

# REPLACEMENT RESERVE REPORT FY 2019 PINE CREEK VILLAGE ASSOCIATION



REPLACEMENT RESERVE REPORT FY 2019  
PINE CREEK VILLAGE ASSOCIATION

Community Management by:

**HAMMERSMITH MANAGEMENT, INC.**

Ms. Jessica Walker

1155 Kelly Johnson Blvd, Suite 495  
Colorado Springs, Colorado 80920  
(719) 389-0700  
jwalker@ehammersmith.com

Consultant:

**millerdodson**  
Capital Reserve Consultants

Annapolis, MD 21401  
410.268.0479  
800.850.2835

[www.mdareserves.com](http://www.mdareserves.com)

**millerdodson**  
Capital Reserve Consultants

INTENTIONALLY LEFT BLANK

# REPLACEMENT RESERVE REPORT

## PINE CREEK VILLAGE ASSOCIATION

COLORADO SPRINGS, COLORADO  
June 15, 2019  
Revised August 26, 2019



**Description.** Pine Creek Village Association is a single-family master plan community located in Colorado Springs, Colorado. Constructed in 1998, the community consists of 1424 units. The survey examined the common elements of the property, including:

- Shared asphalt driveways.
- Concrete sidewalks, curb, and gutter.
- Stucco walls, metal fencing, and wood fences.
- Mailbox kiosks.
- Stucco and stone entry monuments.

**Level of Service.** This study has been performed as a Level 2 Update with Site Visit/On-Site Review as defined under the National Reserve Study Standards that have been adopted by the Community Associations Institute. As such, the component inventory is based on the study that was performed in 2001, 2006, and 2015 by Miller - Dodson Associates. The inventory was adjusted to reflect changes as provided by the Community Manager or adjustments were made based on the site visit and visual inspection performed by the Analyst. The included fund status and funding plan have been developed from analysis of the adjusted inventory.

**Section A**  
**Main**

**Section B**  
**PCV001**

**Section C**  
**PCV002**

**Section D**  
**PCV003**

### Condition Assessment and Appendix

Condition Assessment  
Photo Log

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](http://mdareserves.com).

**Purpose.** The purpose of this Replacement Reserve Study is to provide Pine Creek Village Association (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 15, 2019 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 in the main account as of January 1, 2019 are reported to be \$482,247. The planned contribution for the fiscal year is \$66,680. The driveway account for Willow Glen (PCV001) deposits reported as \$15,283 with an annual contribution of \$1,350. The driveway account for Glen Arbor (PCV002) deposits reported as \$12,810 with an annual contribution of \$1,081. Finally, the driveway account for Sage Hill (PCV003) deposits reported as \$14,602 with an annual contribution of \$1,065.



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. Jessica Walker who provided very helpful insight into the current operations of the property.

**Analyst's Credentials. Analyst's Credentials.** Mr. Rick McKittrick holds a Bachelors Degree in Engineering from the University of Connecticut and a Masters Degree in Engineering from Boston University. Mr. McKittrick is a Registered Professional Engineer in the State of Ohio. He has managed the maintenance, repair, design, and construction of facilities and community infrastructure in the U.S. and overseas for private companies and government agencies. He is currently a Reserve Specialist for Miller - Dodson Associates.

Respectfully Submitted,

**millerdodson**  
Capital Reserve Consultants

*Rick F. McKittrick*

Rick F. McKittrick, RS, PE, CEM, DGCP  
Reserve Specialist

INTENTIONALLY LEFT BLANK

## EXECUTIVE SUMMARY

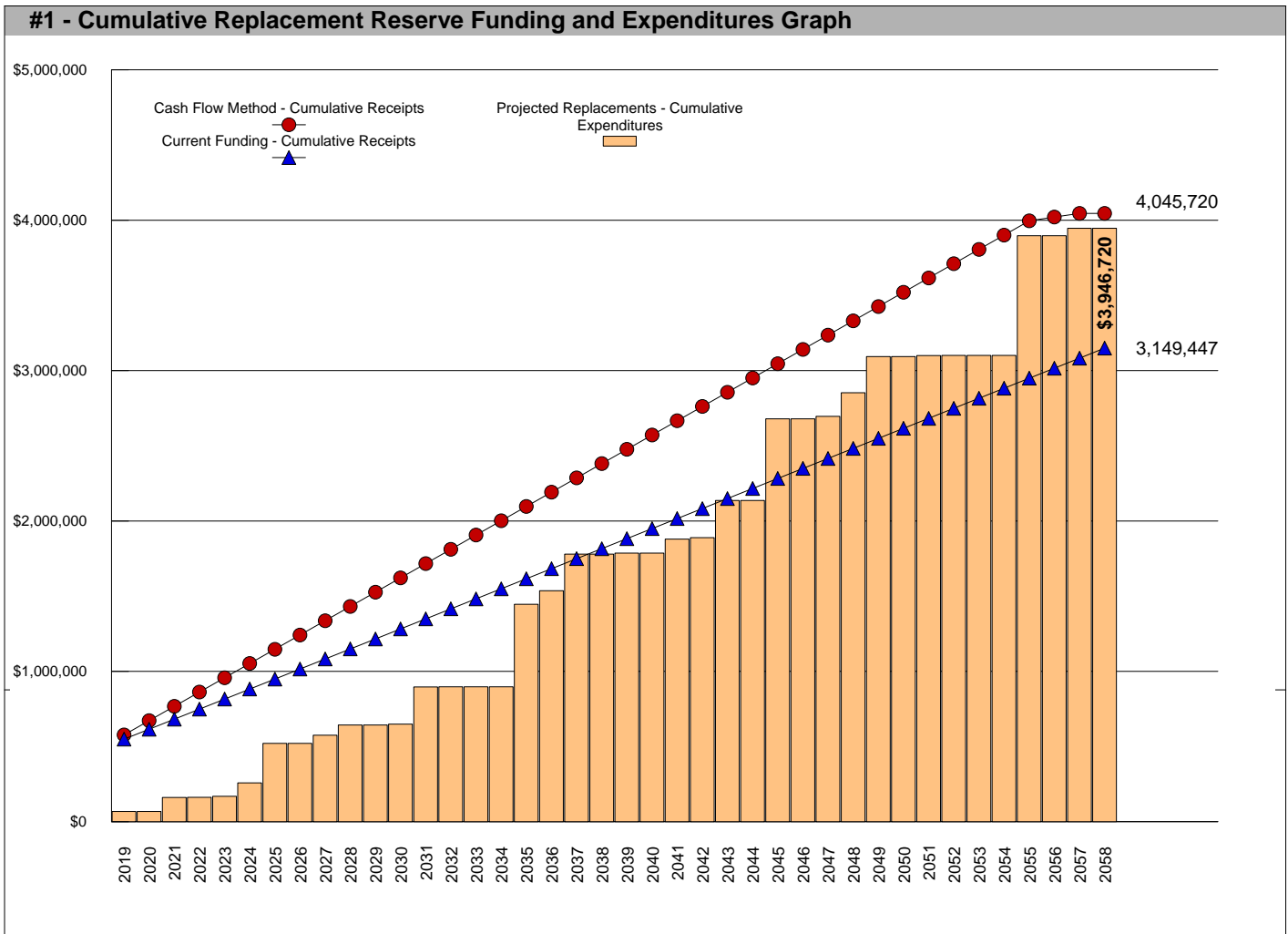
The Pine Creek Main Replacement Reserve Analysis uses the Cash Flow Method (CFM) to calculate Replacement Reserve funding for the periodic replacement of the 39 Projected Replacements identified in the Replacement Reserve Inventory.

**\$94,962** RECOMMENDED REPLACEMENT RESERVE FUNDING FOR THE STUDY YEAR, 2019

\$5.56 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.

Pine Creek Main reports a Starting Balance of \$482,247 and Annual Funding totaling \$66,680. Current funding is inadequate to fund the \$3,946,720 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 \$264,714 making the reserve account 182.2% funded. See the Appendix for more information on this method.

**REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION**

The Pine Creek Main 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.

**\$482,247 | STARTING BALANCE**

The Association reports Replacement Reserves on Deposit totaling \$482,247 at the start of the Study Year.

**Level Two | LEVEL OF SERVICE**

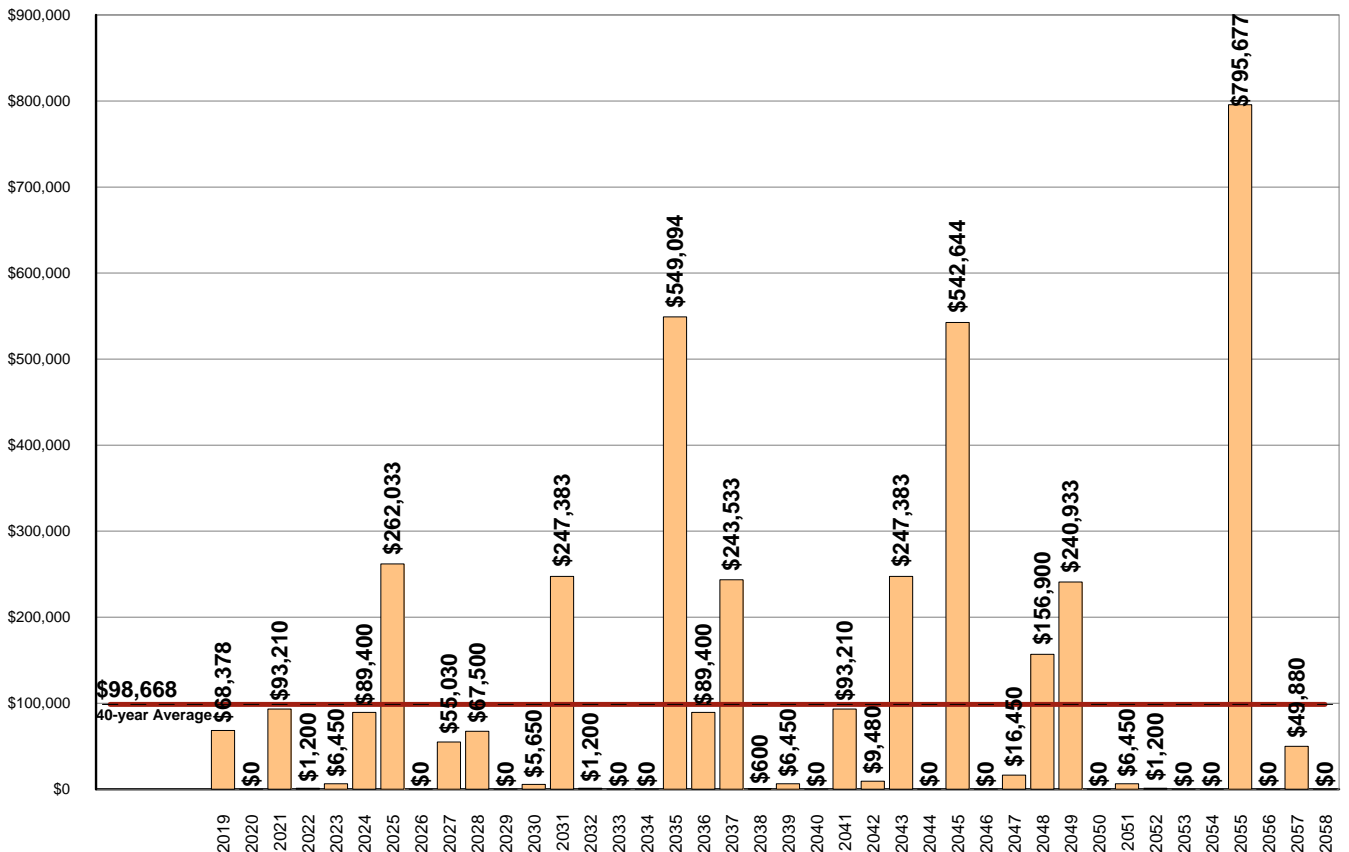
The Replacement Reserve Inventory has been developed in compliance with the National Reserve Study Standards for a Level Two Study, as defined by the Community Associations Institute (CAI).

**\$3,946,720 | REPLACEMENT RESERVE INVENTORY - PROJECTED REPLACEMENTS**

The Pine Creek Main Replacement Reserve Inventory identifies 39 items that will require periodic replacement, that are to be funded from Replacement Reserves. We estimate the cost of these replacements will be \$3,946,720 over the 40-year Study Period. The Projected Replacements are divided into 11 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 \$98,668. 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 \$3,946,720 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.

<b>#3 - Table of Annual Expenditures and Current Funding Data - Years 1 through 40</b>										
Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Starting Balance	\$482,247									
Projected Replacements	(\$68,378)		(\$93,210)	(\$1,200)	(\$6,450)	(\$89,400)	(\$262,033)		(\$55,030)	(\$67,500)
Annual Deposit	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680
End of Year Balance	\$480,549	\$547,229	\$520,699	\$586,179	\$646,409	\$623,689	\$428,336	\$495,016	\$506,666	\$505,846
Cumulative Expenditures	(\$68,378)	(\$68,378)	(\$161,588)	(\$162,788)	(\$169,238)	(\$258,638)	(\$520,672)	(\$520,672)	(\$575,702)	(\$643,202)
Cumulative Receipts	\$548,927	\$615,607	\$682,287	\$748,967	\$815,647	\$882,327	\$949,007	\$1,015,687	\$1,082,367	\$1,149,047
Year	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Projected Replacements		(\$5,650)	(\$247,383)	(\$1,200)			(\$549,094)	(\$89,400)	(\$243,533)	(\$600)
Annual Deposit	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680
End of Year Balance	\$572,526	\$633,556	\$452,852	\$518,332	\$585,012	\$651,692	\$169,278	\$146,558	(\$30,295)	\$35,785
Cumulative Expenditures	(\$643,202)	(\$648,852)	(\$896,235)	(\$897,435)	(\$897,435)	(\$897,435)	(\$1,446,529)	(\$1,535,929)	(\$1,779,462)	(\$1,780,062)
Cumulative Receipts	\$1,215,727	\$1,282,407	\$1,349,087	\$1,415,767	\$1,482,447	\$1,549,127	\$1,615,807	\$1,682,487	\$1,749,167	\$1,815,847
Year	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Projected Replacements	(\$6,450)		(\$93,210)	(\$9,480)	(\$247,383)		(\$542,644)		(\$16,450)	(\$156,900)
Annual Deposit	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680
End of Year Balance	\$96,015	\$162,695	\$136,165	\$193,365	\$12,662	\$79,342	(\$396,622)	(\$329,942)	(\$279,712)	(\$369,932)
Cumulative Expenditures	(\$1,786,512)	(\$1,786,512)	(\$1,879,722)	(\$1,889,202)	(\$2,136,586)	(\$2,136,586)	(\$2,679,230)	(\$2,679,230)	(\$2,695,680)	(\$2,852,580)
Cumulative Receipts	\$1,882,527	\$1,949,207	\$2,015,887	\$2,082,567	\$2,149,247	\$2,215,927	\$2,282,607	\$2,349,287	\$2,415,967	\$2,482,647
Year	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058
Projected Replacements	(\$240,933)		(\$6,450)	(\$1,200)			(\$795,677)		(\$49,880)	
Annual Deposit	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680	\$66,680
End of Year Balance	(\$544,186)	(\$477,506)	(\$417,276)	(\$351,796)	(\$285,116)	(\$218,436)	(\$947,433)	(\$880,753)	(\$863,953)	(\$797,273)
Cumulative Expenditures	(\$3,093,513)	(\$3,093,513)	(\$3,099,963)	(\$3,101,163)	(\$3,101,163)	(\$3,101,163)	(\$3,896,840)	(\$3,896,840)	(\$3,946,720)	(\$3,946,720)
Cumulative Receipts	\$2,549,327	\$2,616,007	\$2,682,687	\$2,749,367	\$2,816,047	\$2,882,727	\$2,949,407	\$3,016,087	\$3,082,767	\$3,149,447

### EVALUATION OF CURRENT FUNDING

The evaluation of Current Funding (Starting Balance of \$482,247 & annual funding of \$66,680), 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 39 Projected Replacements identified in the Replacement Reserve Inventory and that the Association will continue Annual Funding of \$66,680 throughout the 40-year Study Period.

Annual Funding of \$66,680 is approximately 70 percent of the \$94,962 recommended Annual Funding calculated by the Cash Flow Method for 2019, the Study Year.

Evaluation of the 39 Projected Replacements calculates an average annual expenditure over the next 40 years of \$98,668. Annual funding of \$66,680 is 68 percent of the average annual expenditure.

Our calculations identify funding shortfalls in 15 years of the Study Period with the initial shortfall in 2037. The largest shortfall, \$-947,433, 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 \$3,946,720 of Projected Replacements scheduled in the Replacement Reserve Inventory over the Study Period.

### CASH FLOW METHOD FUNDING

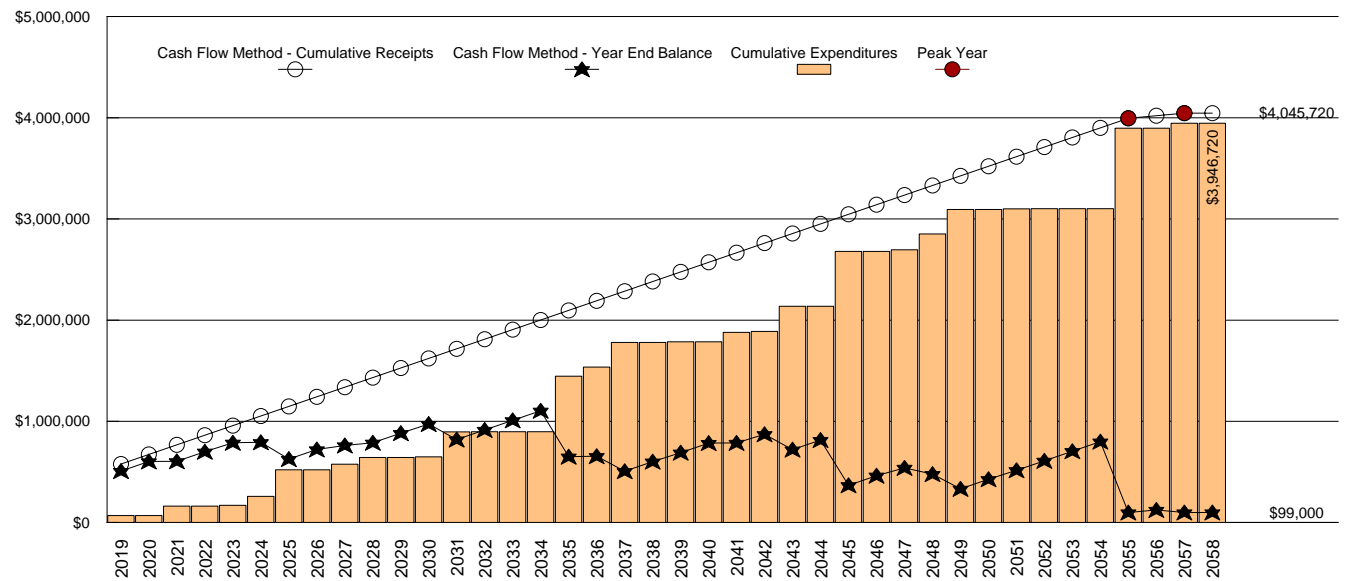
**\$94,962** RECOMMENDED REPLACEMENT RESERVE FUNDING FOR 2019

\$5.56 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 2055 with Replacement Reserves on Deposit dropping to the Minimum Balance after the completion of \$3,896,840 of replacements from 2019 to 2055. Recommended funding declines from \$94,962 in 2055 to \$24,940 in 2056. Peak Years are identified in Chart 4 and Table 5.
- **Minimum Balance.** The calculations assume a Minimum Balance of \$99,000 in Replacement Reserves. This is approx. 12 months of average expenditures based on the \$98,668, 40-year average annual expenditure.
- **Cash Flow Method Study Period.** Cash Flow Method calculates funding for \$3,946,720 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	\$482,247									
Projected Replacements	(\$68,378)		(\$93,210)	(\$1,200)	(\$6,450)	(\$89,400)	(\$262,033)		(\$55,030)	(\$67,500)
Annual Deposit	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962
End of Year Balance	\$508,831	\$603,793	\$605,545	\$699,307	\$787,819	\$793,381	\$626,309	\$721,271	\$761,203	\$788,665
Cumulative Expenditures	\$68,378	\$68,378	\$161,588	\$162,788	\$169,238	\$258,638	\$520,672	\$520,672	\$575,702	\$643,202
Cumulative Receipts	\$577,209	\$672,171	\$767,133	\$862,095	\$957,057	\$1,052,019	\$1,146,981	\$1,241,943	\$1,336,905	\$1,431,867
Year	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Projected Replacements	(\$6,450)	(\$5,650)	(\$247,383)	(\$1,200)			(\$549,094)	(\$89,400)	(\$243,533)	(\$600)
Annual Deposit	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962
End of Year Balance	\$883,627	\$972,939	\$820,518	\$914,280	\$1,009,242	\$1,104,204	\$650,072	\$655,634	\$507,062	\$601,424
Cumulative Expenditures	(\$643,202)	(\$648,852)	(\$896,235)	(\$897,435)	(\$897,435)	(\$897,435)	(\$1,446,529)	(\$1,535,929)	(\$1,779,462)	(\$1,780,062)
Cumulative Receipts	\$1,526,829	\$1,621,791	\$1,716,753	\$1,811,715	\$1,906,677	\$2,001,639	\$2,096,601	\$2,191,563	\$2,286,525	\$2,381,487
Year	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Projected Replacements	(\$6,450)		(\$93,210)	(\$9,480)	(\$247,383)		(\$542,644)		(\$16,450)	(\$156,900)
Annual Deposit	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962
End of Year Balance	\$689,936	\$784,898	\$786,650	\$872,132	\$719,711	\$814,673	\$366,991	\$461,953	\$540,465	\$478,527
Cumulative Expenditures	(\$1,786,512)	(\$1,786,512)	(\$1,879,722)	(\$1,889,202)	(\$2,136,586)	(\$2,136,586)	(\$2,679,230)	(\$2,679,230)	(\$2,695,680)	(\$2,852,580)
Cumulative Receipts	\$2,476,449	\$2,571,411	\$2,666,373	\$2,761,335	\$2,856,297	\$2,951,259	\$3,046,221	\$3,141,183	\$3,236,144	\$3,331,106
Year	2049	2050	2051	2052	2053	2054	1st Peak - 2055	2056	2nd Peak - 2057	2058
Projected Replacements	(\$240,933)		(\$6,450)	(\$1,200)			(\$795,677)		(\$49,880)	
Annual Deposit	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962	\$94,962	\$24,940	\$24,940	\$99,000
End of Year Balance	\$332,555	\$427,517	\$516,029	\$609,791	\$704,753	\$799,715	\$99,000	\$123,940	\$99,000	\$99,000
Cumulative Expenditures	(\$3,093,513)	(\$3,093,513)	(\$3,099,963)	(\$3,101,163)	(\$3,101,163)	(\$3,101,163)	(\$3,896,840)	(\$3,896,840)	(\$3,946,720)	(\$3,946,720)
Cumulative Receipts	\$3,426,068	\$3,521,030	\$3,615,992	\$3,710,954	\$3,805,916	\$3,900,878	\$3,995,840	\$4,020,780	\$4,045,720	\$4,045,720

## 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.

### **\$94,962** 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.

### **\$97,436** 2020 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2020 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$508,831 on January 1, 2020.
- All 2019 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than \$68,378.
- Construction Cost Inflation of 2.30 percent in 2019.

