommended Annual Funding of Replacement Reserves is then calculated for each Projected Replacement. The funds allocated to the account of the Projected Replacement are subtracted from the Replacement Cost. The result is then divided by the number of years until replacement, and the result is the annual funding for each of the Projected Replacements. The sum of these is \$41,550, the Component Method Recommended Annual Funding of Replacement Reserves in the Study Year (2019).

In our fence example, the \$381 in the account is subtracted from the \$1,000 Total Replacement Cost and divided by the 2 years that remain before replacement, resulting in an annual deposit of \$309. Next year, the deposit remains \$309, but in the third year, the fence is replaced and the annual funding adjusts to \$100.

- **Adjustment to the Component Method for interest and inflation.** The calculations in the Replacement Reserve Analysis do not account for interest earned on Replacement Reserves, inflation, or a constant annual increase in Annual Funding of Replacement Reserves. The Component Method is a very conservative method and if the Analysis is updated regularly, adequate funding will be maintained without the need for adjustments.

Component Method Data - Years 1 through 30

| Year | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Beginning balance | \$59,000 | | | | | | | | | |
| Recommended annual funding | \$41,550 | \$24,440 | \$20,831 | \$19,967 | \$19,494 | \$17,924 | \$17,903 | \$17,741 | \$17,741 | \$17,741 |
| Interest on reserves | | | | | | | | | | |
| Expenditures | \$37,273 | \$23,000 | \$6,190 | \$4,934 | \$22,500 | \$7,495 | \$29,550 | | | |
| Year end balance | \$63,277 | \$64,717 | \$79,358 | \$94,391 | \$91,385 | \$101,814 | \$90,167 | \$107,908 | \$125,649 | \$143,390 |
| Cumulative Expenditures | \$37,273 | \$60,273 | \$66,463 | \$71,397 | \$93,897 | \$101,392 | \$130,942 | \$130,942 | \$130,942 | \$130,942 |
| Cumulative Receipts | \$100,550 | \$124,990 | \$145,821 | \$165,788 | \$185,282 | \$203,206 | \$221,109 | \$238,850 | \$256,591 | \$274,332 |
| Year | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 |
| Recommended annual funding | \$17,741 | \$17,229 | \$17,229 | \$17,219 | \$17,219 | \$17,219 | \$17,219 | \$17,076 | \$16,877 | \$16,753 |
| Interest on reserves | | | | | | | | | | |
| Expenditures | \$31,238 | \$23,000 | \$3,620 | | | \$7,495 | \$55,500 | \$23,340 | \$19,004 | \$76,400 |
| Year end balance | \$129,893 | \$124,122 | \$137,731 | \$154,950 | \$172,170 | \$181,894 | \$143,613 | \$137,349 | \$135,222 | \$75,575 |
| Cumulative Expenditures | \$162,180 | \$185,180 | \$188,800 | \$188,800 | \$188,800 | \$196,295 | \$251,795 | \$275,135 | \$294,139 | \$370,539 |
| Cumulative Receipts | \$292,073 | \$309,302 | \$326,531 | \$343,750 | \$360,970 | \$378,189 | \$395,408 | \$412,484 | \$429,361 | \$446,114 |
| Year | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 |
| Recommended annual funding | \$16,283 | \$16,283 | \$16,283 | \$16,271 | \$16,271 | \$16,271 | \$16,271 | \$16,271 | \$16,271 | \$16,271 |
| Interest on reserves | | | | | | | | | | |
| Expenditures | \$38,468 | \$26,230 | \$2,365 | | \$1,820 | \$7,495 | \$24,500 | \$1,800 | | |
| Year end balance | \$53,390 | \$43,443 | \$57,362 | \$73,632 | \$88,083 | \$96,858 | \$88,629 | \$103,099 | \$119,370 | \$135,640 |
| Cumulative Expenditures | \$409,007 | \$435,237 | \$437,602 | \$437,602 | \$439,422 | \$446,917 | \$471,417 | \$473,217 | \$473,217 | \$473,217 |
| Cumulative Receipts | \$462,397 | \$478,680 | \$494,964 | \$511,234 | \$527,505 | \$543,775 | \$560,046 | \$576,316 | \$592,587 | \$608,857 |

COMPONENT METHOD ACCOUNTING SUMMARY

This Hammetts Glen - Component Method Accounting Summary is an attachment to the Hammetts Glen - Replacement Reserve Study dated Revised November 12, 2018 and is for use by accounting and reserve professionals experienced in Association funding and accounting principles. This Summary consists of four reports, the 2019, 2020, and 2021 Component Method Category Funding Reports (3) and a Three-Year Replacement Funding Report.

- COMPONENT METHOD CATEGORY FUNDING REPORT, 2019, 2020, and 2021. Each of the 25 Projected Replacements listed in the Hammetts Glen Replacement Reserve Inventory has been assigned to one of 2 categories. The following information is summarized by category in each report:
 - Normal Economic Life and Remaining Economic Life of the Projected Replacements.
 - Cost of all Scheduled Replacements in each category.
 - Replacement Reserves on Deposit allocated to the category at the beginning and end of the report period.
 - Cost of Projected Replacements in the report period.
 - Recommended Replacement Reserve Funding allocated to the category during the report period as calculated by the Component Method.
- THREE-YEAR REPLACEMENT FUNDING REPORT. This report details the allocation of the \$59,000 Beginning Balance (at the start of the Study Year) and the \$86,821 of additional Replacement Reserve funding from 2019 to 2021 (as calculated in the Replacement Reserve Analysis) to each of the 25 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made using the Component Method as outlined in the Replacement Reserve Analysis. The calculated data includes:
 - Identification and estimated cost of each Projected Replacement schedule in years 2019 through 2021.
 - Allocation of the \$59,000 Beginning Balance to the Projected Replacements by the Component Method.
 - Allocation of the \$86,821 of additional Replacement Reserve Funding recommended in the Replacement Reserve Analysis in years 2019 through 2021, by the Component Method.

2019 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 25 Projected Replacements included in the Hammetts Glen Replacement Reserve Inventory has been assigned to one of the 2 categories listed in TABLE CM1 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- A Beginning Balance of \$59,000 as of the first day of the Study Year, January 1, 2019.
- Total reserve funding (including the Beginning Balance) of \$100,550 in the Study Year.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2019 being accomplished in 2019 at a cost of \$37,273.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

2019 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM1

| CATEGORY | NORMAL ECONOMIC LIFE | REMAINING ECONOMIC LIFE | ESTIMATED REPLACEMENT COST | 2019 BEGINNING BALANCE | 2019 RESERVE FUNDING | 2019 PROJECTED REPLACEMENTS | 2019 END OF YEAR BALANCE |
|-----------------|----------------------------|-------------------------------|----------------------------------|------------------------------|----------------------------|-----------------------------------|--------------------------------|
| SITE COMPONENTS | 5 to 30 years | 0 to 22 years | \$128,788 | \$33,667 | \$32,702 | \$37,273 | \$29,096 |
| SITE COMPONENTS | 15 to 30 years | 2 to 19 years | \$118,724 | \$25,333 | \$8,847 | | \$34,181 |

2020 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 25 Projected Replacements included in the Hammetts Glen Replacement Reserve Inventory has been assigned to one of the 2 categories listed in TABLE CM2 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$63,277 on January 1, 2020.
- Total reserve funding (including the Beginning Balance) of \$124,990 from 2019 through 2020.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2020 being accomplished in 2020 at a cost of \$23,000.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

2020 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM2

| CATEGORY | NORMAL ECONOMIC LIFE | REMAINING ECONOMIC LIFE | ESTIMATED REPLACEMENT COST | 2020 BEGINNING BALANCE | 2020 RESERVE FUNDING | 2020 PROJECTED REPLACEMENTS | 2020 END OF YEAR BALANCE |
|-----------------|----------------------------|-------------------------------|----------------------------------|------------------------------|----------------------------|-----------------------------------|--------------------------------|
| SITE COMPONENTS | 5 to 30 years | 0 to 21 years | \$128,788 | \$29,096 | \$15,593 | \$23,000 | \$21,689 |
| SITE COMPONENTS | 15 to 30 years | 1 to 18 years | \$118,724 | \$34,181 | \$8,847 | | \$43,028 |

2021 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 25 Projected Replacements included in the Hammetts Glen Replacement Reserve Inventory has been assigned to one of the 2 categories listed in TABLE CM3 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$64,717 on January 1, 2021.
- Total Replacement Reserve funding (including the Beginning Balance) of \$145,821 from 2019 to 2021.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2021 being accomplished in 2021 at a cost of \$6,190.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