The \$97,436 inflation adjusted funding in 2020 is a 2.60 percent increase over the non-inflation adjusted 2020 funding of \$94,962.

### **\$100,295** 2021 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2021 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$606,267 on January 1, 2021.
- No Expenditures from Replacement Reserves in 2020.

- Construction Cost Inflation of 2.30 percent in 2020.

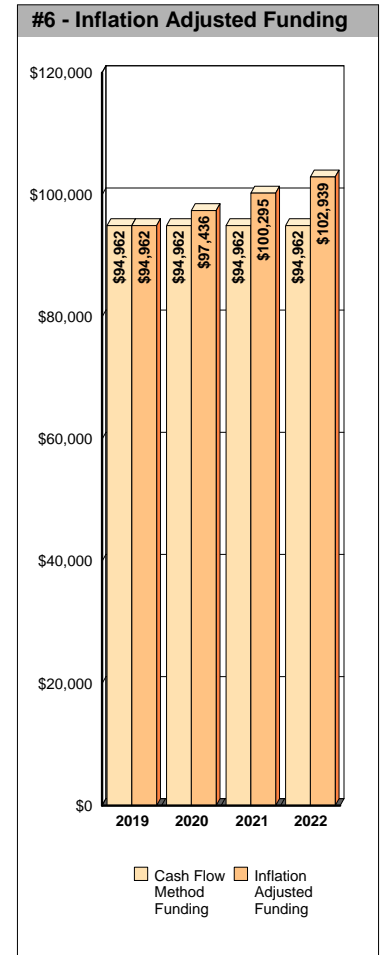
The \$100,295 inflation adjusted funding in 2021 is a 5.62 percent increase over the non-inflation adjusted 2021 funding of \$94,962.

### **\$102,939** 2022 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2022 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$609,015 on January 1, 2022.
- All 2021 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than \$97,547.
- Construction Cost Inflation of 2.30 percent in 2021.

The \$102,939 inflation adjusted funding in 2022 is a 8.40 percent increase over the non-inflation adjusted funding of \$94,962.



## 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 \$4,955 on an average balance of \$495,539, \$5,575 on an average balance of \$557,549 in 2020, and \$6,076 on \$607,641 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 \$94,962 to \$90,007 (a 5.22 percent reduction), \$97,436 to \$91,860 in 2020 (a 5.72 percent reduction), and \$100,295 to \$94,219 in 2021 (a 6.06 percent reduction).

## REPLACEMENT RESERVE STUDY - SUPPLEMENTAL COMMENTS

- Pine Creek Main has 1424 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 39 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

Pine Creek Main - Replacement Reserve Inventory identifies 97 items. Two types of items are identified, Projected Replacements and Excluded Items:

- **PROJECTED REPLACEMENTS.** 39 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 \$1,103,667. Replacements totaling \$3,946,720 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.** 58 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 97 items included in the Pine Creek Main Replacement Reserve Inventory are divided into 11 major categories. Each category is printed on a separate page, Pages B3 to B12.
- **LEVEL OF SERVICE.** This Replacement Reserve Inventory has been developed in compliance with the standards established for a Level Two - Update (with site visit and on-site review), as defined by the National Reserve Study Standards, established in 1998 by Community Associations Institute, which states:

*Level II Studies are based entirely on the component inventory from a prior study. This information is adjusted to reflect changes to the inventory that are provided by the Association, and the quantities are adjusted accordingly from field measurement and/or quantity takeoffs from to-scale drawings that are made available to us. The condition of all components is ascertained from a site visit and the visual inspection of each component by the analyst. The Remaining Economic Life and replacement cost of components are provided based in part on these observations. The fund status and Funding Plan are derived from analysis of this data.*

## REPLACEMENT RESERVE INVENTORY - GENERAL INFORMATION (cont'd)

- **INVENTORY DATA.** Each of the 39 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 58 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	Wall - Stucco Tuckpoint @ 4%	sf	13,728	\$4.50	6	none	\$61,778
2	Wall - Stone Tuckpoint @ 4%	sf	1,106	\$5.50	6	none	\$6,083
3	Pilaster - Stone Tuckpoint @ 4%	sf	1,720	\$5.50	6	6	\$9,459
4	Pilaster - Top Cap @ 2%	ea	18	\$150.00	6	6	\$2,715
5	Concrete Sidewalk @ 4%	sf	12,868	\$9.25	6	6	\$119,025
6	Metal Fencing @ 25%	lf	11,216	\$46.50	10	16	\$521,544
7	Wood Privacy Fencing	lf	4,780	\$19.50	20	2	\$93,210
8	Mailbox Stucco Tuckpoint @ 4%	sf	94	\$5.50	6	none	\$517
9	Mailbox Stone Tuckpoint @ 4%	sf	54	\$5.50	6	6	\$296
10	Mailbox Roofing (20%)	ea	9	\$750.00	4	4	\$6,450
11	Monument Stone Tuckpoint @ 4%	sf	920	\$5.50	6	6	\$5,060
12	Monument Roofs @ 20%	ea	7	\$1,500.00	10	6	\$10,500
13	Monument Sign (small) @ 20%	ea	1	\$3,500.00	6	6	\$3,500
14	Monument Sign (medium) @ 20%	ea	5	\$5,000.00	6	6	\$26,000
15	Monument Sign (large) @ 20%	ea	1	\$6,500.00	6	6	\$6,500
SITE COMPONENTS - Replacement Costs - Subtotal							\$872,637

**SITE COMPONENTS**  
**COMMENTS**

- 05/10/2015 - Wall Stucco added - 52,080 sf
  
- 05/10/2015 - Pilaster Stone added - 4,896 sf  
2015 - Pilaster Top Caps added - 102 ea  
Concrete Sidewalks added - 24,060 sf  
Fencing added - 4,136 lf
  
- 05/10/2015 - Wood Privacy Fencing added - 905 lf
- 05/10/2015 - Mailbox Kiosk Stucco added - 280 sf
- 05/10/2015 - Mailbox Kiosk Stone added - 160 sf
- 05/10/2015 - Mailbox Kiosk Roofing added - 5 ea
- 05/10/2015 - Monument Stone added - 2,600 sf
- 05/10/2015 - Monument Roofs added - 4 ea
- 05/10/2015 - Monument Signage added - 4 ea

.05/10/  
05/10/2015 -  
05/10/2015 - Metal

**SITE COMPONENTS (cont.)**

**PROJECTED REPLACEMENTS**

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
16	Retaining Wall, SRW, re-stack @10%	sf	426	\$20.00	10	6	\$8,520
17	Retaining Wall, Stone, re-stack @10%	sf	104	\$20.00	10	6	\$2,080
18	Lights - Monuments	ea	36	\$225.00	30	8	\$8,100
19	Lights - Mailbox Kiosks	ea	37	\$600.00	30	8	\$22,200
20	Irrigation Controllers	ea	27	\$2,200.00	12	5	\$59,400
21	Backflow Preventers	ea	25	\$1,200.00	12	5	\$30,000
22	Gazebo, 8' octagon	ea	1	\$5,000.00	25	11	\$5,000
23	Metal Bench	ea	1	\$650.00	25	11	\$650

SITE COMPONENTS (cont.) - Replacement Costs - Subtotal \$135,950

**SITE COMPONENTS (cont.)**

**COMMENTS**

- 05/10/2015 - SRW Retaining Wall added - 4,260 sf
- 05/10/2015 - Stone Retaining Wall added - 1,040 sf



**RECREATION**  
**PROJECTED REPLACEMENTS**

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
24	Tot lot, ADA structure, Zosma	ea	1	\$21,000.00	20	9	\$21,000
25	Tot lot, ADA structure, Circuits	ea	1	\$14,500.00	20	9	\$14,500
26	Tot lot, ADA structure, Mizar	ea	1	\$9,500.00	20	9	\$9,500
27	Tot lot, ADA structure, Super Nova	ea	1	\$6,500.00	20	9	\$6,500
28	Tot lot, climbing boulder	ea	1	\$8,500.00	20	9	\$8,500
29	Tot lot, hill slide	ea	1	\$2,500.00	20	9	\$2,500
30	Tot lot fall protection rubber matting	ea	1	\$5,000.00	20	9	\$5,000
31	MP court, asphalt overlay	sf	1,600	\$4.00	20	8	\$6,400
32	MP court, color coat	sf	1,600	\$0.75	5	3	\$1,200
33	Basketball pole & backstop	ea	1	\$1,000.00	20	8	\$1,000
34	Picnic Table	ea	3	\$1,000.00	15	8	\$3,000
35	Bench	ea	6	\$880.00	15	8	\$5,280
36	Bike rack, 4 bikes	ea	1	\$600.00	30	19	\$600
37	Trash can & receptacle	ea	3	\$250.00	10	8	\$750
38	Pavilion, roof	sf	600	\$14.50	40	38	\$8,700
39	Pavilion, repairs	ls	1	\$650.00	10	8	\$650
<b>RECREATION - Replacement Costs - Subtotal</b>							<b>\$95,080</b>

**RECREATION**  
**COMMENTS**

- Tot lots and tot lot equipment should be evaluated annually by a playground safety specialist for compliance with the Consumer Product Safety Commission, Handbook for Public Playground Safety. Defects should be corrected immediately to protect the users of the facilities from potential injury and the Association from potential liability for those injuries.
  
- Splash Park removed by HOA - 06/15/2019
- Splash Park coating & pumps abandoned - 06/15/2019

**VALUATION EXCLUSIONS**

**EXCLUDED ITEMS**

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
	Miscellaneous 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
	Miscellaneous culverts	ls	1				EXCLUDED
	Bridge structure and foundations	ls	1				EXCLUDED
	Segmental retaining walls	ls	1				EXCLUDED
	Common element electrical services	ls	1				EXCLUDED
	Electrical wiring	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
	Driveway on an individual lot	ls	1				EXCLUDED
	Apron on an individual lot	ls	1				EXCLUDED
	Sidewalk on an individual lot	ls	1				EXCLUDED
	Stairs on an individual lot	ls	1				EXCLUDED
	Curb & gutter on an individual lot	ls	1				EXCLUDED
	Retaining wall on an individual lot	ls	1				EXCLUDED
	Unit exterior	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
	Stormwater management system	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 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
	Numbering of parking spaces	ls	1				EXCLUDED
	Landscaping and site grading	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, sidewalks & curbs	ls	1				EXCLUDED
	Government, lighting	ls	1				EXCLUDED
	Government, stormwater mgmt.	ls	1				EXCLUDED
	Government, mailboxes	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 electrical service	ls	1				EXCLUDED
	Irrigation system enclosures	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.

## PROJECTED ANNUAL REPLACEMENTS GENERAL INFORMATION

CALENDAR OF ANNUAL REPLACEMENTS. The 39 Projected Replacements in the Pine Creek Main 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 forty 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 Pine Creek Main 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 1 TO 6**

Item	FY 2019 - STUDY YEAR	\$
1	Wall - Stucco Tuckpoint @ 4	\$61,778
2	Wall - Stone Tuckpoint @ 4'	\$6,083
8	Mailbox Stucco Tuckpoint @	\$517
Total Scheduled Replacements		\$68,378

Item	FY 2020 - YEAR 2	\$
No Scheduled Replacements		

Item	FY 2021 - YEAR 3	\$
7	Wood Privacy Fencing	\$93,210
Total Scheduled Replacements		\$93,210

Item	FY 2022 - YEAR 4	\$
32	MP court, color coat	\$1,200
Total Scheduled Replacements		\$1,200

Item	FY 2023 - YEAR 5	\$
10	Mailbox Roofing (20%)	\$6,450
Total Scheduled Replacements		\$6,450

Item	FY 2024 - YEAR 6	\$
20	Irrigation Controllers	\$59,400
21	Backflow Preventers	\$30,000
Total Scheduled Replacements		\$89,400

**PROJECTED REPLACEMENTS - YEARS 7 TO 12**

FY 2025 - YEAR 7			FY 2026 - YEAR 8			FY 2027 - YEAR 9		
Item		\$	Item		\$	Item		\$
1	Wall - Stucco Tuckpoint @ 4	\$61,778				10	Mailbox Roofing (20%)	\$6,450
2	Wall - Stone Tuckpoint @ 4	\$6,083				18	Lights - Monuments	\$8,100
3	Pilaster - Stone Tuckpoint @	\$9,459				19	Lights - Mailbox Kiosks	\$22,200
4	Pilaster - Top Cap @ 2%	\$2,715				31	MP court, asphalt overlay	\$6,400
5	Concrete Sidewalk @ 4%	\$119,025				32	MP court, color coat	\$1,200
8	Mailbox Stucco Tuckpoint @	\$517				33	Basketball pole & backstop	\$1,000
9	Mailbox Stone Tuckpoint @	\$296				34	Picnic Table	\$3,000
11	Monument Stone Tuckpoint	\$5,060				35	Bench	\$5,280
12	Monument Roofs @ 20%	\$10,500				37	Trash can & receptacle	\$750
13	Monument Sign (small) @ 2	\$3,500				39	Pavilion, repairs	\$650
14	Monument Sign (medium) @	\$26,000						
15	Monument Sign (large) @ 2	\$6,500						
16	Retaining Wall, SRW, re-sta	\$8,520						
17	Retaining Wall, Stone, re-sta	\$2,080						
Total Scheduled Replacements		\$262,033	No Scheduled Replacements			Total Scheduled Replacements		\$55,030
FY 2028 - YEAR 10			FY 2029 - YEAR 11			FY 2030 - YEAR 12		
Item		\$	Item		\$	Item		\$
24	Tot lot, ADA structure, Zosm	\$21,000				22	Gazebo, 8' octagon	\$5,000
25	Tot lot, ADA structure, Circu	\$14,500				23	Metal Bench	\$650
26	Tot lot, ADA structure, Mizar	\$9,500						
27	Tot lot, ADA structure, Supe	\$6,500						
28	Tot lot, climbing boulder	\$8,500						
29	Tot lot, hill slide	\$2,500						
30	Tot lot fall protection rubber	\$5,000						
Total Scheduled Replacements		\$67,500	No Scheduled Replacements			All Replacements not listed		\$5,650

**PROJECTED REPLACEMENTS - YEARS 13 TO 18**

Item	FY 2031 - YEAR 13	\$	Item	FY 2032 - YEAR 14	\$	Item	FY 2033 - YEAR 15	\$	
1	Wall - Stucco Tuckpoint @ 4	\$61,778	32	MP court, color coat	\$1,200				
2	Wall - Stone Tuckpoint @ 4	\$6,083							
3	Pilaster - Stone Tuckpoint @	\$9,459							
4	Pilaster - Top Cap @ 2%	\$2,715							
5	Concrete Sidewalk @ 4%	\$119,025							
8	Mailbox Stucco Tuckpoint @	\$517							
9	Mailbox Stone Tuckpoint @	\$296							
10	Mailbox Roofing (20%)	\$6,450							
11	Monument Stone Tuckpoint	\$5,060							
13	Monument Sign (small) @ 2	\$3,500							
14	Monument Sign (medium) @	\$26,000							
15	Monument Sign (large) @ 2	\$6,500							
Total Scheduled Replacements		\$247,383	Total Scheduled Replacements		\$1,200	No Scheduled Replacements			
Item	FY 2034 - YEAR 16	\$	Item	FY 2035 - YEAR 17	\$	Item	FY 2036 - YEAR 18	\$	
			6	Metal Fencing @ 25%	\$521,544	20	Irrigation Controllers	\$59,400	
			10	Mailbox Roofing (20%)	\$6,450	21	Backflow Preventers	\$30,000	
			12	Monument Roofs @ 20%	\$10,500				
			16	Retaining Wall, SRW, re-sta	\$8,520				
			17	Retaining Wall, Stone, re-sta	\$2,080				
No Scheduled Replacements			Total Scheduled Replacements		\$549,094	Total Scheduled Replacements			\$89,400

**PROJECTED REPLACEMENTS - YEARS 19 TO 24**

FY 2037 - YEAR 19			FY 2038 - YEAR 20			FY 2039 - YEAR 21		
Item		\$	Item		\$	Item		\$
1	Wall - Stucco Tuckpoint @ 4	\$61,778	36	Bike rack, 4 bikes	\$600	10	Mailbox Roofing (20%)	\$6,450
2	Wall - Stone Tuckpoint @ 4	\$6,083						
3	Pilaster - Stone Tuckpoint @	\$9,459						
4	Pilaster - Top Cap @ 2%	\$2,715						
5	Concrete Sidewalk @ 4%	\$119,025						
8	Mailbox Stucco Tuckpoint @	\$517						
9	Mailbox Stone Tuckpoint @	\$296						
11	Monument Stone Tuckpoint	\$5,060						
13	Monument Sign (small) @ 2	\$3,500						
14	Monument Sign (medium) @	\$26,000						
15	Monument Sign (large) @ 2	\$6,500						
32	MP court, color coat	\$1,200						
37	Trash can & receptacle	\$750						
39	Pavilion, repairs	\$650						
Total Scheduled Replacements		\$243,533	Total Scheduled Replacements		\$600	Total Scheduled Replacements		\$6,450
FY 2040 - YEAR 22			FY 2041 - YEAR 23			FY 2042 - YEAR 24		
			7	Wood Privacy Fencing	\$93,210	32	MP court, color coat	\$1,200
						34	Picnic Table	\$3,000
						35	Bench	\$5,280
No Scheduled Replacements			Total Scheduled Replacements		\$93,210	Total Scheduled Replacements		\$9,480

**PROJECTED REPLACEMENTS - YEARS 25 TO 30**

FY 2043 - YEAR 25			FY 2044 - YEAR 26			FY 2045 - YEAR 27		
Item		\$	Item		\$	Item		\$
1	Wall - Stucco Tuckpoint @ 4	\$61,778				6	Metal Fencing @ 25%	\$521,544
2	Wall - Stone Tuckpoint @ 4	\$6,083				12	Monument Roofs @ 20%	\$10,500
3	Pilaster - Stone Tuckpoint @	\$9,459				16	Retaining Wall, SRW, re-sta	\$8,520
4	Pilaster - Top Cap @ 2%	\$2,715				17	Retaining Wall, Stone, re-sta	\$2,080
5	Concrete Sidewalk @ 4%	\$119,025						
8	Mailbox Stucco Tuckpoint @	\$517						
9	Mailbox Stone Tuckpoint @	\$296						
10	Mailbox Roofing (20%)	\$6,450						
11	Monument Stone Tuckpoint	\$5,060						
13	Monument Sign (small) @ 2	\$3,500						
14	Monument Sign (medium) @	\$26,000						
15	Monument Sign (large) @ 2	\$6,500						
Total Scheduled Replacements		\$247,383	No Scheduled Replacements			Total Scheduled Replacements		\$542,644
FY 2046 - YEAR 28			FY 2047 - YEAR 29			FY 2048 - YEAR 30		
Item		\$	Item		\$	Item		\$
			10	Mailbox Roofing (20%)	\$6,450	20	Irrigation Controllers	\$59,400
			31	MP court, asphalt overlay	\$6,400	21	Backflow Preventers	\$30,000
			32	MP court, color coat	\$1,200	24	Tot lot, ADA structure, Zosm	\$21,000
			33	Basketball pole & backstop	\$1,000	25	Tot lot, ADA structure, Circu	\$14,500
			37	Trash can & receptacle	\$750	26	Tot lot, ADA structure, Mizar	\$9,500
			39	Pavilion, repairs	\$650	27	Tot lot, ADA structure, Supe	\$6,500
						28	Tot lot, climbing boulder	\$8,500
						29	Tot lot, hill slide	\$2,500
						30	Tot lot fall protection rubber	\$5,000
No Scheduled Replacements			Total Scheduled Replacements		\$16,450	Total Scheduled Replacements		\$156,900



**PROJECTED REPLACEMENTS - YEARS 31 TO 36**

Item	FY 2049 - YEAR 31	\$	Item	FY 2050 - YEAR 32	\$	Item	FY 2051 - YEAR 33	\$
1	Wall - Stucco Tuckpoint @ 4	\$61,778				10	Mailbox Roofing (20%)	\$6,450
2	Wall - Stone Tuckpoint @ 4	\$6,083						
3	Pilaster - Stone Tuckpoint @	\$9,459						
4	Pilaster - Top Cap @ 2%	\$2,715						
5	Concrete Sidewalk @ 4%	\$119,025						
8	Mailbox Stucco Tuckpoint @	\$517						
9	Mailbox Stone Tuckpoint @	\$296						
11	Monument Stone Tuckpoint	\$5,060						
13	Monument Sign (small) @ 2	\$3,500						
14	Monument Sign (medium) @	\$26,000						
15	Monument Sign (large) @ 2	\$6,500						
Total Scheduled Replacements		\$240,933	No Scheduled Replacements			Total Scheduled Replacements		\$6,450

Item	FY 2052 - YEAR 34	\$	Item	FY 2053 - YEAR 35	\$	Item	FY 2054 - YEAR 36	\$
32	MP court, color coat	\$1,200						
Total Scheduled Replacements		\$1,200	No Scheduled Replacements			No Scheduled Replacements		

**PROJECTED REPLACEMENTS - YEARS 37 TO 42**

FY 2055 - YEAR 37			FY 2056 - YEAR 38			FY 2057 - YEAR 39			
Item		\$	Item		\$	Item		\$	
1	Wall - Stucco Tuckpoint @ 4	\$61,778				18	Lights - Monuments	\$8,100	
2	Wall - Stone Tuckpoint @ 4	\$6,083				19	Lights - Mailbox Kiosks	\$22,200	
3	Pilaster - Stone Tuckpoint @	\$9,459				32	MP court, color coat	\$1,200	
4	Pilaster - Top Cap @ 2%	\$2,715				34	Picnic Table	\$3,000	
5	Concrete Sidewalk @ 4%	\$119,025				35	Bench	\$5,280	
6	Metal Fencing @ 25%	\$521,544				37	Trash can & receptacle	\$750	
8	Mailbox Stucco Tuckpoint @	\$517				38	Pavilion, roof	\$8,700	
9	Mailbox Stone Tuckpoint @	\$296				39	Pavilion, repairs	\$650	
10	Mailbox Roofing (20%)	\$6,450							
11	Monument Stone Tuckpoint	\$5,060							
12	Monument Roofs @ 20%	\$10,500							
13	Monument Sign (small) @ 2	\$3,500							
14	Monument Sign (medium) @	\$26,000							
15	Monument Sign (large) @ 2l	\$6,500							
16	Retaining Wall, SRW, re-sta	\$8,520							
17	Retaining Wall, Stone, re-sta	\$2,080							
22	Gazebo, 8' octagon	\$5,000							
23	Metal Bench	\$650							
Total Scheduled Replacements		\$795,677	No Scheduled Replacements			Total Scheduled Replacements		\$49,880	
FY 2058 - YEAR 40			2059 (beyond Study Period)			2060 (beyond Study Period)			
Item		\$	Item		\$	Item		\$	
			10	Mailbox Roofing (20%)	\$6,450	20	Irrigation Controllers	\$59,400	
						21	Backflow Preventers	\$30,000	
No Scheduled Replacements			Total Scheduled Replacements			\$6,450	Total Scheduled Replacements		\$89,400

## CASH FLOW METHOD ACCOUNTING SUMMARY

This Pine Creek Main - Cash Flow Method Accounting Summary is an attachment to the Pine Creek Main - Replacement Reserve Study dated June 15, 2019 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 39 Projected Replacements listed in the Pine Creek Main Replacement Reserve Inventory has been assigned to one of 3 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 \$482,247 Beginning Balance (at the start of the Study Year) and the \$284,886 of additional Replacement Reserve Funding in 2019 through 2021 (as calculated in the Replacement Reserve Analysis) to each of the 39 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 \$482,247 Beginning Balance to the Projected Replacements by Chronological Allocation.
  - Allocation of the \$284,886 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 \$482,247 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 Pine Creek Main the Beginning Balance funds all Scheduled Replacements in the Study Year through 2024 and provides partial funding (85%) of replacements scheduled in 2025.
  - The next step is the allocation of the \$94,962 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 Pine Creek Main the Beginning Balance and the 2019 Replacement Reserve Funding, funds replacements through 2027 and partial funds (2.2%) replacements in 2028.
  - 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 39 Projected Replacements included in the Pine Creek Main Replacement Reserve Inventory has been assigned to one of the 3 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 \$482,247 as of the first day of the Study Year, January 1, 2019.
- Total reserve funding (including the Beginning Balance) of \$577,209 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 \$68,378.

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	4 to 20 years	0 to 16 years	\$872,637	\$382,602	\$43,320	(\$68,378)	\$357,543
SITE COMPONENTS (cont.)	10 to 30 years	5 to 11 years	\$135,950	\$98,446	\$31,854		\$130,300
RECREATION	5 to 40 years	3 to 38 years	\$95,080	\$1,200	\$19,788		\$20,988

### 2020 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 39 Projected Replacements included in the Pine Creek Main Replacement Reserve Inventory has been assigned to one of the 3 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 \$508,831 on January 1, 2020.
- Total reserve funding (including the Beginning Balance) of \$672,171 from 2019 through 2020.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.

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	4 to 20 years	1 to 15 years	\$872,637	\$357,543	\$23,320		\$380,863
SITE COMPONENTS (cont.)	10 to 30 years	4 to 10 years	\$135,950	\$130,300	\$5,650		\$135,950
RECREATION	5 to 40 years	2 to 37 years	\$95,080	\$20,988	\$65,992		\$86,980

### 2021 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 39 Projected Replacements included in the Pine Creek Main Replacement Reserve Inventory has been assigned to one of the 3 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 \$603,793 on January 1, 2021.
- Total Replacement Reserve funding (including the Beginning Balance) of \$767,133 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 \$93,210.

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	4 to 20 years	0 to 14 years	\$872,637	\$380,863	\$94,962	(\$93,210)	\$382,615
SITE COMPONENTS (cont.)	10 to 30 years	3 to 9 years	\$135,950	\$135,950			\$135,950
RECREATION	5 to 40 years	1 to 36 years	\$95,080	\$86,980	\$0		\$86,980

### CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CF4 below details the allocation of the \$482,247 Beginning Balance, as reported by the Association and the \$284,886 of Replacement Reserve Funding calculated by the Cash Flow Method from 2019 to 2021, to the 39 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 \$482,247 on January 1, 2019.
- Replacement Reserves on Deposit totaling \$508,831 on January 1, 2020.
- Replacement Reserves on Deposit totaling \$603,793 on January 1, 2021.
- Total Replacement Reserve funding (including the Beginning Balance) of \$767,133 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 \$161,588.

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.

#### CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CF4

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	Wall - Stucco Tuckpoint @ 4%	61,778	114,497	9,059	(61,778)	61,778	5,823		67,601	23,714		91,316
2	Wall - Stone Tuckpoint @ 4%	6,083	11,274	892	(6,083)	6,083	573		6,656	2,335		8,991
3	Pilaster - Stone Tuckpoint @ 4%	9,459	8,072	1,387		9,459	892		10,351	3,631		13,982
4	Pilaster - Top Cap @ 2%	2,715	2,317	398		2,715	256		2,971	1,042		4,013
5	Concrete Sidewalk @ 4%	119,025	101,572	17,454		119,025	11,220		130,245	45,690		175,935
6	Metal Fencing @ 25%	521,544										
7	Wood Privacy Fencing	93,210	93,210			93,210			93,210		(93,210)	
8	Mailbox Stucco Tuckpoint @ 4%	517	959	76	(517)	517	49		566	199		765
9	Mailbox Stone Tuckpoint @ 4%	296	252	43		296	28		324	114		437
10	Mailbox Roofing (20%)	6,450	6,450	6,450		12,900	608		13,508	2,476		15,984
11	Monument Stone Tuckpoint @ 4%	5,060	4,318	742		5,060	477		5,537	1,942		7,479
12	Monument Roofs @ 20%	10,500	8,960	1,540		10,500			10,500			10,500
13	Monument Sign (small) @ 20%	3,500	2,987	513		3,500	330		3,830	1,344		5,173
14	Monument Sign (medium) @ 20%	26,000	22,187	3,813		26,000	2,451		28,451	9,981		38,431
15	Monument Sign (large) @ 20%	6,500	5,547	953		6,500	613		7,113	2,495		9,608
SITE COMPONENTS (cont.)												
16	Retaining Wall, SRW, re-stack @ 10%	8,520	7,271	1,249		8,520			8,520			8,520
17	Retaining Wall, Stone, re-stack @ 10%	2,080	1,775	305		2,080			2,080			2,080
18	Lights - Monuments	8,100		8,100		8,100			8,100			8,100
19	Lights - Mailbox Kiosks	22,200		22,200		22,200			22,200			22,200
20	Irrigation Controllers	59,400	59,400			59,400			59,400			59,400
21	Backflow Preventers	30,000	30,000			30,000			30,000			30,000
22	Gazebo, 8' octagon	5,000					5,000		5,000			5,000
23	Metal Bench	650					650		650			650
RECREATION												
24	Tot lot, ADA structure, Zosma	21,000		469		469	20,531		21,000			21,000
25	Tot lot, ADA structure, Circuits	14,500		324		324	14,176		14,500			14,500
26	Tot lot, ADA structure, Mizar	9,500		212		212	9,288		9,500			9,500
27	Tot lot, ADA structure, Super Nova	6,500		145		145	6,355		6,500			6,500
28	Tot lot, climbing boulder	8,500		190		190	8,310		8,500			8,500
29	Tot lot, hill slide	2,500		56		56	2,444		2,500			2,500
30	Tot lot fall protection rubber matting	5,000		112		112	4,888		5,000			5,000
31	MP court, asphalt overlay	6,400		6,400		6,400			6,400			6,400
32	MP court, color coat	1,200	1,200	1,200		2,400			2,400			2,400
33	Basketball pole & backstop	1,000		1,000		1,000			1,000			1,000
34	Picnic Table	3,000		3,000		3,000			3,000			3,000
35	Bench	5,280		5,280		5,280			5,280			5,280
36	Bike rack, 4 bikes	600										
37	Trash can & receptacle	750		750		750			750			750
38	Pavilion, roof	8,700										
39	Pavilion, repairs	650		650		650			650			650



### COMPONENT METHOD

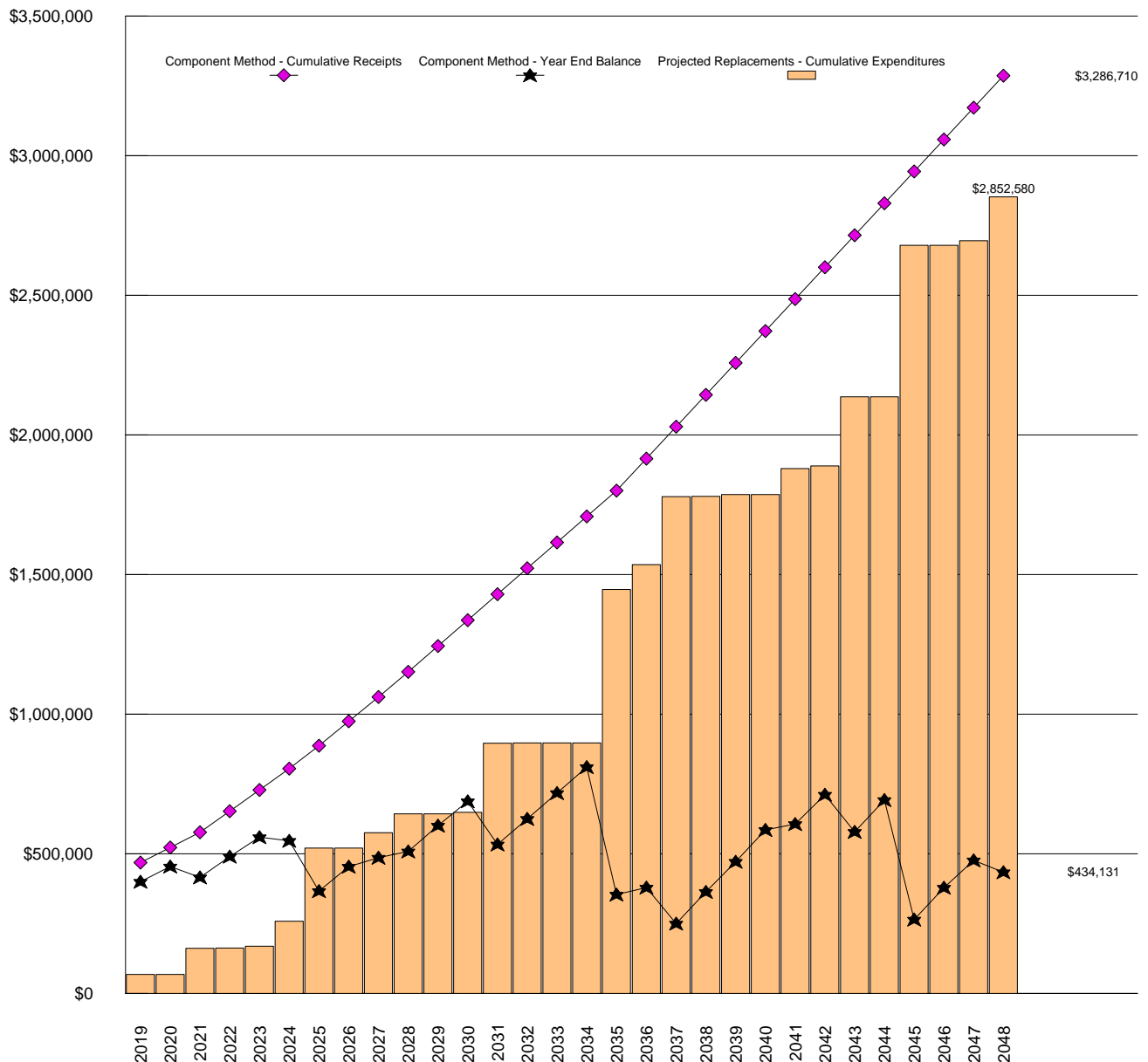


**(\$13,428) COMPONENT METHOD RECOMMENDED ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2019.**

\$-0.79 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 39 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 39 Projected Replacements. The total, \$264,714, 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 (\$482,247) by the Current Funding Objective (\$264,714). At Pine Creek Main the Funding Percentage is 182.2%
- **Allocation of the Beginning Balance.** The Beginning Balance is divided among the 39 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 182.2 percent funded, there is \$1,457 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 \$-13,428, the Component Method Recommended Annual Funding of Replacement Reserves in the Study Year (2019).

In our fence example, the \$1,457 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 \$-229. Next year, the deposit remains \$-229, 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	\$482,247									
Recommended annual funding	(\$13,428)	\$54,159	\$54,159	\$75,862	\$75,911	\$76,234	\$82,356	\$87,207	\$87,207	\$89,831
Interest on reserves										
Expenditures	\$68,378		\$93,210	\$1,200	\$6,450	\$89,400	\$262,033		\$55,030	\$67,500
Year end balance	\$400,441	\$454,600	\$415,550	\$490,211	\$559,672	\$546,506	\$366,828	\$454,035	\$486,213	\$508,543
Cumulative Expenditures	\$68,378	\$68,378	\$161,588	\$162,788	\$169,238	\$258,638	\$520,672	\$520,672	\$575,702	\$643,202
Cumulative Receipts	\$468,819	\$522,979	\$577,138	\$653,000	\$728,911	\$805,144	\$887,500	\$974,707	\$1,061,914	\$1,151,745
Year	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Recommended annual funding	\$92,604	\$92,604	\$92,805	\$92,805	\$92,805	\$92,805	\$92,805	\$114,281	\$114,281	\$114,281
Interest on reserves										
Expenditures		\$5,650	\$247,383	\$1,200			\$549,094	\$89,400	\$243,533	\$600
Year end balance	\$601,147	\$688,101	\$533,523	\$625,129	\$717,934	\$810,739	\$354,451	\$379,331	\$250,079	\$363,759
Cumulative Expenditures	\$643,202	\$648,852	\$896,235	\$897,435	\$897,435	\$897,435	\$1,446,529	\$1,535,929	\$1,779,462	\$1,780,062
Cumulative Receipts	\$1,244,349	\$1,336,953	\$1,429,758	\$1,522,564	\$1,615,369	\$1,708,174	\$1,800,980	\$1,915,260	\$2,029,541	\$2,143,822
Year	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Recommended annual funding	\$114,289	\$114,289	\$114,289	\$114,289	\$114,289	\$114,289	\$114,289	\$114,289	\$114,289	\$114,289
Interest on reserves										
Expenditures	\$6,450		\$93,210	\$9,480	\$247,383		\$542,644		\$16,450	\$156,900
Year end balance	\$471,598	\$585,887	\$606,966	\$711,775	\$578,680	\$692,969	\$264,614	\$378,903	\$476,742	\$434,131
Cumulative Expenditures	\$1,786,512	\$1,786,512	\$1,879,722	\$1,889,202	\$2,136,586	\$2,136,586	\$2,679,230	\$2,679,230	\$2,695,680	\$2,852,580
Cumulative Receipts	\$2,258,110	\$2,372,399	\$2,486,688	\$2,600,977	\$2,715,266	\$2,829,555	\$2,943,844	\$3,058,133	\$3,172,421	\$3,286,710

## COMPONENT METHOD ACCOUNTING SUMMARY

This Pine Creek Main - Component Method Accounting Summary is an attachment to the Pine Creek Main - Replacement Reserve Study dated June 15, 2019 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 39 Projected Replacements listed in the Pine Creek Main Replacement Reserve Inventory has been assigned to one of 3 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 \$482,247 Beginning Balance (at the start of the Study Year) and the \$94,891 of additional Replacement Reserve funding from 2019 to 2021 (as calculated in the Replacement Reserve Analysis) to each of the 39 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 \$482,247 Beginning Balance to the Projected Replacements by the Component Method.
  - Allocation of the \$94,891 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 39 Projected Replacements included in the Pine Creek Main Replacement Reserve Inventory has been assigned to one of the 3 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 \$482,247 as of the first day of the Study Year, January 1, 2019.
- Total reserve funding (including the Beginning Balance) of \$468,819 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 \$68,378.

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	4 to 20 years	0 to 16 years	\$872,637	\$274,643	(\$15,933)	\$68,378	\$190,332
SITE COMPONENTS (cont.)	10 to 30 years	5 to 11 years	\$135,950	\$131,218	\$1,113		\$132,331
RECREATION	5 to 40 years	3 to 38 years	\$95,080	\$76,386	\$1,392		\$77,778

### 2020 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 39 Projected Replacements included in the Pine Creek Main Replacement Reserve Inventory has been assigned to one of the 3 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 \$400,441 on January 1, 2020.
- Total reserve funding (including the Beginning Balance) of \$522,979 from 2019 through 2020.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.

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	4 to 20 years	1 to 15 years	\$872,637	\$190,332	\$51,654		\$241,987
SITE COMPONENTS (cont.)	10 to 30 years	4 to 10 years	\$135,950	\$132,331	\$1,113		\$133,444
RECREATION	5 to 40 years	2 to 37 years	\$95,080	\$77,778	\$1,392		\$79,170

### 2021 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 39 Projected Replacements included in the Pine Creek Main Replacement Reserve Inventory has been assigned to one of the 3 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 \$454,600 on January 1, 2021.
- Total Replacement Reserve funding (including the Beginning Balance) of \$577,138 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 \$93,210.

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	4 to 20 years	0 to 14 years	\$872,637	\$241,987	\$51,654	\$93,210	\$200,431
SITE COMPONENTS (cont.)	10 to 30 years	3 to 9 years	\$135,950	\$133,444	\$1,113		\$134,556
RECREATION	5 to 40 years	1 to 36 years	\$95,080	\$79,170	\$1,392		\$80,562

### COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CM4 below details the allocation of the \$482,247 Beginning Balance, as reported by the Association and the \$94,891 of Replacement Reserve Funding calculated by the Cash Flow Method from 2019 to 2021, to the 39 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 \$482,247 on January 1, 2019.
- Replacement Reserves on Deposit totaling \$400,441 on January 1, 2020.
- Replacement Reserves on Deposit totaling \$454,600 on January 1, 2021.
- Total Replacement Reserve funding (including the Beginning Balance) of \$577,138 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 \$161,588.

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	Wall - Stucco Tuckpoint @ 4%	61,778	112,545	(50,767)	(61,778)		10,296		10,296	10,296		20,593
2	Wall - Stone Tuckpoint @ 4%	6,083	11,082	(4,999)	(6,083)		1,014		1,014	1,014		2,028
3	Pilaster - Stone Tuckpoint @ 4%	9,459		1,351		1,351	1,351		2,703	1,351		4,054
4	Pilaster - Top Cap @ 2%	2,715		388		388	388		776	388		1,164
5	Concrete Sidewalk @ 4%	119,025		17,004		17,004	17,004		34,007	17,004		51,011
6	Metal Fencing @ 25%	521,544		30,679		30,679	30,679		61,358	30,679		92,037
7	Wood Privacy Fencing	93,210	144,336	(17,042)		127,294	(17,042)		110,252	(17,042)	(93,210)	
8	Mailbox Stucco Tuckpoint @ 4%	517	943	(425)	(517)		86		86	86		172
9	Mailbox Stone Tuckpoint @ 4%	296		42		42	42		84	42		127
10	Mailbox Roofing (20%)	6,450		1,290		1,290	1,290		2,580	1,290		3,870
11	Monument Stone Tuckpoint @ 4%	5,060		723		723	723		1,446	723		2,169
12	Monument Roofs @ 20%	10,500	5,739	680		6,419	680		7,099	680		7,779
13	Monument Sign (small) @ 20%	3,500		500		500	500		1,000	500		1,500
14	Monument Sign (medium) @ 20%	26,000		3,714		3,714	3,714		7,429	3,714		11,143
15	Monument Sign (large) @ 20%	6,500		929		929	929		1,857	929		2,786
SITE COMPONENTS (cont.)												
16	Retaining Wall, SRW, re-stack @10%	8,520	4,656	552		5,208	552		5,760	552		6,312
17	Retaining Wall, Stone, re-stack @10%	2,080	1,137	135		1,272	135		1,406	135		1,541
18	Lights - Monuments	8,100	10,329	(248)		10,082	(248)		9,834	(248)		9,586
19	Lights - Mailbox Kiosks	22,200	28,310	(679)		27,631	(679)		26,952	(679)		26,273
20	Irrigation Controllers	59,400	54,106	882		54,989	882		55,871	882		56,753
21	Backflow Preventers	30,000	27,326	446		27,772	446		28,218	446		28,663
22	Gazebo, 8' octagon	5,000	4,737	22		4,759	22		4,780	22		4,802
23	Metal Bench	650	616	3		619	3		621	3		624
RECREATION												
24	Tot lot, ADA structure, Zosma	21,000	19,129	187		19,316	187		19,503	187		19,690
25	Tot lot, ADA structure, Circuits	14,500	13,208	129		13,337	129		13,466	129		13,595
26	Tot lot, ADA structure, Mizar	9,500	8,653	85		8,738	85		8,823	85		8,907
27	Tot lot, ADA structure, Super Nova	6,500	5,921	58		5,979	58		6,037	58		6,095
28	Tot lot, climbing boulder	8,500	7,743	76		7,818	76		7,894	76		7,970
29	Tot lot, hill slide	2,500	2,277	22		2,299	22		2,322	22		2,344
30	Tot lot fall protection rubber matting	5,000	4,554	45		4,599	45		4,644	45		4,688
31	MP court, asphalt overlay	6,400	6,413	(1)		6,411	(1)		6,410	(1)		6,408
32	MP court, color coat	1,200	437	191		628	191		819	191		1,009
33	Basketball pole & backstop	1,000	1,002	(0)		1,002	(0)		1,002	(0)		1,001
34	Picnic Table	3,000	2,186	90		2,277	90		2,367	90		2,457
35	Bench	5,280	3,848	159		4,007	159		4,166	159		4,325
36	Bike rack, 4 bikes	600	364	12		376	12		388	12		400
37	Trash can & receptacle	750	137	68		205	68		273	68		341
38	Pavilion, roof	8,700	396	213		609	213		822	213		1,035
39	Pavilion, repairs	650	118	59		177	59		237	59		296