2021 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM3

| CATEGORY | NORMAL ECONOMIC LIFE | REMAINING ECONOMIC LIFE | ESTIMATED REPLACEMENT COST | 2021 BEGINNING BALANCE | 2021 RESERVE FUNDING | 2021 PROJECTED REPLACEMENTS | 2021 END OF YEAR BALANCE |
|-----------------|----------------------------|-------------------------------|----------------------------------|------------------------------|----------------------------|-----------------------------------|--------------------------------|
| SITE COMPONENTS | 5 to 30 years | 3 to 20 years | \$128,788 | \$21,689 | \$11,983 | | \$33,673 |
| SITE COMPONENTS | 15 to 30 years | 0 to 17 years | \$118,724 | \$43,028 | \$8,847 | \$6,190 | \$45,685 |

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CM4 below details the allocation of the \$59,000 Beginning Balance, as reported by the Association and the \$86,821 of Replacement Reserve Funding calculated by the Cash Flow Method from 2019 to 2021, to the 25 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made by Chronological Allocation, a method developed by Miller Dodson Associates, Inc., and outlined on Page CF1. The accuracy of the allocations is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$59,000 on January 1, 2019.
- Replacement Reserves on Deposit totaling \$63,277 on January 1, 2020.
- Replacement Reserves on Deposit totaling \$64,717 on January 1, 2021.
- Total Replacement Reserve funding (including the Beginning Balance) of \$145,821 from 2019 to 2021.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory from 2019 to 2021 being accomplished as scheduled in the Replacement Reserve Inventory at a cost of \$66,463.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates, Inc., to arrange for an update of the Replacement Reserve Study.

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CM4

| Item # | Description of Projected Replacement | Estimated Replacement Costs | Allocation of Beginning Balance | 2019 Reserve Funding | 2019 Projected Replacements | 2019 End of Year Balance | 2020 Reserve Funding | 2020 Projected Replacements | 2020 End of Year Balance | 2021 Reserve Funding | 2021 Projected Replacements | 2021 End of Year Balance |
|-----------------|--------------------------------------|-----------------------------|---------------------------------|----------------------|-----------------------------|--------------------------|----------------------|-----------------------------|--------------------------|----------------------|-----------------------------|--------------------------|
| SITE COMPONENTS | | | | | | | | | | | | |
| 1 | Asphalt path, overlay | 31,155 | 14,856 | 16,299 | (31,155) | | 1,558 | | 1,558 | 1,558 | | 3,116 |
| 2 | Asphalt path, seal coat | 3,015 | | 503 | | 503 | 503 | | 1,005 | 503 | | 1,508 |
| 3 | Concrete flatwork (3%) | 1,820 | 868 | 952 | (1,820) | | 303 | | 303 | 303 | | 607 |
| 4 | Fence, metal, pond perimeter | 23,925 | 5,134 | 1,708 | | 6,842 | 1,708 | | 8,550 | 1,708 | | 10,259 |
| 5 | Fence gate, pond | 480 | 92 | 65 | | 156 | 65 | | 221 | 65 | | 286 |
| 6 | Entrance monument, (10% repointing) | 3,298 | 1,573 | 1,725 | (3,298) | | 330 | | 330 | 330 | | 660 |
| 7 | Sign & post, street | 1,140 | 127 | 44 | | 171 | 44 | | 215 | 44 | | 259 |
| 8 | Sign & post, other, stop sign | 1,225 | 136 | 47 | | 184 | 47 | | 231 | 47 | | 278 |
| 9 | Irrigation, (allowance) | 3,000 | 572 | 405 | | 977 | 405 | | 1,381 | 405 | | 1,786 |
| 10 | Landscape lighting | 3,230 | 821 | 344 | | 1,165 | 344 | | 1,510 | 344 | | 1,854 |
| 11 | Landscaping (allowance) | 23,000 | 6,580 | 8,210 | | 14,790 | 8,210 | (23,000) | 5,423 | 4,600 | | 4,600 |
| 12 | Storm water pond dredging | 30,000 | 2,146 | 1,638 | | 3,784 | 1,638 | | 5,423 | 1,638 | | 7,061 |
| 13 | Pond aeration (allowance) | 1,000 | 477 | 523 | (1,000) | | 200 | | 200 | 200 | | 400 |
| 14 | Storm water management (allowance) | 1,500 | 215 | 184 | | 398 | 184 | | 582 | 184 | | 765 |
| 15 | Entrance monument, wood signage | 1,000 | 72 | 55 | | 126 | 55 | | 181 | 55 | | 235 |
| SITE COMPONENTS | | | | | | | | | | | | |
| 16 | B1-Wood ped. bridge, PTL structure | 17,150 | 3,271 | 771 | | 4,042 | 771 | | 4,813 | 771 | | 5,584 |
| 17 | B1-Wood PTL decking | 3,850 | 1,469 | 794 | | 2,262 | 794 | | 3,056 | 794 | (3,850) | |
| 18 | B1-Wood PTL railing | 2,340 | 893 | 482 | | 1,375 | 482 | | 1,858 | 482 | (2,340) | |
| 19 | B2-Wood ped. bridge, PTL structure | 12,250 | 2,142 | 532 | | 2,674 | 532 | | 3,206 | 532 | | 3,738 |
| 20 | B2-Wood PTL decking | 2,750 | 962 | 447 | | 1,409 | 447 | | 1,856 | 447 | | 2,303 |
| 21 | B2-Wood PTL railing | 2,184 | 764 | 355 | | 1,119 | 355 | | 1,474 | 355 | | 1,829 |
| 22 | B3-Wood ped. bridge, PTL structure | 53,900 | 8,567 | 2,267 | | 10,834 | 2,267 | | 13,100 | 2,267 | | 15,367 |
| 23 | B3-Wood PTL decking | 12,100 | 3,846 | 1,651 | | 5,497 | 1,651 | | 7,148 | 1,651 | | 8,799 |
| 24 | B3-Wood PTL railing | 10,400 | 3,306 | 1,419 | | 4,725 | 1,419 | | 6,144 | 1,419 | | 7,562 |
| 25 | Fence, timber | 1,800 | 114 | 130 | | 244 | 130 | | 374 | 130 | | 503 |