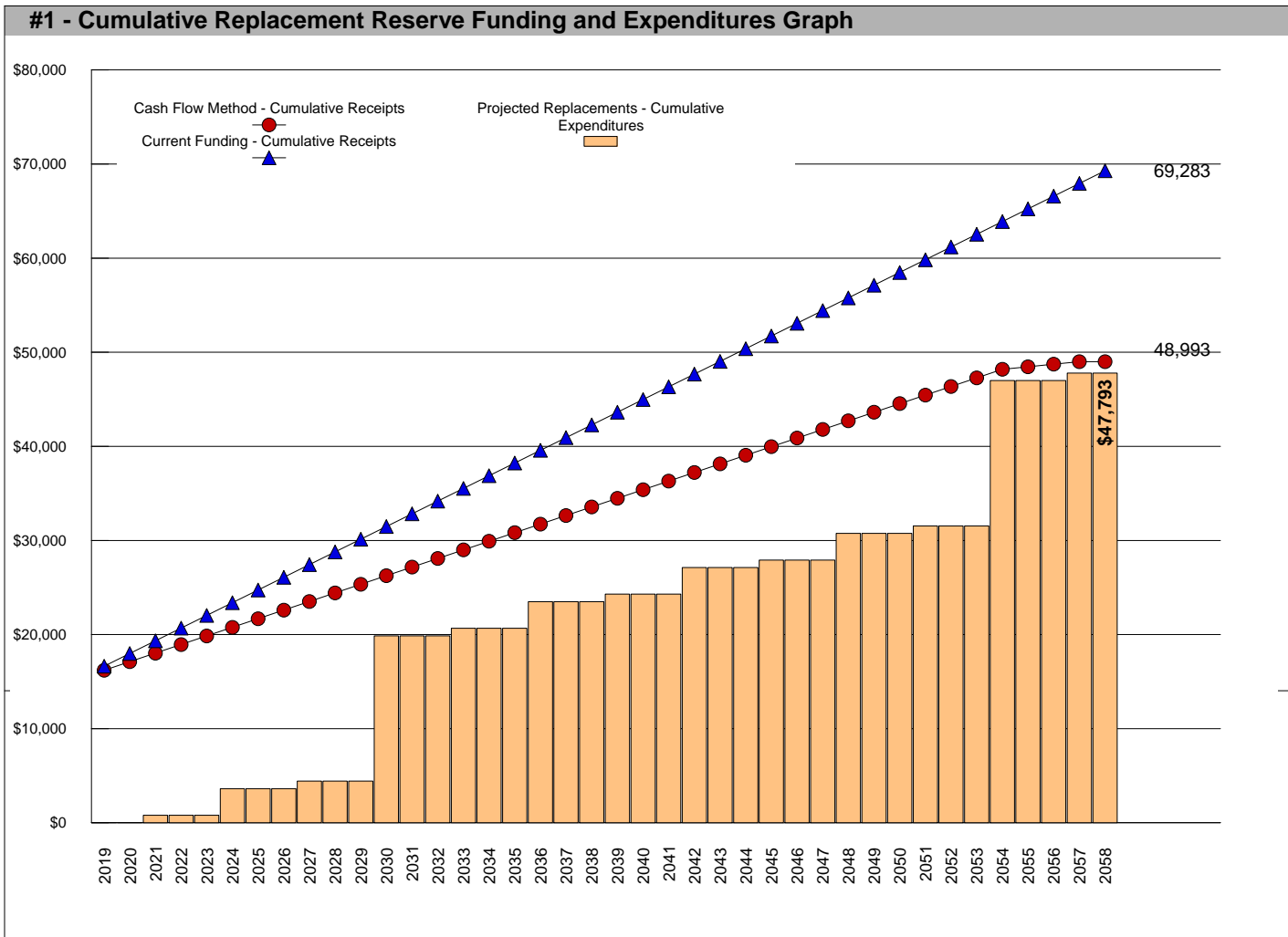
## EXECUTIVE SUMMARY

The PCV001 Replacement Reserve Analysis uses the Cash Flow Method (CFM) to calculate Replacement Reserve funding for the periodic replacement of the 4 Projected Replacements identified in the Replacement Reserve Inventory.

### **\$914** RECOMMENDED REPLACEMENT RESERVE FUNDING FOR THE STUDY YEAR, 2019

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.

PCV001 reports a Starting Balance of \$15,283 and Annual Funding totaling \$1,350. Current funding is greater than the funding necessary for the \$47,793 of Projected Replacements scheduled in the Replacement Reserve Inventory over the 40-year Study Period. See Page A3 for more detailed information.



The Current Funding Objective as calculated by the Component Method (Fully Funded) is \$6,307 making the reserve account 242.3% funded. See the Appendix for more information on this method.

**REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION**

The PCV001 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.

**\$15,283 | STARTING BALANCE**

The Association reports Replacement Reserves on Deposit totaling \$15,283 at the start of the Study Year.

**Level Two | LEVEL OF SERVICE**

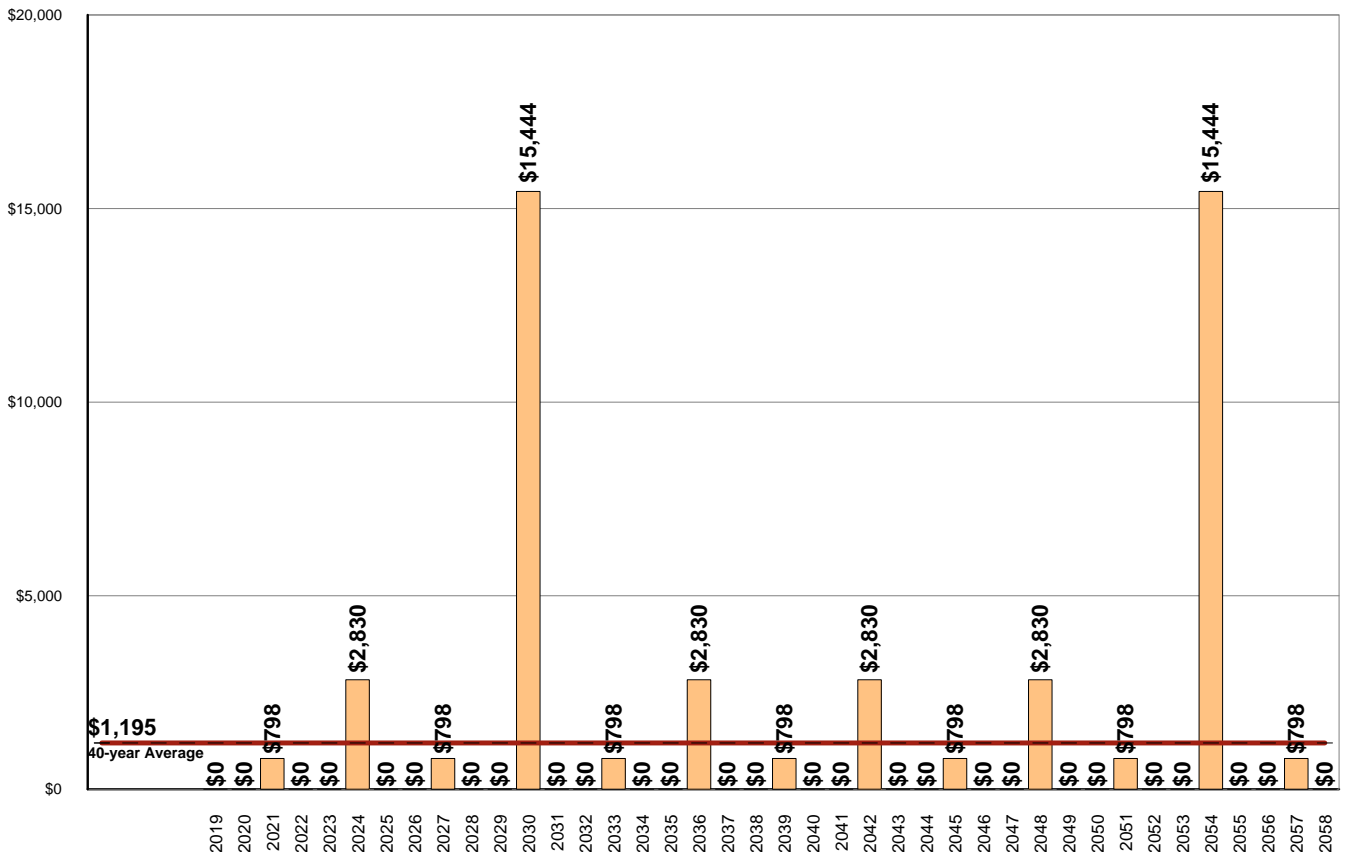
The Replacement Reserve Inventory has been developed in compliance with the National Reserve Study Standards for a Level Two Study, as defined by the Community Associations Institute (CAI).

**\$47,793 | REPLACEMENT RESERVE INVENTORY - PROJECTED REPLACEMENTS**

The PCV001 Replacement Reserve Inventory identifies 4 items that will require periodic replacement, that are to be funded from Replacement Reserves. We estimate the cost of these replacements will be \$47,793 over the 40-year Study Period. The Projected Replacements are divided into 4 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 \$1,195. 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 \$47,793 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.

<b>#3 - Table of Annual Expenditures and Current Funding Data - Years 1 through 40</b>										
Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Starting Balance	\$15,283									
Projected Replacements			(\$798)			(\$2,830)			(\$798)	
Annual Deposit	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350
End of Year Balance	\$16,633	\$17,983	\$18,536	\$19,886	\$21,236	\$19,755	\$21,105	\$22,455	\$23,008	\$24,358
Cumulative Expenditures			(\$798)	(\$798)	(\$798)	(\$3,628)	(\$3,628)	(\$3,628)	(\$4,426)	(\$4,426)
Cumulative Receipts	\$16,633	\$17,983	\$19,333	\$20,683	\$22,033	\$23,383	\$24,733	\$26,083	\$27,433	\$28,783
Year	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Projected Replacements		(\$15,444)			(\$798)			(\$2,830)		
Annual Deposit	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350
End of Year Balance	\$25,708	\$11,613	\$12,963	\$14,313	\$14,866	\$16,216	\$17,566	\$16,086	\$17,436	\$18,786
Cumulative Expenditures	(\$4,426)	(\$19,870)	(\$19,870)	(\$19,870)	(\$20,667)	(\$20,667)	(\$20,667)	(\$23,498)	(\$23,498)	(\$23,498)
Cumulative Receipts	\$30,133	\$31,483	\$32,833	\$34,183	\$35,533	\$36,883	\$38,233	\$39,583	\$40,933	\$42,283
Year	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Projected Replacements	(\$798)			(\$2,830)			(\$798)			(\$2,830)
Annual Deposit	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350
End of Year Balance	\$19,338	\$20,688	\$22,038	\$20,558	\$21,908	\$23,258	\$23,810	\$25,160	\$26,510	\$25,030
Cumulative Expenditures	(\$24,295)	(\$24,295)	(\$24,295)	(\$27,125)	(\$27,125)	(\$27,125)	(\$27,923)	(\$27,923)	(\$27,923)	(\$30,753)
Cumulative Receipts	\$43,633	\$44,983	\$46,333	\$47,683	\$49,033	\$50,383	\$51,733	\$53,083	\$54,433	\$55,783
Year	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058
Projected Replacements			(\$798)			(\$15,444)			(\$798)	
Annual Deposit	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350
End of Year Balance	\$26,380	\$27,730	\$28,282	\$29,632	\$30,982	\$16,888	\$18,238	\$19,588	\$20,140	\$21,490
Cumulative Expenditures	(\$30,753)	(\$30,753)	(\$31,551)	(\$31,551)	(\$31,551)	(\$46,995)	(\$46,995)	(\$46,995)	(\$47,793)	(\$47,793)
Cumulative Receipts	\$57,133	\$58,483	\$59,833	\$61,183	\$62,533	\$63,883	\$65,233	\$66,583	\$67,933	\$69,283

### EVALUATION OF CURRENT FUNDING

The evaluation of Current Funding (Starting Balance of \$15,283 & annual funding of \$1,350), 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 4 Projected Replacements identified in the Replacement Reserve Inventory and that the Association will continue Annual Funding of \$1,350 throughout the 40-year Study Period.

The Component Method (provided in the Appendix) is a little used Replacement Reserve funding methodology generally recognized for calculating MAXIMUM rational funding. The \$1,350 annual funding is approximately 353 percent of the \$382 Component Method recommended funding in 2019, the Study Year. Evaluation of the 4 Projected Replacements calculates an average annual expenditure over the next 40 years of \$1,195. Annual funding of \$1,350 is 113 percent of the average annual expenditure.

In summary, Current Funding as reported by the Association and outlined above, is greater than what is needed to provide timely and adequate funding for the \$47,793 of Projected Replacements scheduled in the Replacement Reserve Inventory over the 40-year Study Period.

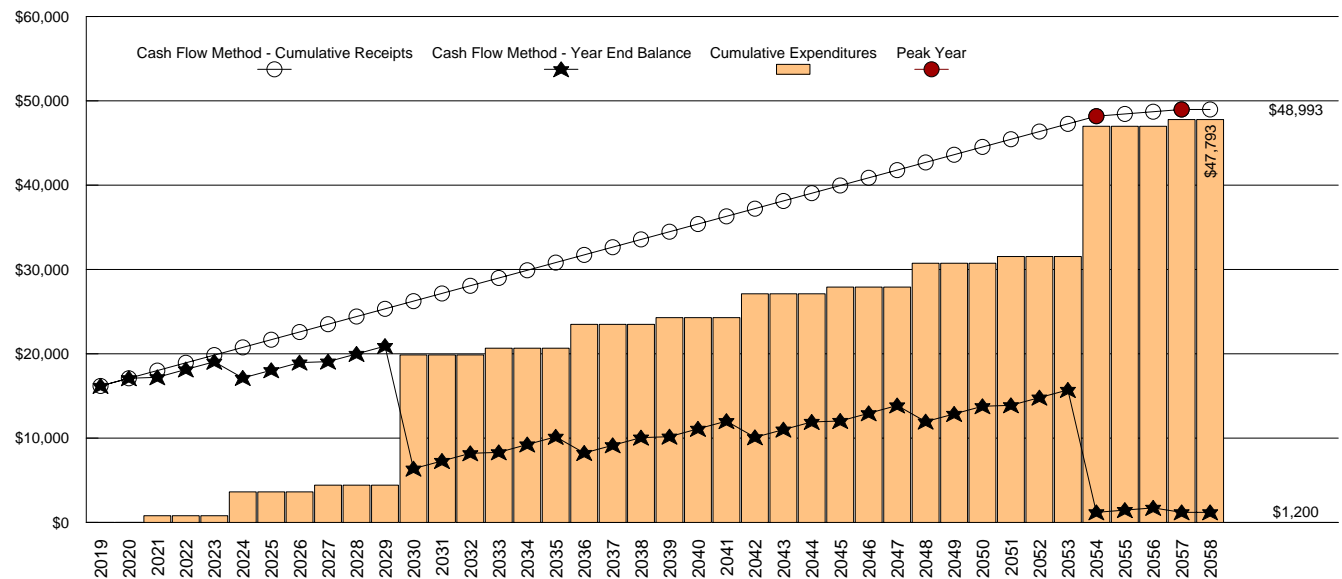
### CASH FLOW METHOD FUNDING

#### \$914 RECOMMENDED REPLACEMENT RESERVE FUNDING FOR 2019

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 2054 with Replacement Reserves on Deposit dropping to the Minimum Balance after the completion of \$46,995 of replacements from 2019 to 2054. Recommended funding declines from \$914 in 2054 to \$266 in 2055. Peak Years are identified in Chart 4 and Table 5.
- **Minimum Balance.** The calculations assume a Minimum Balance of \$1,200 in Replacement Reserves. This is approx. 12 months of average expenditures based on the \$1,195, 40-year average annual expenditure.
- **Cash Flow Method Study Period.** Cash Flow Method calculates funding for \$47,793 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	\$15,283									
Projected Replacements			(\$798)			(\$2,830)			(\$798)	
Annual Deposit	\$914	\$914	\$914	\$914	\$914	\$914	\$914	\$914	\$914	\$914
End of Year Balance	\$16,197	\$17,112	\$17,228	\$18,142	\$19,057	\$17,141	\$18,055	\$18,969	\$19,086	\$20,000
Cumulative Expenditures			\$798	\$798	\$798	\$3,628	\$3,628	\$3,628	\$4,426	\$4,426
Cumulative Receipts	\$16,197	\$17,112	\$18,026	\$18,940	\$19,854	\$20,769	\$21,683	\$22,597	\$23,511	\$24,425
Year	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Projected Replacements		(\$15,444)			(\$798)			(\$2,830)		
Annual Deposit	\$914	\$914	\$914	\$914	\$914	\$914	\$914	\$914	\$914	\$914
End of Year Balance	\$20,914	\$6,384	\$7,298	\$8,213	\$8,329	\$9,243	\$10,158	\$8,242	\$9,156	\$10,070
Cumulative Expenditures	(\$4,426)	(\$19,870)	(\$19,870)	(\$19,870)	(\$20,667)	(\$20,667)	(\$20,667)	(\$23,498)	(\$23,498)	(\$23,498)
Cumulative Receipts	\$25,340	\$26,254	\$27,168	\$28,082	\$28,996	\$29,911	\$30,825	\$31,739	\$32,653	\$33,568
Year	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Projected Replacements				(\$2,830)			(\$798)			(\$2,830)
Annual Deposit	\$914	\$914	\$914	\$914	\$914	\$914	\$914	\$914	\$914	\$914
End of Year Balance	\$10,187	\$11,101	\$12,015	\$10,099	\$11,013	\$11,928	\$12,044	\$12,958	\$13,873	\$11,957
Cumulative Expenditures	(\$24,295)	(\$24,295)	(\$24,295)	(\$27,125)	(\$27,125)	(\$27,125)	(\$27,923)	(\$27,923)	(\$27,923)	(\$30,753)
Cumulative Receipts	\$34,482	\$35,396	\$36,310	\$37,224	\$38,139	\$39,053	\$39,967	\$40,881	\$41,796	\$42,710
Year	2049	2050	2051	2052	2053	1st Peak - 2054	2055	2056	2nd Peak - 2057	2058
Projected Replacements			(\$798)			(\$15,444)			(\$798)	
Annual Deposit	\$914	\$914	\$914	\$914	\$914	\$914	\$266	\$266	\$266	\$266
End of Year Balance	\$12,871	\$13,785	\$13,902	\$14,816	\$15,730	\$1,200	\$1,466	\$1,732	\$1,200	\$1,200
Cumulative Expenditures	(\$30,753)	(\$30,753)	(\$31,551)	(\$31,551)	(\$31,551)	(\$46,995)	(\$46,995)	(\$46,995)	(\$47,793)	(\$47,793)
Cumulative Receipts	\$43,624	\$44,538	\$45,452	\$46,367	\$47,281	\$48,195	\$48,461	\$48,727	\$48,993	\$48,993

## 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.

### **\$914** 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.

### **\$948** 2020 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2020 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$16,197 on January 1, 2020.
- No Expenditures from Replacement Reserves in 2019.

- Construction Cost Inflation of 2.30 percent in 2019.

The \$948 inflation adjusted funding in 2020 is a 3.69 percent increase over the non-inflation adjusted 2020 funding of \$914.

### **\$980** 2021 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2021 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$17,145 on January 1, 2021.
- No Expenditures from Replacement Reserves in 2020.

- Construction Cost Inflation of 2.30 percent in 2020.

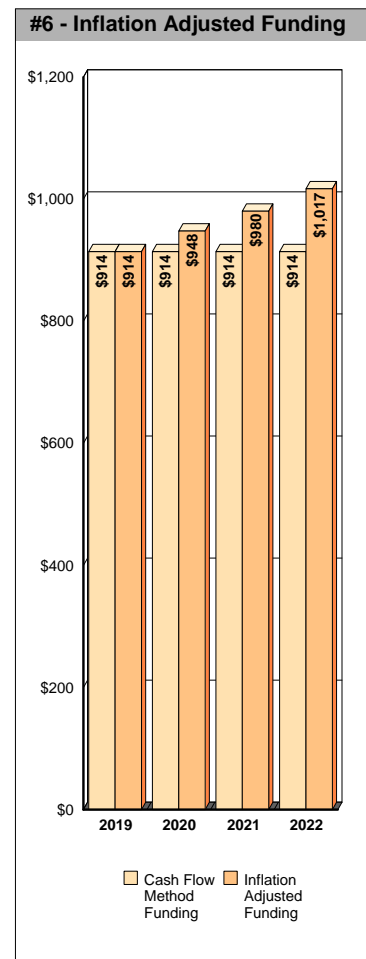
The \$980 inflation adjusted funding in 2021 is a 7.25 percent increase over the non-inflation adjusted 2021 funding of \$914.

### **\$1,017** 2022 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2022 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$17,291 on January 1, 2022.
- All 2021 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than \$835.
- Construction Cost Inflation of 2.30 percent in 2021.

The \$1,017 inflation adjusted funding in 2022 is a 11.27 percent increase over the non-inflation adjusted funding of \$914.



## 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 \$157 on an average balance of \$15,740, \$167 on an average balance of \$16,671 in 2020, and \$172 on \$17,218 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 \$914 to \$757 (a 17.22 percent reduction), \$948 to \$781 in 2020 (a 17.59 percent reduction), and \$980 to \$808 in 2021 (a 17.56 percent reduction).

## REPLACEMENT RESERVE STUDY - SUPPLEMENTAL COMMENTS

- 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 4 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

PCV001 - Replacement Reserve Inventory identifies 12 items. Two types of items are identified, Projected Replacements and Excluded Items:

- **PROJECTED REPLACEMENTS.** 4 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 \$15,444. Replacements totaling \$47,793 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.** 8 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 12 items included in the PCV001 Replacement Reserve Inventory are divided into 4 major categories. Each category is printed on a separate page, Pages B3 to B5.
- **LEVEL OF SERVICE.** This Replacement Reserve Inventory has been developed in compliance with the standards established for a Level Two - Update (with site visit and on-site review), as defined by the National Reserve Study Standards, established in 1998 by Community Associations Institute, which states:

*Level II Studies are based entirely on the component inventory from a prior study. This information is adjusted to reflect changes to the inventory that are provided by the Association, and the quantities are adjusted accordingly from field measurement and/or quantity takeoffs from to-scale drawings that are made available to us. The condition of all components is ascertained from a site visit and the visual inspection of each component by the analyst. The Remaining Economic Life and replacement cost of components are provided based in part on these observations. The fund status and Funding Plan are derived from analysis of this data.*



**REPLACEMENT RESERVE INVENTORY - GENERAL INFORMATION (cont'd)**

- **INVENTORY DATA.** Each of the 4 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 8 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.



**PINE CREEK - WILLOW GLEN (shared driveway)**

**PROJECTED REPLACEMENTS**

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
1	Asphalt pavement, mill & overlay	sf	7,420	\$1.70	24	11	\$12,614
2	Asphalt pavement, seal coat	sf	7,420	\$0.20	6	5	\$1,484
3	Asphalt pavement, crack seal	sf	371	\$2.15	3	2	\$798
4	Concrete Curb & Gutter (6%)	lf	16	\$34.50	6	5	\$549

PINE CREEK - WILLOW GLEN (shared driveway) - Replacement Costs - Subtotal \$15,444

**PINE CREEK - WILLOW GLEN (shared driveway)**

**COMMENTS**

- We have assumed that the Association will replace the asphalt pavement by the installation of a 2 inch thick overlay. The pavement will need to be milled prior to the installation of the overlay. Milling and the cost of minor repairs (5 to 10 percent of the total area) to the base materials and bearing soils beneath the pavement are included in the cost shown above.

**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
	Numbering of parking spaces	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, sidewalks & curbs	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.

Intentionally Left Blank

## PROJECTED ANNUAL REPLACEMENTS GENERAL INFORMATION

CALENDAR OF ANNUAL REPLACEMENTS. The 4 Projected Replacements in the PCV001 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 forty 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 PCV001 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	FY 2019 - STUDY YEAR	\$	Item	FY 2020 - YEAR 2	\$	Item	FY 2021 - YEAR 3	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$798
						Total Scheduled Replacements		\$798
Item	FY 2022 - YEAR 4	\$	Item	FY 2023 - YEAR 5	\$	Item	FY 2024 - YEAR 6	\$
No Scheduled Replacements			No Scheduled Replacements			2	Asphalt pavement, seal coat	\$1,484
						3	Asphalt pavement, crack se:	\$798
						4	Concrete Curb & Gutter (6%	\$549
						Total Scheduled Replacements		\$2,830
Item	FY 2025 - YEAR 7	\$	Item	FY 2026 - YEAR 8	\$	Item	FY 2027 - YEAR 9	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$798
						Total Scheduled Replacements		\$798
Item	FY 2028 - YEAR 10	\$	Item	FY 2029 - YEAR 11	\$	Item	FY 2030 - YEAR 12	\$
No Scheduled Replacements			No Scheduled Replacements			1	Asphalt pavement, mill & ovi	\$12,614
						2	Asphalt pavement, seal coat	\$1,484
						3	Asphalt pavement, crack se:	\$798
						4	Concrete Curb & Gutter (6%	\$549
						Total Scheduled Replacements		\$15,444
Item	FY 2031 - YEAR 13	\$	Item	FY 2032 - YEAR 14	\$	Item	FY 2033 - YEAR 15	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$798
						Total Scheduled Replacements		\$798

**PROJECTED REPLACEMENTS - YEARS SIXTEEN TO THIRTY**

Item	FY 2034 - YEAR 16	\$	Item	FY 2035 - YEAR 17	\$	Item	FY 2036 - YEAR 18	\$
No Scheduled Replacements			No Scheduled Replacements			2	Asphalt pavement, seal coat	\$1,484
						3	Asphalt pavement, crack se:	\$798
						4	Concrete Curb & Gutter (6%	\$549
						Total Scheduled Replacements		\$2,830
Item	FY 2037 - YEAR 19	\$	Item	FY 2038 - YEAR 20	\$	Item	FY 2039 - YEAR 21	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$798
						Total Scheduled Replacements		\$798
Item	FY 2040 - YEAR 22	\$	Item	FY 2041 - YEAR 23	\$	Item	FY 2042 - YEAR 24	\$
No Scheduled Replacements			No Scheduled Replacements			2	Asphalt pavement, seal coat	\$1,484
						3	Asphalt pavement, crack se:	\$798
						4	Concrete Curb & Gutter (6%	\$549
						Total Scheduled Replacements		\$2,830
Item	FY 2043 - YEAR 25	\$	Item	FY 2044 - YEAR 26	\$	Item	FY 2045 - YEAR 27	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$798
						Total Scheduled Replacements		\$798
Item	FY 2046 - YEAR 28	\$	Item	FY 2047 - YEAR 29	\$	Item	FY 2048 - YEAR 30	\$
No Scheduled Replacements			No Scheduled Replacements			2	Asphalt pavement, seal coat	\$1,484
						3	Asphalt pavement, crack se:	\$798
						4	Concrete Curb & Gutter (6%	\$549
						Total Scheduled Replacements		\$2,830

**PROJECTED REPLACEMENTS - YEARS THIRTY-ONE TO FORTY-FIVE**

Item	FY 2049 - YEAR 31	\$	Item	FY 2050 - YEAR 32	\$	Item	FY 2051 - YEAR 33	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$798
						Total Scheduled Replacements		\$798
Item	FY 2052 - YEAR 34	\$	Item	FY 2053 - YEAR 35	\$	Item	FY 2054 - YEAR 36	\$
No Scheduled Replacements			No Scheduled Replacements			1	Asphalt pavement, mill & ov:	\$12,614
						2	Asphalt pavement, seal coal	\$1,484
						3	Asphalt pavement, crack se:	\$798
						4	Concrete Curb & Gutter (6%	\$549
						Total Scheduled Replacements		\$15,444
Item	FY 2055 - YEAR 37	\$	Item	FY 2056 - YEAR 38	\$	Item	FY 2057 - YEAR 39	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$798
						Total Scheduled Replacements		\$798
Item	FY 2058 - YEAR 40	\$	Item	2059 (beyond Study Period)	\$	Item	2060 (beyond Study Period)	\$
No Scheduled Replacements			No Scheduled Replacements			2	Asphalt pavement, seal coal	\$1,484
						3	Asphalt pavement, crack se:	\$798
						4	Concrete Curb & Gutter (6%	\$549
						Total Scheduled Replacements		\$2,830
Item	Y 2061 (beyond Study Period)	\$	Item	2062 (beyond Study Period)	\$	Item	2063 (beyond Study Period)	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$798
						Total Scheduled Replacements		\$798



## CASH FLOW METHOD ACCOUNTING SUMMARY

This PCV001 - Cash Flow Method Accounting Summary is an attachment to the PCV001 - Replacement Reserve Study dated June 15, 2019 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 4 Projected Replacements listed in the PCV001 Replacement Reserve Inventory has been assigned to one of 1 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 \$15,283 Beginning Balance (at the start of the Study Year) and the \$2,743 of additional Replacement Reserve Funding in 2019 through 2021 (as calculated in the Replacement Reserve Analysis) to each of the 4 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 \$15,283 Beginning Balance to the Projected Replacements by Chronological Allocation.
  - Allocation of the \$2,743 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 \$15,283 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 PCV001 the Beginning Balance funds all Scheduled Replacements in the Study Year through 2029 and provides partial funding (70%) of replacements scheduled in 2030.
  - The next step is the allocation of the \$914 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 PCV001 the Beginning Balance and the 2019 Replacement Reserve Funding, funds replacements through 2029 and partial funds (76.2%) replacements in 2030.
  - 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 4 Projected Replacements included in the PCV001 Replacement Reserve Inventory has been assigned to one of the 1 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 \$15,283 as of the first day of the Study Year, January 1, 2019.
- Total reserve funding (including the Beginning Balance) of \$16,197 in the Study Year.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.

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	
PINE CREEK - WILLOW GLEN (shared drive)	3 to 24 years	2 to 11 years	\$15,444	\$15,283	\$914		\$16,197	

### 2020 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 4 Projected Replacements included in the PCV001 Replacement Reserve Inventory has been assigned to one of the 1 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 \$16,197 on January 1, 2020.
- Total reserve funding (including the Beginning Balance) of \$17,112 from 2019 through 2020.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.

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	
PINE CREEK - WILLOW GLEN (shared drive)	3 to 24 years	1 to 10 years	\$15,444	\$16,197	\$914		\$17,112	

### 2021 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 4 Projected Replacements included in the PCV001 Replacement Reserve Inventory has been assigned to one of the 1 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 \$17,112 on January 1, 2021.
- Total Replacement Reserve funding (including the Beginning Balance) of \$18,026 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 \$798.

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	
PINE CREEK - WILLOW GLEN (shared drive)	3 to 24 years	0 to 9 years	\$15,444	\$17,112	\$914	(\$798)	\$17,228	

### CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CF4 below details the allocation of the \$15,283 Beginning Balance, as reported by the Association and the \$2,743 of Replacement Reserve Funding calculated by the Cash Flow Method from 2019 to 2021, to the 4 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 \$15,283 on January 1, 2019.
- Replacement Reserves on Deposit totaling \$16,197 on January 1, 2020.
- Replacement Reserves on Deposit totaling \$17,112 on January 1, 2021.
- Total Replacement Reserve funding (including the Beginning Balance) of \$18,026 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 \$798.

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.

#### CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CF4

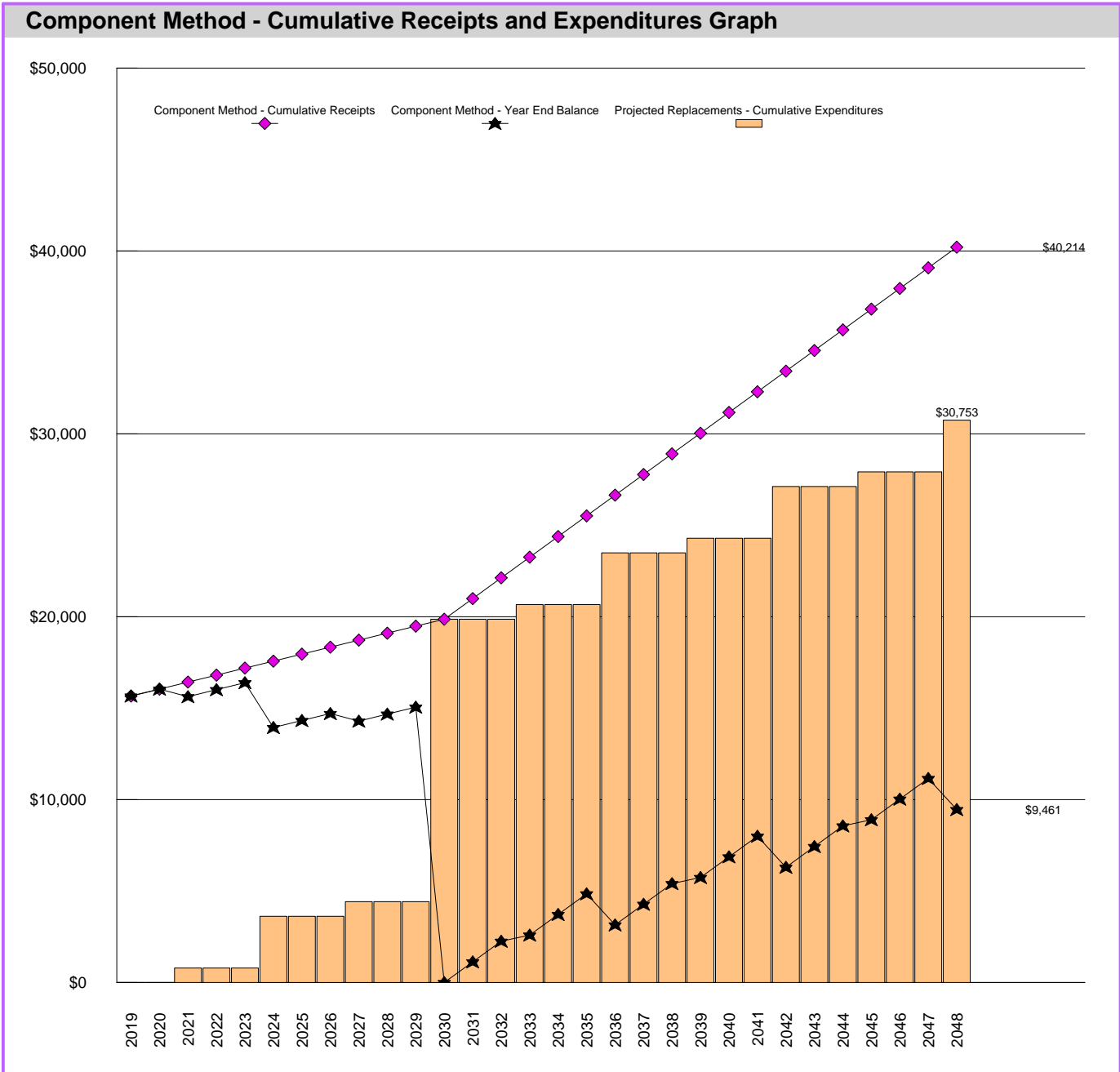
Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2019 Reserve Funding	2019 Projected Replacements	2019 End of Year Balance	2020 Reserve Funding	2020 Projected Replacements	2020 End of Year Balance	2021 Reserve Funding	2021 Projected Replacements	2021 End of Year Balance
	PINE CREEK - WILLOW GLEN (sha											
1	Asphalt pavement, mill & overlay	12,614	8,868	747		9,615	747		10,361	747		11,108
2	Asphalt pavement, seal coat	1,484	2,527	88		2,615	88		2,703	88		2,791
3	Asphalt pavement, crack seal	798	2,954	47		3,001	47		3,048	47	(798)	2,298
4	Concrete Curb & Gutter (6%)	549	934	32		967	32		999	32		1,032

### COMPONENT METHOD



#### \$382 COMPONENT METHOD RECOMMENDED ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2019.

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 4 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 (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 4 Projected Replacements. The total, \$6,307, 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 (\$15,283) by the Current Funding Objective (\$6,307). At PCV001 the Funding Percentage is 242.3%
- **Allocation of the Beginning Balance.** The Beginning Balance is divided among the 4 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 242.3 percent funded, there is \$1,939 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 \$382, the Component Method Recommended Annual Funding of Replacement Reserves in the Study Year (2019).

In our fence example, the \$1,939 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 -\$469. Next year, the deposit remains -\$469, 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	\$15,283									
Recommended annual funding	\$382	\$382	\$382	\$382	\$382	\$382	\$382	\$382	\$382	\$382
Interest on reserves										
Expenditures			\$798			\$2,830			\$798	
Year end balance	\$15,665	\$16,048	\$15,632	\$16,014	\$16,397	\$13,949	\$14,331	\$14,713	\$14,298	\$14,680
Cumulative Expenditures			\$798	\$798	\$798	\$3,628	\$3,628	\$3,628	\$4,426	\$4,426
Cumulative Receipts	\$15,665	\$16,048	\$16,430	\$16,812	\$17,194	\$17,576	\$17,959	\$18,341	\$18,723	\$19,105
Year	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Recommended annual funding	\$382	\$382	\$1,130	\$1,130	\$1,130	\$1,130	\$1,130	\$1,130	\$1,130	\$1,130
Interest on reserves										
Expenditures		\$15,444			\$798			\$2,830		
Year end balance	\$15,062		\$1,130	\$2,260	\$2,593	\$3,723	\$4,853	\$3,154	\$4,284	\$5,414
Cumulative Expenditures	\$4,426	\$19,870	\$19,870	\$19,870	\$20,667	\$20,667	\$20,667	\$23,498	\$23,498	\$23,498
Cumulative Receipts	\$19,487	\$19,870	\$21,000	\$22,130	\$23,260	\$24,391	\$25,521	\$26,651	\$27,781	\$28,912
Year	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Recommended annual funding	\$1,130	\$1,130	\$1,130	\$1,130	\$1,130	\$1,130	\$1,130	\$1,130	\$1,130	\$1,130
Interest on reserves										
Expenditures	\$798			\$2,830				\$798		\$2,830
Year end balance	\$5,747	\$6,877	\$8,007	\$6,307	\$7,437	\$8,567	\$8,900	\$10,030	\$11,160	\$9,461
Cumulative Expenditures	\$24,295	\$24,295	\$24,295	\$27,125	\$27,125	\$27,125	\$27,923	\$27,923	\$27,923	\$30,753
Cumulative Receipts	\$30,042	\$31,172	\$32,302	\$33,432	\$34,563	\$35,693	\$36,823	\$37,953	\$39,084	\$40,214

## COMPONENT METHOD ACCOUNTING SUMMARY

This PCV001 - Component Method Accounting Summary is an attachment to the PCV001 - Replacement Reserve Study dated June 15, 2019 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 4 Projected Replacements listed in the PCV001 Replacement Reserve Inventory has been assigned to one of 1 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 \$15,283 Beginning Balance (at the start of the Study Year) and the \$1,147 of additional Replacement Reserve funding from 2019 to 2021 (as calculated in the Replacement Reserve Analysis) to each of the 4 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 \$15,283 Beginning Balance to the Projected Replacements by the Component Method.
  - Allocation of the \$1,147 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 4 Projected Replacements included in the PCV001 Replacement Reserve Inventory has been assigned to one of the 1 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 \$15,283 as of the first day of the Study Year, January 1, 2019.
- Total reserve funding (including the Beginning Balance) of \$15,665 in the Study Year.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.

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
PINE CREEK - WILLOW GLEN (shared drive)	3 to 24 years	2 to 11 years	\$15,444	\$15,283	\$382		\$15,665

### 2020 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 4 Projected Replacements included in the PCV001 Replacement Reserve Inventory has been assigned to one of the 1 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 \$15,665 on January 1, 2020.
- Total reserve funding (including the Beginning Balance) of \$16,048 from 2019 through 2020.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.

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	
PINE CREEK - WILLOW GLEN (shared drive)	3 to 24 years	1 to 10 years	\$15,444	\$15,665	\$382		\$16,048	

### 2021 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 4 Projected Replacements included in the PCV001 Replacement Reserve Inventory has been assigned to one of the 1 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 \$16,048 on January 1, 2021.
- Total Replacement Reserve funding (including the Beginning Balance) of \$16,430 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 \$798.

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
PINE CREEK - WILLOW GLEN (shared drive)	3 to 24 years	0 to 9 years	\$15,444	\$16,048	\$382	\$798	\$15,632

### COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CM4 below details the allocation of the \$15,283 Beginning Balance, as reported by the Association and the \$1,147 of Replacement Reserve Funding calculated by the Cash Flow Method from 2019 to 2021, to the 4 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 \$15,283 on January 1, 2019.
- Replacement Reserves on Deposit totaling \$15,665 on January 1, 2020.
- Replacement Reserves on Deposit totaling \$16,048 on January 1, 2021.
- Total Replacement Reserve funding (including the Beginning Balance) of \$16,430 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 \$798.

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
	PINE CREEK - WILLOW GLEN (sha											
1	Asphalt pavement, mill & overlay	12,614	15,283	(222)		15,061	(222)		14,838	(222)		14,616
2	Asphalt pavement, seal coat	1,484		247		247	247		495	247		742
3	Asphalt pavement, crack seal	798		266		266	266		532	266	(798)	
4	Concrete Curb & Gutter (6%)	549		91		91	91		183	91		274

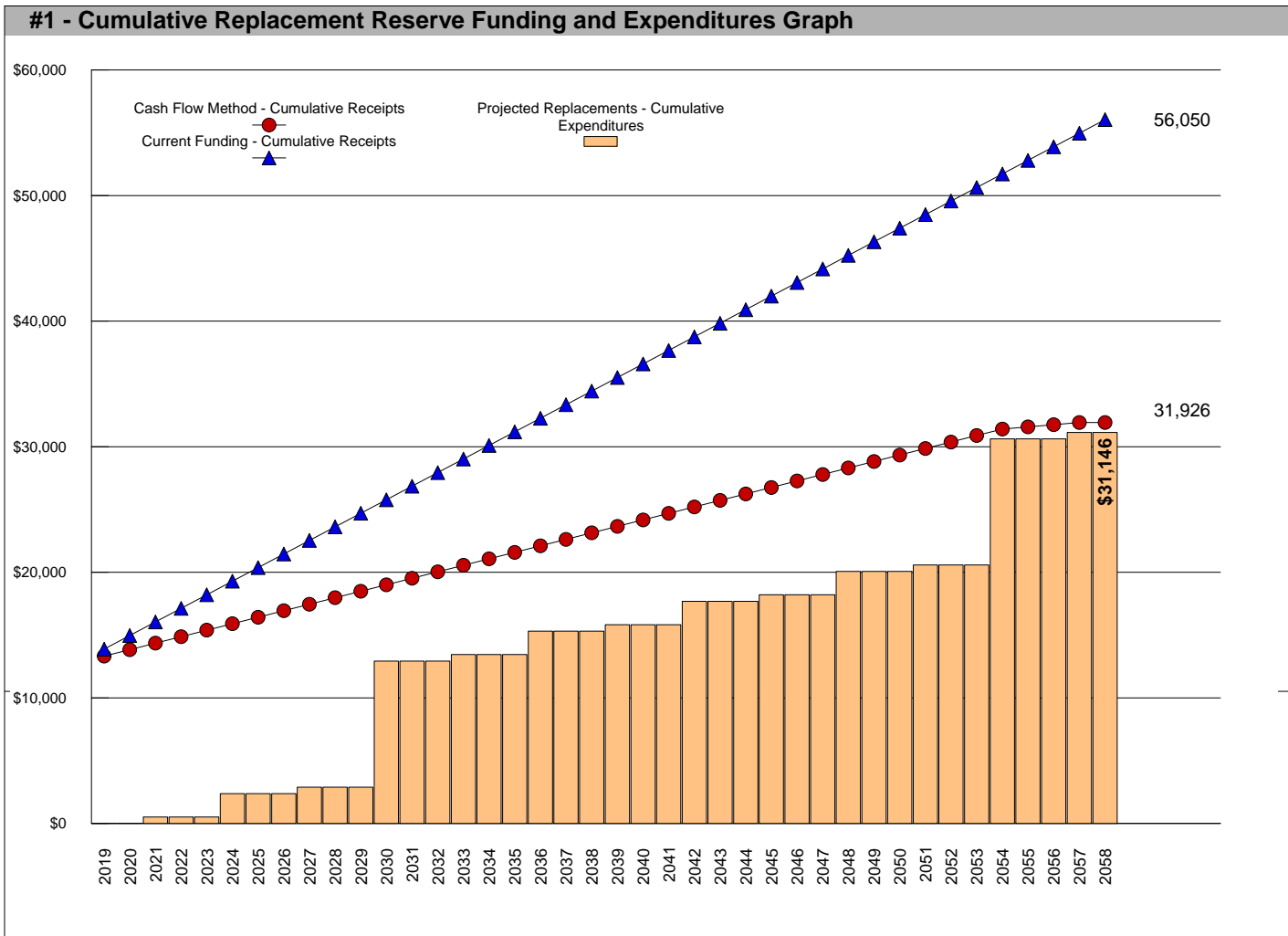
## EXECUTIVE SUMMARY

The PCV002 Replacement Reserve Analysis uses the Cash Flow Method (CFM) to calculate Replacement Reserve funding for the periodic replacement of the 4 Projected Replacements identified in the Replacement Reserve Inventory.