1. COMMON INTEREST DEVELOPMENTS - AN OVERVIEW

Over the past 40 years, the responsibility for community facilities and infrastructure around many of our homes has shifted from the local government to Community Associations. Thirty years ago, a typical new town house abutted a public street on the front and a public alley on the rear. Open space was provided by a nearby public park and recreational facilities were purchased ala carte from privately owned country clubs, swim clubs, tennis clubs, and gymnasiums. Today, 60% of all new residential construction, i.e. townhouses, single-family homes, condominiums, and cooperatives, is in Common Interest Developments (CID). In a CID, a homeowner is bound to a Community Association that owns, maintains, and is responsible for periodic replacements of various components that may include the roads, curbs, sidewalks, playgrounds, streetlights, recreational facilities, and other community facilities and infrastructure.

The growth of Community Associations has been explosive. In 1965, there were only 500 Community Associations in the United States. According to the 1990 U.S. Census, there were 130,000 Community Associations. Community Associations Institute (CAI), a national trade association, estimates there were more than 200,000 Community Associations in the year 2000, and that the number of Community Associations will continue to multiply.

The shift of responsibility for billions of dollars of community facilities and infrastructure from the local government and private sector to Community Associations has generated new and unanticipated problems. Although Community Associations have succeeded in solving many short-term problems, many Associations have failed to properly plan for the tremendous expenses of replacing community facilities and infrastructure components. When inadequate replacement reserve funding results in less than timely replacements of failing components, home owners are exposed to the burden of special assessments, major increases in Association fees, and a decline in property values.

2. REPLACEMENT RESERVE STUDY

The purpose of a Replacement Reserve Study is to provide the Association with an inventory of the common community facilities and infrastructure components that require periodic replacement, a general view of the condition of these components, and an effective financial plan to fund projected periodic replacements. The Replacement Reserve Study consists of the following:

- **Replacement Reserve Study Introduction.** The introduction provides a description of the property, reviews the intent of the Replacement Reserve Study, and lists documents and site evaluations upon which the Replacement Reserve Study is based.
- **Section A Replacement Reserve Analysis.** Many components owned by the Association have a limited life and require periodic replacement. Therefore, it is essential the Association have a financial plan that provides funding for the timely replacement of these components in order to protect the safety, appearance, and value of the community. In conformance with American Institute of Certified Public Accountant guidelines, a Replacement Reserve Analysis evaluates the current funding of Replacement Reserves as reported by the Association and recommends annual funding of Replacement Reserves by two generally accepted accounting methods; the Cash Flow Method and the Component Method. Miller - Dodson provides a replacement reserve recommendation based on the Cash Flow Method in Section A, and the Component Method in the Appendix of the report.
- **Section B Replacement Reserve Inventory.** The Replacement Reserve Inventory lists the commonly owned components within the community that require periodic replacement using funding from Replacement Reserves. The Replacement Reserve Inventory also provides information about components excluded from the Replacement Reserve Inventory whose replacement is not scheduled for funding from Replacement Reserves.

Replacement Reserve Inventory includes estimates of the normal economic life and the remaining economic life for those components whose replacement is scheduled for funding from Replacement Reserves.

- **Section C Projected Annual Replacements.** The Calendar of Projected Annual Replacements provides a year-by-year listing of the Projected Replacements based on the data in the Replacement Reserve Inventory.
- **Section D Condition Assessment.** Several of the items listed in the Replacement Reserve Inventory are discussed in more detail. The Condition Assessment includes a narrative and photographs that document conditions at the property observed during our visual evaluation.
- **The Appendix is provided as an attachment to the Replacement Reserve Study.** Additional attachments may include supplemental photographs to document conditions at the property and additional information specific to the property cited in the Conditions Assessment (i.e. Consumer Product Safety Commission, Handbook for Public Playground Safety, information on segmental retaining walls, manufacturer recommendations for asphalt shingles or siding, etc). The Appendix also includes the Accounting Summary for the Cash Flow Method and the Component Method.

3. METHODS OF ANALYSIS

The Replacement Reserve industry generally recognizes two different methods of accounting for Replacement Reserve Analysis. Due to the difference in accounting methodologies, these methods lead to different calculated values for the Minimum Annual Contribution to the Reserves. The results of both methods are presented in this report. The Association should obtain the advice of its accounting professional as to which method is more appropriate for the Association. The two methods are:

- **Cash Flow Method.** The Cash Flow Method is sometimes referred to as the "Pooling Method." It calculates the minimum constant annual contribution to reserves (Minimum Annual Deposit) required to meet projected expenditures without allowing total reserves on hand to fall below the specified minimum level in any year.

First, the Minimum Recommended Reserve Level to be Held on Account is determined based on the age, condition, and replacement cost of the individual components. The mathematical model then allocates the estimated replacement costs to the future years in which they are projected to occur. Based on these expenditures, it then calculates the minimum constant yearly contribution (Minimum Annual Deposit) to the reserves necessary to keep the reserve balance at the end of each year above the Minimum Recommended Reserve Level to be Held on Account. The Cash Flow Analysis assumes that the Association will have authority to use all of the reserves on hand for replacements as the need occurs. This method usually results in a Minimum Annual Deposit that is less than that arrived at by the Component Method.

- **Component Method.** This method is a time tested mathematical model developed by HUD in the early 1980s, but has been generally relegated to a few States that require it by law. For the vast majority of Miller - Dodson's clients, this method is not used.

The Component Method treats each item in the replacement schedule as an individual line item budget. Generally, the Minimum Annual Contribution to Reserves is higher when calculated by the Component Method. The mathematical model for this method works as follows:

First, the total Current Objective is calculated, which is the reserve amount that would have accumulated had all of the items on the schedule been funded from initial construction at their current replacement costs. Next, the Reserves Currently on Deposit (as reported by the Association) are distributed to the components in the schedule in proportion to the Current Objective. The Minimum Annual Deposit for each component is equal to the Estimated Replacement Cost, minus the Reserves on Hand, divided by the years of life remaining.

4. REPLACEMENT RESERVE STUDY DATA

- **Identification of Reserve Components.** The Reserve Analyst has only two methods of identifying Reserve Components: (1) information provided by the Association and (2) observations made at the site. It is important that the Reserve Analyst be provided with all available information detailing the components owned by the Association. It is our policy to request such information prior to bidding on a project and to meet with the individuals responsible for maintaining the community after acceptance of our proposal. After completion of the Study, the Study should be reviewed by the Board of Directors, individuals responsible for maintaining the community, and the Association's accounting professionals. We are dependent upon the Association for correct information, documentation, and drawings.
- **Unit Costs.** Unit costs are developed using nationally published standards and estimating guides and are adjusted by state or region. In some instances, recent data received in the course of our work is used to modify these figures.