### **\$517** RECOMMENDED REPLACEMENT RESERVE FUNDING FOR THE STUDY YEAR, 2019

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.

PCV002 reports a Starting Balance of \$12,810 and Annual Funding totaling \$1,081. Current funding is greater than the funding necessary for the \$31,146 of Projected Replacements scheduled in the Replacement Reserve Inventory over the 40-year Study Period. See Page A3 for more detailed information.



The Current Funding Objective as calculated by the Component Method (Fully Funded) is \$4,089 making the reserve account 313.3% funded. See the Appendix for more information on this method.

## REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION

The PCV002 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.

### \$12,810 | STARTING BALANCE

The Association reports Replacement Reserves on Deposit totaling \$12,810 at the start of the Study Year.

### Level Two | LEVEL OF SERVICE

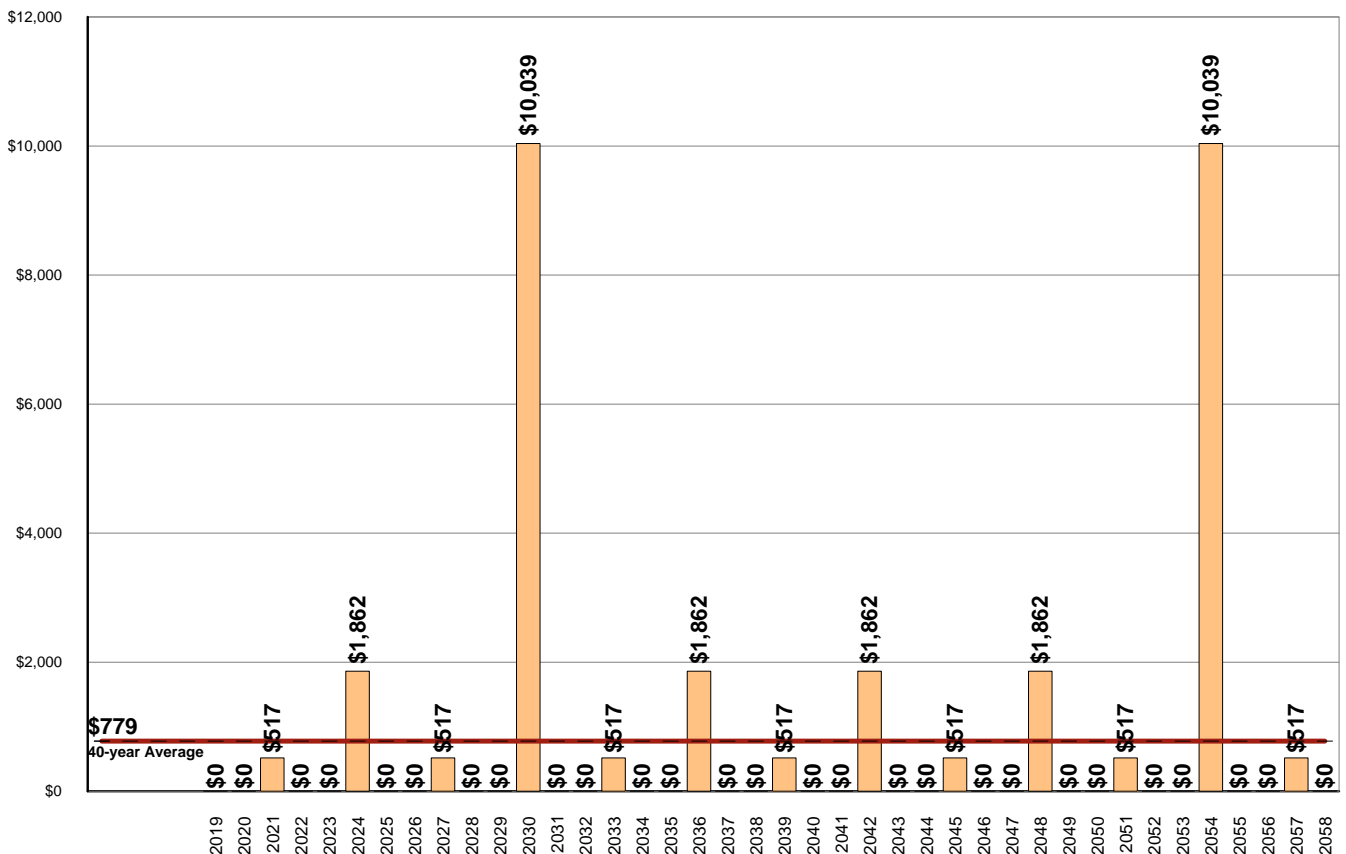
The Replacement Reserve Inventory has been developed in compliance with the National Reserve Study Standards for a Level Two Study, as defined by the Community Associations Institute (CAI).

### \$31,146 | REPLACEMENT RESERVE INVENTORY - PROJECTED REPLACEMENTS

The PCV002 Replacement Reserve Inventory identifies 4 items that will require periodic replacement, that are to be funded from Replacement Reserves. We estimate the cost of these replacements will be \$31,146 over the 40-year Study Period. The Projected Replacements are divided into 2 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 \$779. 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 \$31,146 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.

<b>#3 - Table of Annual Expenditures and Current Funding Data - Years 1 through 40</b>										
Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Starting Balance	\$12,810									
Projected Replacements			(\$517)			(\$1,862)			(\$517)	
Annual Deposit	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081
End of Year Balance	\$13,891	\$14,972	\$15,536	\$16,617	\$17,698	\$16,917	\$17,998	\$19,079	\$19,643	\$20,724
Cumulative Expenditures			(\$517)	(\$517)	(\$517)	(\$2,379)	(\$2,379)	(\$2,379)	(\$2,896)	(\$2,896)
Cumulative Receipts	\$13,891	\$14,972	\$16,053	\$17,134	\$18,215	\$19,296	\$20,377	\$21,458	\$22,539	\$23,620
Year	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Projected Replacements		(\$10,039)			(\$517)			(\$1,862)		
Annual Deposit	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081
End of Year Balance	\$21,805	\$12,847	\$13,928	\$15,009	\$15,573	\$16,654	\$17,735	\$16,954	\$18,035	\$19,116
Cumulative Expenditures	(\$2,896)	(\$12,935)	(\$12,935)	(\$12,935)	(\$13,452)	(\$13,452)	(\$13,452)	(\$15,314)	(\$15,314)	(\$15,314)
Cumulative Receipts	\$24,701	\$25,782	\$26,863	\$27,944	\$29,025	\$30,106	\$31,187	\$32,268	\$33,349	\$34,430
Year	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Projected Replacements	(\$517)			(\$1,862)			(\$517)			(\$1,862)
Annual Deposit	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081
End of Year Balance	\$19,680	\$20,761	\$21,842	\$21,061	\$22,142	\$23,223	\$23,787	\$24,868	\$25,949	\$25,168
Cumulative Expenditures	(\$15,831)	(\$15,831)	(\$15,831)	(\$17,693)	(\$17,693)	(\$17,693)	(\$18,210)	(\$18,210)	(\$18,210)	(\$20,073)
Cumulative Receipts	\$35,511	\$36,592	\$37,673	\$38,754	\$39,835	\$40,916	\$41,997	\$43,078	\$44,159	\$45,240
Year	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058
Projected Replacements			(\$517)			(\$10,039)			(\$517)	
Annual Deposit	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081	\$1,081
End of Year Balance	\$26,249	\$27,330	\$27,893	\$28,974	\$30,055	\$21,097	\$22,178	\$23,259	\$23,823	\$24,904
Cumulative Expenditures	(\$20,073)	(\$20,073)	(\$20,590)	(\$20,590)	(\$20,590)	(\$30,629)	(\$30,629)	(\$30,629)	(\$31,146)	(\$31,146)
Cumulative Receipts	\$46,321	\$47,402	\$48,483	\$49,564	\$50,645	\$51,726	\$52,807	\$53,888	\$54,969	\$56,050

**EVALUATION OF CURRENT FUNDING**

The evaluation of Current Funding (Starting Balance of \$12,810 & annual funding of \$1,081), 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 4 Projected Replacements identified in the Replacement Reserve Inventory and that the Association will continue Annual Funding of \$1,081 throughout the 40-year Study Period.

The Component Method (provided in the Appendix) is a little used Replacement Reserve funding methodology generally recognized for calculating MAXIMUM rational funding. The \$1,081 annual funding is approximately 10,361 percent of the \$10 Component Method recommended funding in 2019, the Study Year. Evaluation of the 4 Projected Replacements calculates an average annual expenditure over the next 40 years of \$779. Annual funding of \$1,081 is 139 percent of the average annual expenditure.

In summary, Current Funding as reported by the Association and outlined above, is greater than what is needed to provide timely and adequate funding for the \$31,146 of Projected Replacements scheduled in the Replacement Reserve Inventory over the 40-year Study Period.

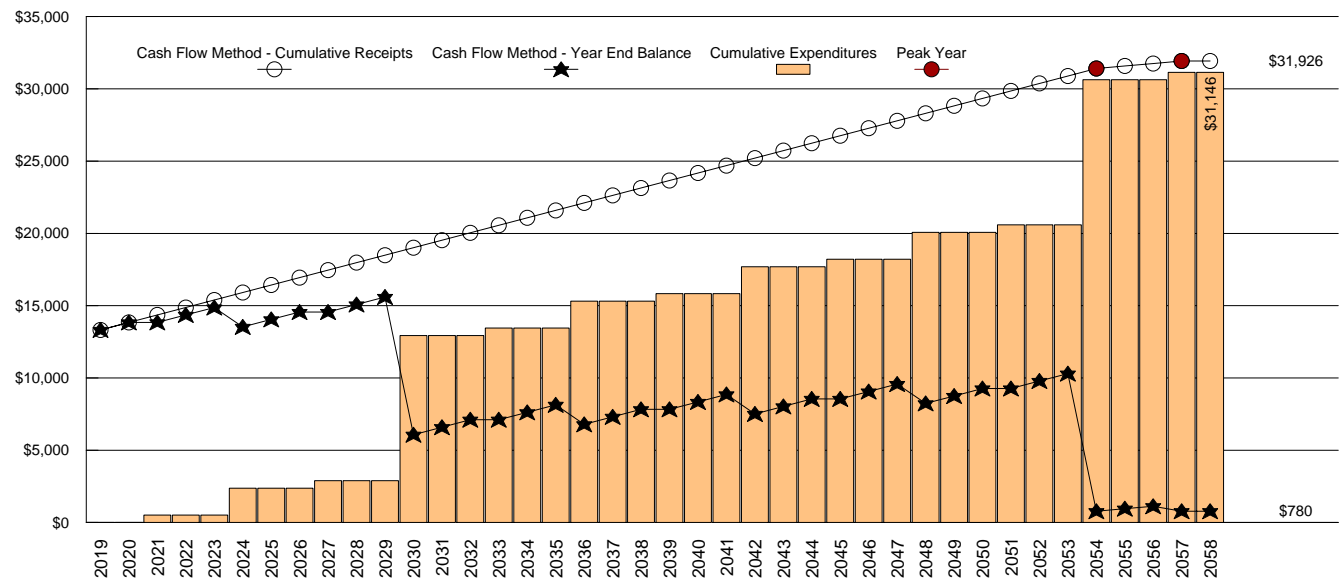
### CASH FLOW METHOD FUNDING

#### \$517 RECOMMENDED REPLACEMENT RESERVE FUNDING FOR 2019

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 2054 with Replacement Reserves on Deposit dropping to the Minimum Balance after the completion of \$30,629 of replacements from 2019 to 2054. Recommended funding declines from \$517 in 2054 to \$172 in 2055. Peak Years are identified in Chart 4 and Table 5.
- **Minimum Balance.** The calculations assume a Minimum Balance of \$780 in Replacement Reserves. This is approx. 12 months of average expenditures based on the \$779, 40-year average annual expenditure.
- **Cash Flow Method Study Period.** Cash Flow Method calculates funding for \$31,146 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

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Year Starting Balance	\$12,810									
Projected Replacements			(\$517)			(\$1,862)			(\$517)	
Annual Deposit	\$517	\$517	\$517	\$517	\$517	\$517	\$517	\$517	\$517	\$517
End of Year Balance	\$13,327	\$13,843	\$13,843	\$14,359	\$14,876	\$15,393	\$15,910	\$16,426	\$16,943	\$17,460
Cumulative Expenditures			\$517	\$517	\$517	\$517	\$517	\$517	\$517	\$517
Cumulative Receipts	\$13,327	\$13,843	\$14,360	\$14,877	\$15,393	\$15,910	\$16,426	\$16,943	\$17,460	\$17,976
Year	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Projected Replacements		(\$10,039)			(\$517)			(\$1,862)		
Annual Deposit	\$517	\$517	\$517	\$517	\$517	\$517	\$517	\$517	\$517	\$517
End of Year Balance	\$15,597	\$6,074	\$6,591	\$7,108	\$7,624	\$8,140	\$8,656	\$9,172	\$9,688	\$10,204
Cumulative Expenditures	(\$2,896)	(\$12,935)	(\$12,935)	(\$12,935)	(\$12,935)	(\$12,935)	(\$12,935)	(\$12,935)	(\$12,935)	(\$12,935)
Cumulative Receipts	\$18,493	\$19,010	\$19,526	\$20,043	\$20,559	\$21,076	\$21,593	\$22,109	\$22,626	\$23,143
Year	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Projected Replacements				(\$1,862)			(\$517)			(\$1,862)
Annual Deposit	\$517	\$517	\$517	\$517	\$517	\$517	\$517	\$517	\$517	\$517
End of Year Balance	\$7,828	\$8,344	\$8,861	\$9,377	\$9,893	\$10,409	\$10,925	\$11,441	\$11,957	\$12,473
Cumulative Expenditures	(\$15,831)	(\$15,831)	(\$15,831)	(\$17,693)	(\$17,693)	(\$17,693)	(\$17,693)	(\$17,693)	(\$17,693)	(\$17,693)
Cumulative Receipts	\$23,659	\$24,176	\$24,692	\$25,209	\$25,726	\$26,242	\$26,759	\$27,276	\$27,792	\$28,309
Year	2049	2050	2051	2052	2053	1st Peak - 2054	2055	2056	2nd Peak - 2057	2058
Projected Replacements			(\$517)			(\$10,039)			(\$517)	
Annual Deposit	\$517	\$517	\$517	\$517	\$517	\$517	\$172	\$172	\$172	\$780
End of Year Balance	\$8,753	\$9,270	\$9,786	\$10,302	\$10,818	\$11,334	\$11,850	\$12,366	\$12,882	\$13,398
Cumulative Expenditures	(\$20,073)	(\$20,073)	(\$20,590)	(\$20,590)	(\$20,590)	(\$30,629)	(\$30,629)	(\$30,629)	(\$31,146)	(\$31,146)
Cumulative Receipts	\$28,825	\$29,342	\$29,859	\$30,375	\$30,892	\$31,409	\$31,926	\$31,926	\$31,926	\$31,926



## 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.

### **\$517** 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.

### **\$538** 2020 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2020 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$13,327 on January 1, 2020.
- No Expenditures from Replacement Reserves in 2019.

- Construction Cost Inflation of 2.30 percent in 2019.

The \$538 inflation adjusted funding in 2020 is a 4.12 percent increase over the non-inflation adjusted 2020 funding of \$517.

### **\$560** 2021 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2021 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$13,865 on January 1, 2021.
- No Expenditures from Replacement Reserves in 2020.

- Construction Cost Inflation of 2.30 percent in 2020.

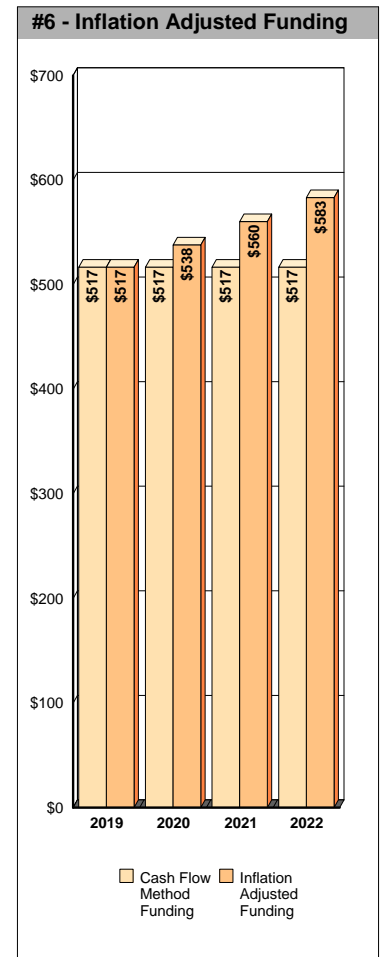
The \$560 inflation adjusted funding in 2021 is a 8.45 percent increase over the non-inflation adjusted 2021 funding of \$517.

### **\$583** 2022 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2022 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$13,884 on January 1, 2022.
- All 2021 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than \$541.
- Construction Cost Inflation of 2.30 percent in 2021.

The \$583 inflation adjusted funding in 2022 is a 12.87 percent increase over the non-inflation adjusted funding of \$517.



## 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 \$131 on an average balance of \$13,068, \$136 on an average balance of \$13,596 in 2020, and \$139 on \$13,874 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 \$517 to \$386 (a 25.30 percent reduction), \$538 to \$402 in 2020 (a 25.28 percent reduction), and \$560 to \$422 in 2021 (a 24.76 percent reduction).

## REPLACEMENT RESERVE STUDY - SUPPLEMENTAL COMMENTS

- 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 4 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

PCV002 - Replacement Reserve Inventory identifies 4 Projected Replacements.

- **PROJECTED REPLACEMENTS.** 4 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 \$10,039. Replacements totaling \$31,146 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.** None of the items included in the Replacement Reserve Inventory are 'Excluded Items'. Multiple categories of items 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.

- **CATEGORIES.** The 4 items included in the PCV002 Replacement Reserve Inventory are divided into 2 major categories. Each category is printed on a separate page, Pages B3 to B3.
- **LEVEL OF SERVICE.** This Replacement Reserve Inventory has been developed in compliance with the standards established for a Level Two - Update (with site visit and on-site review), as defined by the National Reserve Study Standards, established in 1998 by Community Associations Institute, which states:

*Level II Studies are based entirely on the component inventory from a prior study. This information is adjusted to reflect changes to the inventory that are provided by the Association, and the quantities are adjusted accordingly from field measurement and/or quantity takeoffs from to-scale drawings that are made available to us. The condition of all components is ascertained from a site visit and the visual inspection of each component by the analyst. The Remaining Economic Life and replacement cost of components are provided based in part on these observations. The fund status and Funding Plan are derived from analysis of this data.*

## REPLACEMENT RESERVE INVENTORY - GENERAL INFORMATION (cont'd)

- **INVENTORY DATA.** Each of the 4 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.

- **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.

**PINE CREEK - GLEN ARBOR (shared driveway)**

**PROJECTED REPLACEMENTS**

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
1	Asphalt pavement, mill & overlay	sf	4,810	\$1.70	24	11	\$8,177
2	Asphalt pavement, seal coat	sf	4,810	\$0.20	6	5	\$962
3	Asphalt pavement, crack seal	sf	241	\$2.15	3	2	\$517
4	Concrete Curb & Gutter (6%)	lf	11	\$34.50	6	5	\$383
PINE CREEK - GLEN ARBOR (shared driveway) - Replacement Costs - Subtotal							\$10,039

**PINE CREEK - GLEN ARBOR (shared driveway)**

**COMMENTS**

- We have assumed that the Association will replace the asphalt pavement by the installation of a 2 inch thick overlay. The pavement will need to be milled prior to the installation of the overlay. Milling and the cost of minor repairs (5 to 10 percent of the total area) to the base materials and bearing soils beneath the pavement are included in the cost shown above.