Contractor proposals or actual cost experience may be available as part of the Association records. This is useful information, which should be incorporated into your report. Please bring any such available data to our attention, preferably before the report is commenced.

- **Replacement vs. Repair and Maintenance.** A Replacement Reserve Study addresses the required funding for Capital Replacement Expenditures. This should not be confused with operational costs or cost of repairs or maintenance.

5. DEFINITIONS

Adjusted Cash Flow Analysis. Cash flow analysis adjusted to take into account annual cost increases due to inflation and interest earned on invested reserves. In this method, the annual contribution is assumed to grow annually at the inflation rate.

Annual Deposit if Reserves Were Fully Funded. Shown on the Summary Sheet A1 in the Component Method summary, this would be the amount of the Annual Deposit needed if the Reserves Currently on Deposit were equal to the Total Current Objective.

Cash Flow Analysis. See Cash Flow Method, above.

Component Analysis. See Component Method, above.

Contingency. An allowance for unexpected requirements. Roughly the same as the Minimum Recommended Reserve Level to be Held on Account used in the Cash Flow Method of analysis.

Critical Year. In the Cash Flow Method, a year in which the reserves on hand are projected to fall to the established minimum level. See Minimum Recommended Reserve Level to be Held on Account.

Current Objective. This is the reserve amount that would have accumulated had the item been funded from initial construction at its current replacement cost. It is equal to the estimated replacement cost divided by the estimated economic life, times the number of years expended (the difference between the Estimated Economic Life and the Estimated Life Left). The Total Current Objective can be thought of as the amount of reserves the Association should now have on hand based on the sum of all of the Current Objectives.

Cyclic Replacement Item. A component item that typically begins to fail after an initial period (Estimated Initial Replacement), but which will be replaced in increments over a number of years (the Estimated Replacement Cycle). The Reserve Analysis program divides the number of years in the Estimated Replacement Cycle into five equal increments. It then allocates the Estimated Replacement Cost equally over those five increments. (As distinguished from Normal Replacement Items, see below)

Estimated Economic Life. Used in the Normal Replacement Schedules. This represents the industry average number of years that a new item should be expected to last until it has to be replaced. This figure is sometimes modified by climate, region, or original construction conditions.

Estimated Economic Life Left. Used in the Normal Replacement Schedules. Number of years until the item is expected to need replacement. Normally, this number would be considered to be the difference between the Estimated Economic Life and the age of the item. However, this number must be modified to reflect maintenance practice, climate, original construction and quality, or other conditions. For the purpose of this report, this number is determined by the Reserve Analyst based on the present condition of the item relative to the actual age.

Estimated Initial Replacement. For a Cyclic Replacement Item (see above), the number of years until the replacement cycle is expected to begin.

Estimated Replacement Cycle. For a Cyclic Replacement Item, the number of years over which the remainder of the component's replacement occurs.

Minimum Annual Deposit. Shown on the Summary Sheet A1. The calculated requirement for annual contribution to reserves as calculated by the Cash Flow Method (see above).

Minimum Deposit in the Study Year. Shown on the Summary Sheet A1. The calculated requirement for contribution to reserves in the study year as calculated by the Component Method (see above).

Minimum Recommended Reserve Level to be Held on Account. Shown on the Summary Sheet A1, this number is used in the Cash Flow Method only. This is the prescribed level below which the reserves will not be allowed to fall in any year. This amount is determined based on the age, condition, and replacement cost of the individual components. This number is normally given as a percentage of the total Estimated Replacement Cost of all reserve components.

Normal Replacement Item. A component of the property that, after an expected economic life, is replaced in its entirety. (As distinguished from Cyclic Replacement Items, see above.)

Normal Replacement Schedules. The list of Normal Replacement Items by category or location. These items appear on pages designated.

Number of Years of the Study. The numbers of years into the future for which expenditures are projected and reserve levels calculated. This number should be large enough to include the projected replacement of every item on the schedule, at least once. This study covers a 40-year period.

One Time Deposit Required to Fully Fund Reserves. Shown on the Summary Sheet A1 in the Component Method summary, this is the difference between the Total Current Objective and the Reserves Currently on Deposit.

Reserves Currently on Deposit. Shown on the Summary Sheet A1, this is the amount of accumulated reserves as reported by the Association in the current year.

Reserves on Hand. Shown in the Cyclic Replacement and Normal Replacement Schedules, this is the amount of reserves allocated to each component item in the Cyclic or Normal Replacement schedules. This figure is based on the ratio of Reserves Currently on Deposit divided by the total Current Objective.

Replacement Reserve Study. An analysis of all of the components of the common property of the Association for which a need for replacement should be anticipated within the economic life of the property as a whole. The analysis involves estimation for each component of its estimated Replacement Cost, Estimated Economic Life, and Estimated Life Left. The objective of the study is to calculate a recommended annual contribution to the Association's Replacement Reserve Fund.

Total Replacement Cost. Shown on the Summary Sheet A1, this is total of the Estimated Replacement Costs for all items on the schedule if they were to be replaced once.

Unit Replacement Cost. Estimated replacement cost for a single unit of a given item on the schedule.

Unit (of Measure). Non-standard abbreviations are defined on the page of the Replacement Reserve Inventory where the item appears. The following standard abbreviations are used in this report:

EA: each FT: feet LS: lump sum PR: pair SF: square feet SY: square yard

What is a Reserve Study?
Who are we?



<https://youtu.be/m4BcOE6q3Aw>

What kind of property uses a Reserve Study?
Who are our clients?



<https://youtu.be/40SodajTW1g>

Who conducts a Reserve Study?
Reserve Specialist (RS) what does this mean?



<https://youtu.be/pYSMZ013VjQ>

When should a Reserve Study be updated?
What are the different types of Reserve Studies?



<https://youtu.be/Qx8WHB9Cgnc>

What is in a Reserve Study and what is out?
Improvement vs Component, is there a difference?



<https://youtu.be/ZfBoAEhtf3E>

What is my role as a Community Manager?
Will the report help me explain Reserves to my clients?



<https://youtu.be/1J2h7FIU3qw>

What is my role as a Board Member?
Will a Reserve Study meet my community's needs?



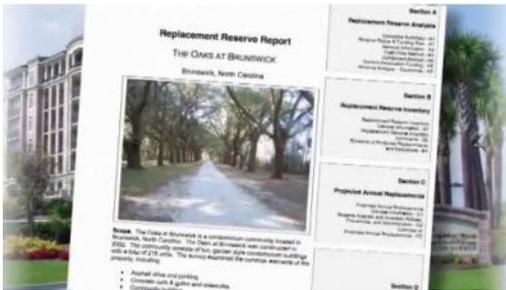
<https://youtu.be/aARD1B1Oa3o>

Community dues, how can a Reserve Study help?
Will a study help keep my property competitive?



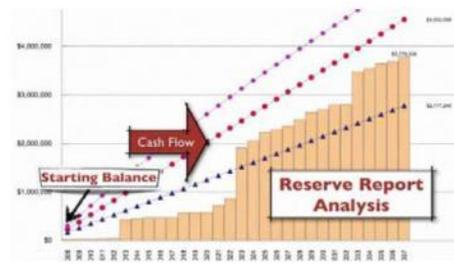
<https://youtu.be/diZfM1lyJYU>

How do I read the report?
Will I have a say in what the report contains?



<https://youtu.be/qCeVJhFf9ag>

Where do the numbers come from?
Cumulative expenditures and funding, what?



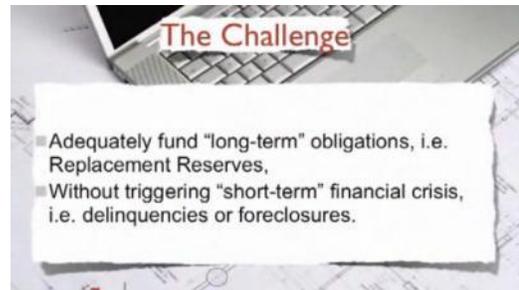
<https://youtu.be/SePdwVDvHWI>

How are interest and inflation addressed?
What should we look at when considering inflation?



<https://youtu.be/W8CDLwRlv68>

A community needs more help, where do we go?
What is a Strategic Funding Plan?



<https://youtu.be/hIxV9X1tlcA>