Intentionally Left Blank

## PROJECTED ANNUAL REPLACEMENTS GENERAL INFORMATION

CALENDAR OF ANNUAL REPLACEMENTS. The 4 Projected Replacements in the PCV002 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 forty 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 PCV002 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	FY 2019 - STUDY YEAR	\$	Item	FY 2020 - YEAR 2	\$	Item	FY 2021 - YEAR 3	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$517
						Total Scheduled Replacements		\$517
Item	FY 2022 - YEAR 4	\$	Item	FY 2023 - YEAR 5	\$	Item	FY 2024 - YEAR 6	\$
No Scheduled Replacements			No Scheduled Replacements			2	Asphalt pavement, seal coat	\$962
						3	Asphalt pavement, crack se:	\$517
						4	Concrete Curb & Gutter (6%	\$383
						Total Scheduled Replacements		\$1,862
Item	FY 2025 - YEAR 7	\$	Item	FY 2026 - YEAR 8	\$	Item	FY 2027 - YEAR 9	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$517
						Total Scheduled Replacements		\$517
Item	FY 2028 - YEAR 10	\$	Item	FY 2029 - YEAR 11	\$	Item	FY 2030 - YEAR 12	\$
No Scheduled Replacements			No Scheduled Replacements			1	Asphalt pavement, mill & ovi	\$8,177
						2	Asphalt pavement, seal coat	\$962
						3	Asphalt pavement, crack se:	\$517
						4	Concrete Curb & Gutter (6%	\$383
						Total Scheduled Replacements		\$10,039
Item	FY 2031 - YEAR 13	\$	Item	FY 2032 - YEAR 14	\$	Item	FY 2033 - YEAR 15	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$517
						Total Scheduled Replacements		\$517



**PROJECTED REPLACEMENTS - YEARS SIXTEEN TO THIRTY**

Item	FY 2034 - YEAR 16	\$	Item	FY 2035 - YEAR 17	\$	Item	FY 2036 - YEAR 18	\$
No Scheduled Replacements			No Scheduled Replacements			2	Asphalt pavement, seal coat	\$962
						3	Asphalt pavement, crack se:	\$517
						4	Concrete Curb & Gutter (6%	\$383
						Total Scheduled Replacements		\$1,862
Item	FY 2037 - YEAR 19	\$	Item	FY 2038 - YEAR 20	\$	Item	FY 2039 - YEAR 21	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$517
						Total Scheduled Replacements		\$517
Item	FY 2040 - YEAR 22	\$	Item	FY 2041 - YEAR 23	\$	Item	FY 2042 - YEAR 24	\$
No Scheduled Replacements			No Scheduled Replacements			2	Asphalt pavement, seal coat	\$962
						3	Asphalt pavement, crack se:	\$517
						4	Concrete Curb & Gutter (6%	\$383
						Total Scheduled Replacements		\$1,862
Item	FY 2043 - YEAR 25	\$	Item	FY 2044 - YEAR 26	\$	Item	FY 2045 - YEAR 27	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$517
						Total Scheduled Replacements		\$517
Item	FY 2046 - YEAR 28	\$	Item	FY 2047 - YEAR 29	\$	Item	FY 2048 - YEAR 30	\$
No Scheduled Replacements			No Scheduled Replacements			2	Asphalt pavement, seal coat	\$962
						3	Asphalt pavement, crack se:	\$517
						4	Concrete Curb & Gutter (6%	\$383
						Total Scheduled Replacements		\$1,862

**PROJECTED REPLACEMENTS - YEARS THIRTY-ONE TO FORTY-FIVE**

Item	FY 2049 - YEAR 31	\$	Item	FY 2050 - YEAR 32	\$	Item	FY 2051 - YEAR 33	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$517
						Total Scheduled Replacements		\$517
Item	FY 2052 - YEAR 34	\$	Item	FY 2053 - YEAR 35	\$	Item	FY 2054 - YEAR 36	\$
No Scheduled Replacements			No Scheduled Replacements			1	Asphalt pavement, mill & ov:	\$8,177
						2	Asphalt pavement, seal coal	\$962
						3	Asphalt pavement, crack se:	\$517
						4	Concrete Curb & Gutter (6%	\$383
						Total Scheduled Replacements		\$10,039
Item	FY 2055 - YEAR 37	\$	Item	FY 2056 - YEAR 38	\$	Item	FY 2057 - YEAR 39	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$517
						Total Scheduled Replacements		\$517
Item	FY 2058 - YEAR 40	\$	Item	2059 (beyond Study Period)	\$	Item	2060 (beyond Study Period)	\$
No Scheduled Replacements			No Scheduled Replacements			2	Asphalt pavement, seal coal	\$962
						3	Asphalt pavement, crack se:	\$517
						4	Concrete Curb & Gutter (6%	\$383
						Total Scheduled Replacements		\$1,862
Item	Y 2061 (beyond Study Period)	\$	Item	2062 (beyond Study Period)	\$	Item	2063 (beyond Study Period)	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$517
						Total Scheduled Replacements		\$517

## CASH FLOW METHOD ACCOUNTING SUMMARY

This PCV002 - Cash Flow Method Accounting Summary is an attachment to the PCV002 - Replacement Reserve Study dated June 15, 2019 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 4 Projected Replacements listed in the PCV002 Replacement Reserve Inventory has been assigned to one of 1 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 \$12,810 Beginning Balance (at the start of the Study Year) and the \$1,550 of additional Replacement Reserve Funding in 2019 through 2021 (as calculated in the Replacement Reserve Analysis) to each of the 4 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 \$12,810 Beginning Balance to the Projected Replacements by Chronological Allocation.
  - Allocation of the \$1,550 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 \$12,810 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 PCV002 the Beginning Balance funds all Scheduled Replacements in the Study Year through 2029 and provides partial funding (99%) of replacements scheduled in 2030.
  - The next step is the allocation of the \$517 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 PCV002 the Beginning Balance and the 2019 Replacement Reserve Funding, funds replacements through 2032 and partial funds (75.7%) replacements in 2033.
  - 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 4 Projected Replacements included in the PCV002 Replacement Reserve Inventory has been assigned to one of the 1 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 \$12,810 as of the first day of the Study Year, January 1, 2019.
- Total reserve funding (including the Beginning Balance) of \$13,327 in the Study Year.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.

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	
PINE CREEK - GLEN ARBOR (shared drivew	3 to 24 years	2 to 11 years	\$10,039	\$12,810	\$517		\$13,327	

### 2020 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 4 Projected Replacements included in the PCV002 Replacement Reserve Inventory has been assigned to one of the 1 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 \$13,327 on January 1, 2020.
- Total reserve funding (including the Beginning Balance) of \$13,843 from 2019 through 2020.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.

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	
PINE CREEK - GLEN ARBOR (shared drivew	3 to 24 years	1 to 10 years	\$10,039	\$13,327	\$517		\$13,843	

### 2021 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 4 Projected Replacements included in the PCV002 Replacement Reserve Inventory has been assigned to one of the 1 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 \$13,843 on January 1, 2021.
- Total Replacement Reserve funding (including the Beginning Balance) of \$14,360 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 \$517.

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	
PINE CREEK - GLEN ARBOR (shared drivew	3 to 24 years	0 to 9 years	\$10,039	\$13,843	\$517	(\$517)	\$13,843	

### CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CF4 below details the allocation of the \$12,810 Beginning Balance, as reported by the Association and the \$1,550 of Replacement Reserve Funding calculated by the Cash Flow Method from 2019 to 2021, to the 4 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 \$12,810 on January 1, 2019.
- Replacement Reserves on Deposit totaling \$13,327 on January 1, 2020.
- Replacement Reserves on Deposit totaling \$13,843 on January 1, 2021.
- Total Replacement Reserve funding (including the Beginning Balance) of \$14,360 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 \$517.

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.

#### CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CF4

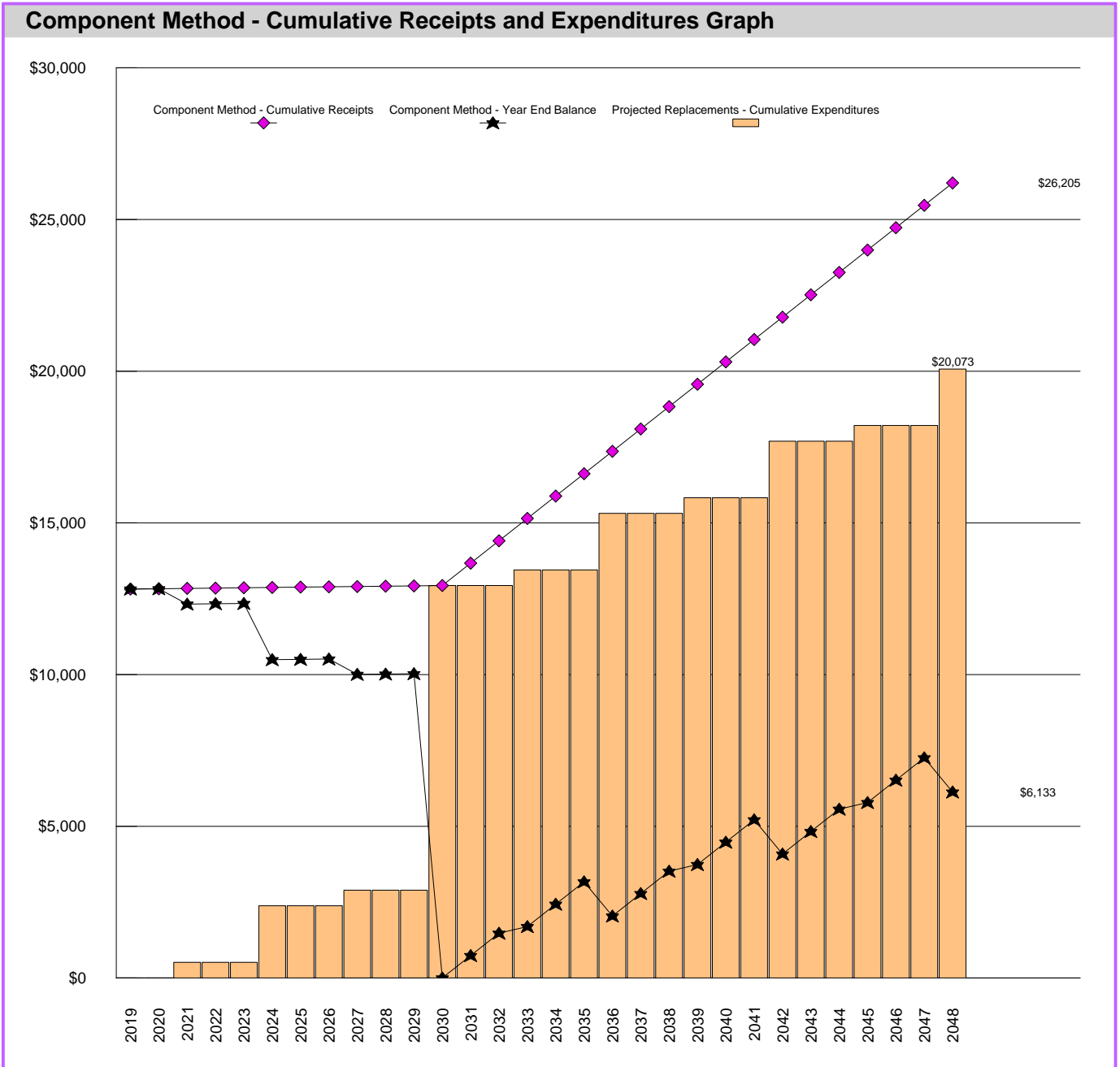
Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2019 Reserve Funding	2019 Projected Replacements	2019 End of Year Balance	2020 Reserve Funding	2020 Projected Replacements	2020 End of Year Balance	2021 Reserve Funding	2021 Projected Replacements	2021 End of Year Balance
	PINE CREEK - GLEN ARBOR (share											
1	Asphalt pavement, mill & overlay	8,177	8,075	102		8,177			8,177			8,177
2	Asphalt pavement, seal coat	962	1,912	12		1,924	202		2,126	267		2,393
3	Asphalt pavement, crack seal	517	2,062	398		2,460	234		2,694	143	(517)	2,320
4	Concrete Curb & Gutter (6%)	383	761	5		766	80		846	106		953

### COMPONENT METHOD



#### \$10 COMPONENT METHOD RECOMMENDED ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2019.

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 4 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 (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 4 Projected Replacements. The total, \$4,089, 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 (\$12,810) by the Current Funding Objective (\$4,089). At PCV002 the Funding Percentage is 313.3%
- **Allocation of the Beginning Balance.** The Beginning Balance is divided among the 4 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 313.3 percent funded, there is \$2,507 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 \$10, the Component Method Recommended Annual Funding of Replacement Reserves in the Study Year (2019).

In our fence example, the \$2,507 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 -\$753. Next year, the deposit remains -\$753, 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	\$12,810									
Recommended annual funding	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10
Interest on reserves										
Expenditures			\$517			\$1,862			\$517	
Year end balance	\$12,820	\$12,831	\$12,324	\$12,335	\$12,345	\$10,494	\$10,504	\$10,514	\$10,008	\$10,018
Cumulative Expenditures			\$517	\$517	\$517	\$2,379	\$2,379	\$2,379	\$2,896	\$2,896
Cumulative Receipts	\$12,820	\$12,831	\$12,841	\$12,852	\$12,862	\$12,873	\$12,883	\$12,893	\$12,904	\$12,914
Year	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Recommended annual funding	\$10	\$10	\$737	\$737	\$737	\$737	\$737	\$737	\$737	\$737
Interest on reserves										
Expenditures		\$10,039			\$517			\$1,862		
Year end balance	\$10,029	\$0	\$737	\$1,474	\$1,695	\$2,432	\$3,169	\$2,044	\$2,781	\$3,519
Cumulative Expenditures	\$2,896	\$12,935	\$12,935	\$12,935	\$13,452	\$13,452	\$13,452	\$15,314	\$15,314	\$15,314
Cumulative Receipts	\$12,925	\$12,935	\$13,672	\$14,410	\$15,147	\$15,884	\$16,621	\$17,359	\$18,096	\$18,833
Year	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Recommended annual funding	\$737	\$737	\$737	\$737	\$737	\$737	\$737	\$737	\$737	\$737
Interest on reserves										
Expenditures	\$517			\$1,862			\$517			\$1,862
Year end balance	\$3,739	\$4,476	\$5,213	\$4,089	\$4,826	\$5,563	\$5,783	\$6,520	\$7,258	\$6,133
Cumulative Expenditures	\$15,831	\$15,831	\$15,831	\$17,693	\$17,693	\$17,693	\$18,210	\$18,210	\$18,210	\$20,073
Cumulative Receipts	\$19,570	\$20,307	\$21,045	\$21,782	\$22,519	\$23,256	\$23,994	\$24,731	\$25,468	\$26,205

## COMPONENT METHOD ACCOUNTING SUMMARY

This PCV002 - Component Method Accounting Summary is an attachment to the PCV002 - Replacement Reserve Study dated June 15, 2019 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 4 Projected Replacements listed in the PCV002 Replacement Reserve Inventory has been assigned to one of 1 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 \$12,810 Beginning Balance (at the start of the Study Year) and the \$31 of additional Replacement Reserve funding from 2019 to 2021 (as calculated in the Replacement Reserve Analysis) to each of the 4 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 \$12,810 Beginning Balance to the Projected Replacements by the Component Method.
  - Allocation of the \$31 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 4 Projected Replacements included in the PCV002 Replacement Reserve Inventory has been assigned to one of the 1 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 \$12,810 as of the first day of the Study Year, January 1, 2019.
- Total reserve funding (including the Beginning Balance) of \$12,820 in the Study Year.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.

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	
PINE CREEK - GLEN ARBOR (shared drivew	3 to 24 years	2 to 11 years	\$10,039	\$12,810	\$10		\$12,820	

### 2020 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 4 Projected Replacements included in the PCV002 Replacement Reserve Inventory has been assigned to one of the 1 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 \$12,820 on January 1, 2020.
- Total reserve funding (including the Beginning Balance) of \$12,831 from 2019 through 2020.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.

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	
PINE CREEK - GLEN ARBOR (shared drivew	3 to 24 years	1 to 10 years	\$10,039	\$12,820	\$10		\$12,831	

### 2021 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 4 Projected Replacements included in the PCV002 Replacement Reserve Inventory has been assigned to one of the 1 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 \$12,831 on January 1, 2021.
- Total Replacement Reserve funding (including the Beginning Balance) of \$12,841 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 \$517.

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	
PINE CREEK - GLEN ARBOR (shared drivew	3 to 24 years	0 to 9 years	\$10,039	\$12,831	\$10	\$517	\$12,324	

### COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CM4 below details the allocation of the \$12,810 Beginning Balance, as reported by the Association and the \$31 of Replacement Reserve Funding calculated by the Cash Flow Method from 2019 to 2021, to the 4 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 \$12,810 on January 1, 2019.
- Replacement Reserves on Deposit totaling \$12,820 on January 1, 2020.
- Replacement Reserves on Deposit totaling \$12,831 on January 1, 2021.
- Total Replacement Reserve funding (including the Beginning Balance) of \$12,841 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 \$517.

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
	PINE CREEK - GLEN ARBOR (share											
1	Asphalt pavement, mill & overlay	8,177	12,810	(386)		12,424	(386)		12,038	(386)		11,652
2	Asphalt pavement, seal coat	962		160		160	160		321	160		481
3	Asphalt pavement, crack seal	517		172		172	172		345	172	(517)	
4	Concrete Curb & Gutter (6%)	383		64		64	64		128	64		191

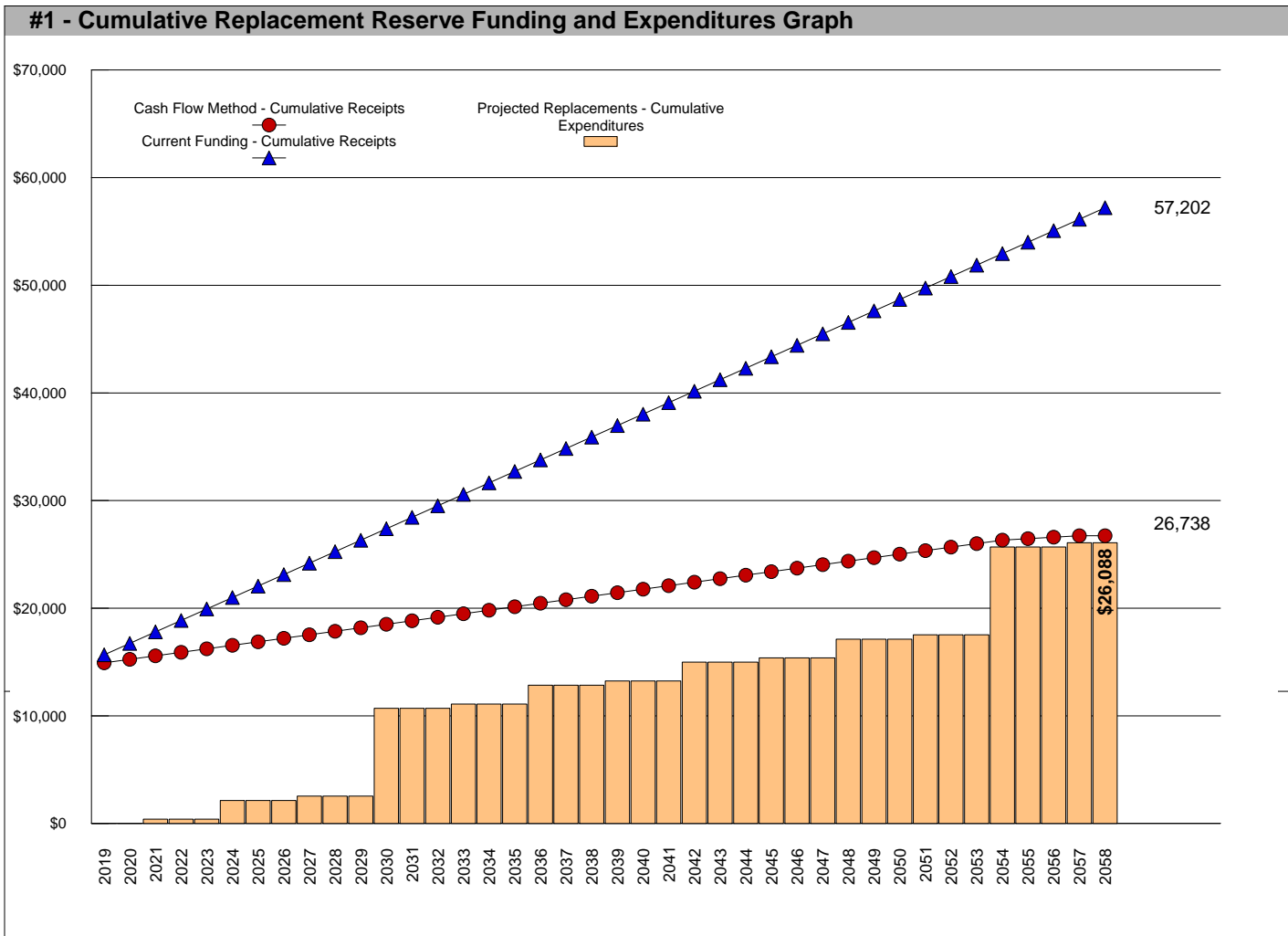
## EXECUTIVE SUMMARY

The PCV003 Replacement Reserve Analysis uses the Cash Flow Method (CFM) to calculate Replacement Reserve funding for the periodic replacement of the 4 Projected Replacements identified in the Replacement Reserve Inventory.

### **\$326** RECOMMENDED REPLACEMENT RESERVE FUNDING FOR THE STUDY YEAR, 2019

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.

PCV003 reports a Starting Balance of \$14,602 and Annual Funding totaling \$1,065. Current funding is greater than the funding necessary for the \$26,088 of Projected Replacements scheduled in the Replacement Reserve Inventory over the 40-year Study Period. See Page A3 for more detailed information.



The Current Funding Objective as calculated by the Component Method (Fully Funded) is \$3,205 making the reserve account 455.7% funded. See the Appendix for more information on this method.

**REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION**

The PCV003 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.

**\$14,602 | STARTING BALANCE**

The Association reports Replacement Reserves on Deposit totaling \$14,602 at the start of the Study Year.

**Level Two | LEVEL OF SERVICE**

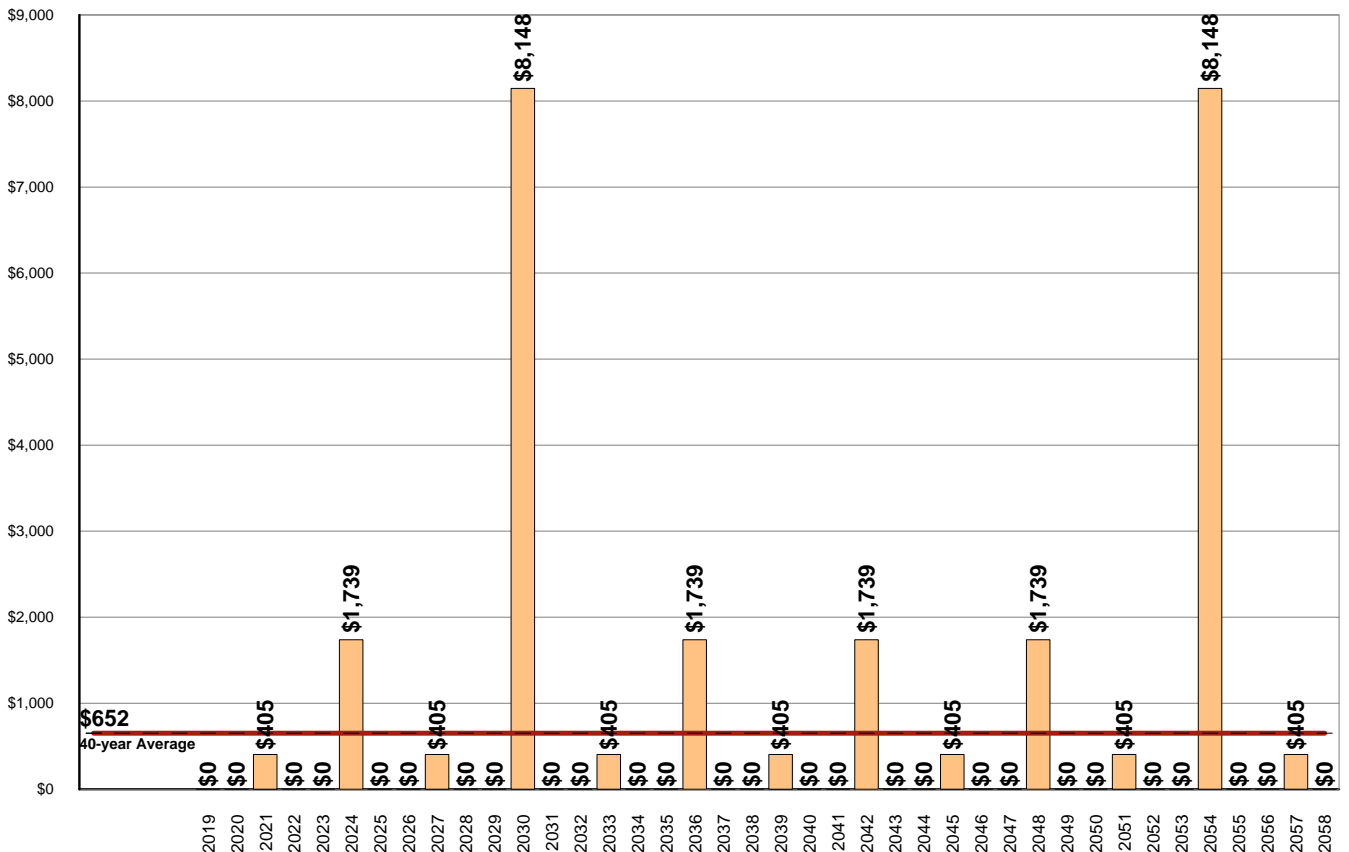
The Replacement Reserve Inventory has been developed in compliance with the National Reserve Study Standards for a Level Two Study, as defined by the Community Associations Institute (CAI).

**\$26,088 | REPLACEMENT RESERVE INVENTORY - PROJECTED REPLACEMENTS**

The PCV003 Replacement Reserve Inventory identifies 4 items that will require periodic replacement, that are to be funded from Replacement Reserves. We estimate the cost of these replacements will be \$26,088 over the 40-year Study Period. The Projected Replacements are divided into 2 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 \$652. 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 \$26,088 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.

<b>#3 - Table of Annual Expenditures and Current Funding Data - Years 1 through 40</b>										
Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Starting Balance	\$14,602									
Projected Replacements			(\$405)			(\$1,739)			(\$405)	
Annual Deposit	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065
End of Year Balance	\$15,667	\$16,732	\$17,392	\$18,457	\$19,522	\$18,848	\$19,913	\$20,978	\$21,638	\$22,703
Cumulative Expenditures			(\$405)	(\$405)	(\$405)	(\$2,144)	(\$2,144)	(\$2,144)	(\$2,549)	(\$2,549)
Cumulative Receipts	\$15,667	\$16,732	\$17,797	\$18,862	\$19,927	\$20,992	\$22,057	\$23,122	\$24,187	\$25,252
Year	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Projected Replacements		(\$8,148)			(\$405)			(\$1,739)		
Annual Deposit	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065
End of Year Balance	\$23,768	\$16,685	\$17,750	\$18,815	\$19,474	\$20,539	\$21,604	\$20,931	\$21,996	\$23,061
Cumulative Expenditures	(\$2,549)	(\$10,697)	(\$10,697)	(\$10,697)	(\$11,103)	(\$11,103)	(\$11,103)	(\$12,841)	(\$12,841)	(\$12,841)
Cumulative Receipts	\$26,317	\$27,382	\$28,447	\$29,512	\$30,577	\$31,642	\$32,707	\$33,772	\$34,837	\$35,902
Year	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Projected Replacements	(\$405)			(\$1,739)			(\$405)			(\$1,739)
Annual Deposit	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065
End of Year Balance	\$23,720	\$24,785	\$25,850	\$25,176	\$26,241	\$27,306	\$27,966	\$29,031	\$30,096	\$29,422
Cumulative Expenditures	(\$13,247)	(\$13,247)	(\$13,247)	(\$14,986)	(\$14,986)	(\$14,986)	(\$15,391)	(\$15,391)	(\$15,391)	(\$17,130)
Cumulative Receipts	\$36,967	\$38,032	\$39,097	\$40,162	\$41,227	\$42,292	\$43,357	\$44,422	\$45,487	\$46,552
Year	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058
Projected Replacements			(\$405)			(\$8,148)			(\$405)	
Annual Deposit	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065	\$1,065
End of Year Balance	\$30,487	\$31,552	\$32,212	\$33,277	\$34,342	\$27,259	\$28,324	\$29,389	\$30,049	\$31,114
Cumulative Expenditures	(\$17,130)	(\$17,130)	(\$17,535)	(\$17,535)	(\$17,535)	(\$25,683)	(\$25,683)	(\$25,683)	(\$26,088)	(\$26,088)
Cumulative Receipts	\$47,617	\$48,682	\$49,747	\$50,812	\$51,877	\$52,942	\$54,007	\$55,072	\$56,137	\$57,202

**EVALUATION OF CURRENT FUNDING**

The evaluation of Current Funding (Starting Balance of \$14,602 & annual funding of \$1,065), 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 4 Projected Replacements identified in the Replacement Reserve Inventory and that the Association will continue Annual Funding of \$1,065 throughout the 40-year Study Period.

The Component Method (provided in the Appendix) is a little used Replacement Reserve funding methodology generally recognized for calculating MAXIMUM rational funding. The \$1,065 annual funding is approximately -327 percent of the \$-325 Component Method recommended funding in 2019, the Study Year. Evaluation of the 4 Projected Replacements calculates an average annual expenditure over the next 40 years of \$652. Annual funding of \$1,065 is 163 percent of the average annual expenditure.

In summary, Current Funding as reported by the Association and outlined above, is greater than what is needed to provide timely and adequate funding for the \$26,088 of Projected Replacements scheduled in the Replacement Reserve Inventory over the 40-year Study Period.

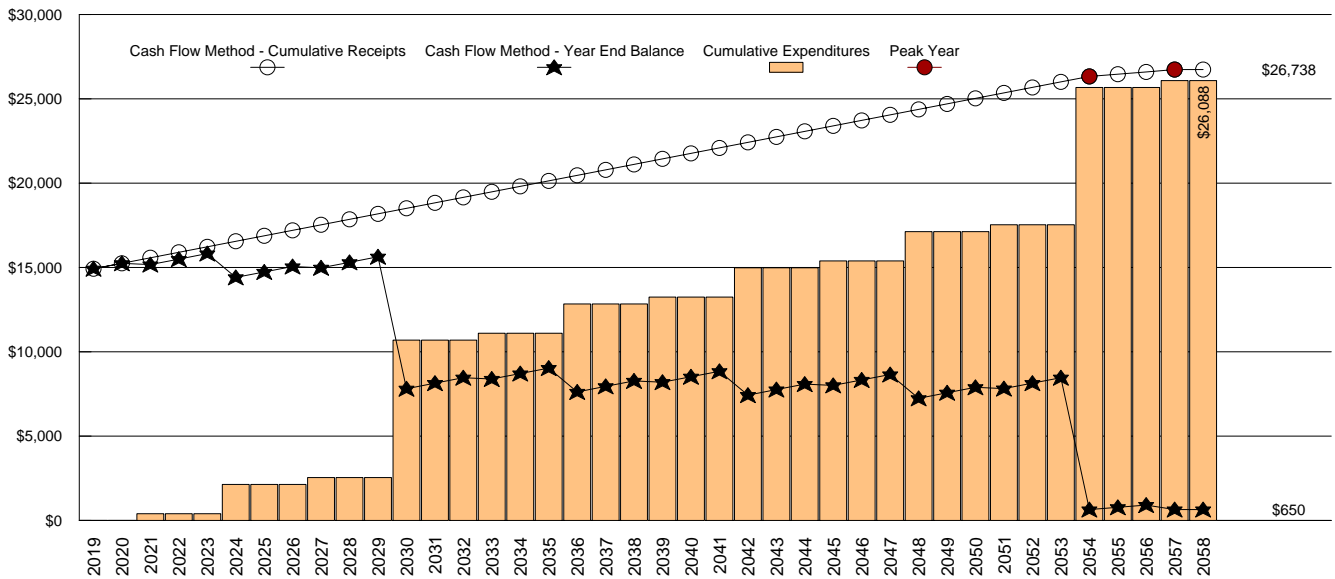
### CASH FLOW METHOD FUNDING

#### \$326 RECOMMENDED REPLACEMENT RESERVE FUNDING FOR 2019

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 2054 with Replacement Reserves on Deposit dropping to the Minimum Balance after the completion of \$25,683 of replacements from 2019 to 2054. Recommended funding declines from \$326 in 2054 to \$135 in 2055. Peak Years are identified in Chart 4 and Table 5.
- **Minimum Balance.** The calculations assume a Minimum Balance of \$650 in Replacement Reserves. This is approx. 12 months of average expenditures based on the \$652, 40-year average annual expenditure.
- **Cash Flow Method Study Period.** Cash Flow Method calculates funding for \$26,088 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	\$14,602									
Projected Replacements			(\$405)			(\$1,739)			(\$405)	
Annual Deposit	\$326	\$326	\$326	\$326	\$326	\$326	\$326	\$326	\$326	\$326
End of Year Balance	\$14,928	\$15,254	\$15,174	\$15,500	\$15,826	\$14,413	\$14,739	\$15,065	\$14,985	\$15,311
Cumulative Expenditures			\$405	\$405	\$405	\$2,144	\$2,144	\$2,144	\$2,549	\$2,549
Cumulative Receipts	\$14,928	\$15,254	\$15,580	\$15,905	\$16,231	\$16,557	\$16,883	\$17,209	\$17,535	\$17,861
Year	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Projected Replacements		(\$8,148)			(\$405)			(\$1,739)		
Annual Deposit	\$326	\$326	\$326	\$326	\$326	\$326	\$326	\$326	\$326	\$326
End of Year Balance	\$15,637	\$7,815	\$8,141	\$8,467	\$8,387	\$8,713	\$9,039	\$7,626	\$7,952	\$8,278
Cumulative Expenditures		(\$10,697)	(\$10,697)	(\$10,697)	(\$11,103)	(\$11,103)	(\$11,103)	(\$12,841)	(\$12,841)	(\$12,841)
Cumulative Receipts	\$18,186	\$18,512	\$18,838	\$19,164	\$19,490	\$19,816	\$20,142	\$20,467	\$20,793	\$21,119
Year	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Projected Replacements	(\$405)			(\$1,739)		(\$405)				(\$1,739)
Annual Deposit	\$326	\$326	\$326	\$326	\$326	\$326	\$326	\$326	\$326	\$326
End of Year Balance	\$8,198	\$8,524	\$8,850	\$7,437	\$7,763	\$8,089	\$8,009	\$8,335	\$8,661	\$7,248
Cumulative Expenditures	(\$13,247)	(\$13,247)	(\$13,247)	(\$14,986)	(\$14,986)	(\$14,986)	(\$15,391)	(\$15,391)	(\$15,391)	(\$17,130)
Cumulative Receipts	\$21,445	\$21,771	\$22,097	\$22,423	\$22,748	\$23,074	\$23,400	\$23,726	\$24,052	\$24,378
Year	2049	2050	2051	2052	2053	1st Peak - 2054	2055	2056	2nd Peak - 2057	2058
Projected Replacements			(\$405)			(\$8,148)			(\$405)	
Annual Deposit	\$326	\$326	\$326	\$326	\$326	\$326	\$135	\$135	\$135	\$650
End of Year Balance	\$7,574	\$7,900	\$7,820	\$8,146	\$8,472	\$650	\$785	\$920	\$650	\$650
Cumulative Expenditures	(\$17,130)	(\$17,130)	(\$17,535)	(\$17,535)	(\$17,535)	(\$25,683)	(\$25,683)	(\$25,683)	(\$26,088)	(\$26,088)
Cumulative Receipts	\$24,704	\$25,029	\$25,355	\$25,681	\$26,007	\$26,333	\$26,468	\$26,603	\$26,738	\$26,738

## 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.

### **\$326** 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.

### **\$344** 2020 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2020 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$14,928 on January 1, 2020.
- No Expenditures from Replacement Reserves in 2019.

- Construction Cost Inflation of 2.30 percent in 2019.

The \$344 inflation adjusted funding in 2020 is a 5.44 percent increase over the non-inflation adjusted 2020 funding of \$326.

### **\$363** 2021 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2021 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$15,271 on January 1, 2021.
- No Expenditures from Replacement Reserves in 2020.

- Construction Cost Inflation of 2.30 percent in 2020.

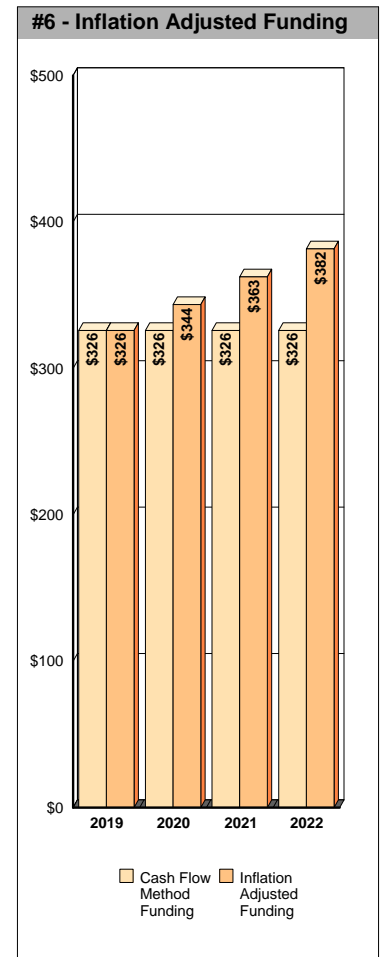
The \$363 inflation adjusted funding in 2021 is a 11.26 percent increase over the non-inflation adjusted 2021 funding of \$326.

### **\$382** 2022 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2022 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$15,210 on January 1, 2022.
- All 2021 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than \$424.
- Construction Cost Inflation of 2.30 percent in 2021.

The \$382 inflation adjusted funding in 2022 is a 17.10 percent increase over the non-inflation adjusted funding of \$326.



## 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 \$148 on an average balance of \$14,765, \$151 on an average balance of \$15,100 in 2020, and \$152 on \$15,241 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 \$326 to \$178 (a 45.31 percent reduction), \$344 to \$193 in 2020 (a 43.95 percent reduction), and \$363 to \$210 in 2021 (a 42.04 percent reduction).

## REPLACEMENT RESERVE STUDY - SUPPLEMENTAL COMMENTS

- 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 4 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

PCV003 - Replacement Reserve Inventory identifies 4 Projected Replacements.

- **PROJECTED REPLACEMENTS.** 4 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 \$8,148. Replacements totaling \$26,088 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.** None of the items included in the Replacement Reserve Inventory are 'Excluded Items'. Multiple categories of items 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.

- **CATEGORIES.** The 4 items included in the PCV003 Replacement Reserve Inventory are divided into 2 major categories. Each category is printed on a separate page, Pages B3 to B3.
- **LEVEL OF SERVICE.** This Replacement Reserve Inventory has been developed in compliance with the standards established for a Level Two - Update (with site visit and on-site review), as defined by the National Reserve Study Standards, established in 1998 by Community Associations Institute, which states:

*Level II Studies are based entirely on the component inventory from a prior study. This information is adjusted to reflect changes to the inventory that are provided by the Association, and the quantities are adjusted accordingly from field measurement and/or quantity takeoffs from to-scale drawings that are made available to us. The condition of all components is ascertained from a site visit and the visual inspection of each component by the analyst. The Remaining Economic Life and replacement cost of components are provided based in part on these observations. The fund status and Funding Plan are derived from analysis of this data.*

**REPLACEMENT RESERVE INVENTORY - GENERAL INFORMATION (cont'd)**

- **INVENTORY DATA.** Each of the 4 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.

- **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.

**PINE CREEK - SAGE HILL (shared driveway)**

**PROJECTED REPLACEMENTS**

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
1	Asphalt pavement, mill & overlay	sf	3,770	\$1.70	24	11	\$6,409
2	Asphalt pavement, seal coat	sf	3,770	\$0.20	6	5	\$754
3	Asphalt pavement, crack seal	sf	189	\$2.15	3	2	\$405
4	Concrete Curb & Gutter (6%)	lf	17	\$34.50	6	5	\$580
PINE CREEK - SAGE HILL (shared driveway) - Replacement Costs - Subtotal							\$8,148

**PINE CREEK - SAGE HILL (shared driveway)**

**COMMENTS**

- We have assumed that the Association will replace the asphalt pavement by the installation of a 2 inch thick overlay. The pavement will need to be milled prior to the installation of the overlay. Milling and the cost of minor repairs (5 to 10 percent of the total area) to the base materials and bearing soils beneath the pavement are included in the cost shown above.

Intentionally Left Blank



## PROJECTED ANNUAL REPLACEMENTS GENERAL INFORMATION

CALENDAR OF ANNUAL REPLACEMENTS. The 4 Projected Replacements in the PCV003 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 forty 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 PCV003 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	FY 2019 - STUDY YEAR	\$	Item	FY 2020 - YEAR 2	\$	Item	FY 2021 - YEAR 3	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$405
No Scheduled Replacements			No Scheduled Replacements			Total Scheduled Replacements		\$405
Item	FY 2022 - YEAR 4	\$	Item	FY 2023 - YEAR 5	\$	Item	FY 2024 - YEAR 6	\$
No Scheduled Replacements			No Scheduled Replacements			2	Asphalt pavement, seal coat	\$754
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$405
No Scheduled Replacements			No Scheduled Replacements			4	Concrete Curb & Gutter (6%	\$580
No Scheduled Replacements			No Scheduled Replacements			Total Scheduled Replacements		\$1,739
Item	FY 2025 - YEAR 7	\$	Item	FY 2026 - YEAR 8	\$	Item	FY 2027 - YEAR 9	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$405
No Scheduled Replacements			No Scheduled Replacements			Total Scheduled Replacements		\$405
Item	FY 2028 - YEAR 10	\$	Item	FY 2029 - YEAR 11	\$	Item	FY 2030 - YEAR 12	\$
No Scheduled Replacements			No Scheduled Replacements			1	Asphalt pavement, mill & ovi	\$6,409
No Scheduled Replacements			No Scheduled Replacements			2	Asphalt pavement, seal coat	\$754
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$405
No Scheduled Replacements			No Scheduled Replacements			4	Concrete Curb & Gutter (6%	\$580
No Scheduled Replacements			No Scheduled Replacements			Total Scheduled Replacements		\$8,148
Item	FY 2031 - YEAR 13	\$	Item	FY 2032 - YEAR 14	\$	Item	FY 2033 - YEAR 15	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$405
No Scheduled Replacements			No Scheduled Replacements			Total Scheduled Replacements		\$405

**PROJECTED REPLACEMENTS - YEARS SIXTEEN TO THIRTY**

Item	FY 2034 - YEAR 16	\$	Item	FY 2035 - YEAR 17	\$	Item	FY 2036 - YEAR 18	\$
No Scheduled Replacements			No Scheduled Replacements			2	Asphalt pavement, seal coat	\$754
						3	Asphalt pavement, crack se:	\$405
						4	Concrete Curb & Gutter (6%	\$580
						Total Scheduled Replacements		\$1,739
Item	FY 2037 - YEAR 19	\$	Item	FY 2038 - YEAR 20	\$	Item	FY 2039 - YEAR 21	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$405
						Total Scheduled Replacements		\$405
Item	FY 2040 - YEAR 22	\$	Item	FY 2041 - YEAR 23	\$	Item	FY 2042 - YEAR 24	\$
No Scheduled Replacements			No Scheduled Replacements			2	Asphalt pavement, seal coat	\$754
						3	Asphalt pavement, crack se:	\$405
						4	Concrete Curb & Gutter (6%	\$580
						Total Scheduled Replacements		\$1,739
Item	FY 2043 - YEAR 25	\$	Item	FY 2044 - YEAR 26	\$	Item	FY 2045 - YEAR 27	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$405
						Total Scheduled Replacements		\$405
Item	FY 2046 - YEAR 28	\$	Item	FY 2047 - YEAR 29	\$	Item	FY 2048 - YEAR 30	\$
No Scheduled Replacements			No Scheduled Replacements			2	Asphalt pavement, seal coat	\$754
						3	Asphalt pavement, crack se:	\$405
						4	Concrete Curb & Gutter (6%	\$580
						Total Scheduled Replacements		\$1,739

**PROJECTED REPLACEMENTS - YEARS THIRTY-ONE TO FORTY-FIVE**

Item	FY 2049 - YEAR 31	\$	Item	FY 2050 - YEAR 32	\$	Item	FY 2051 - YEAR 33	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$405
						Total Scheduled Replacements		\$405
Item	FY 2052 - YEAR 34	\$	Item	FY 2053 - YEAR 35	\$	Item	FY 2054 - YEAR 36	\$
No Scheduled Replacements			No Scheduled Replacements			1	Asphalt pavement, mill & ov:	\$6,409
						2	Asphalt pavement, seal coal	\$754
						3	Asphalt pavement, crack se:	\$405
						4	Concrete Curb & Gutter (6%	\$580
						Total Scheduled Replacements		\$8,148
Item	FY 2055 - YEAR 37	\$	Item	FY 2056 - YEAR 38	\$	Item	FY 2057 - YEAR 39	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$405
						Total Scheduled Replacements		\$405
Item	FY 2058 - YEAR 40	\$	Item	2059 (beyond Study Period)	\$	Item	2060 (beyond Study Period)	\$
No Scheduled Replacements			No Scheduled Replacements			2	Asphalt pavement, seal coal	\$754
						3	Asphalt pavement, crack se:	\$405
						4	Concrete Curb & Gutter (6%	\$580
						Total Scheduled Replacements		\$1,739
Item	Y 2061 (beyond Study Period)	\$	Item	2062 (beyond Study Period)	\$	Item	2063 (beyond Study Period)	\$
No Scheduled Replacements			No Scheduled Replacements			3	Asphalt pavement, crack se:	\$405
						Total Scheduled Replacements		\$405

## CASH FLOW METHOD ACCOUNTING SUMMARY

This PCV003 - Cash Flow Method Accounting Summary is an attachment to the PCV003 - Replacement Reserve Study dated June 15, 2019 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 4 Projected Replacements listed in the PCV003 Replacement Reserve Inventory has been assigned to one of 1 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 \$14,602 Beginning Balance (at the start of the Study Year) and the \$978 of additional Replacement Reserve Funding in 2019 through 2021 (as calculated in the Replacement Reserve Analysis) to each of the 4 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 \$14,602 Beginning Balance to the Projected Replacements by Chronological Allocation.
  - Allocation of the \$978 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 \$14,602 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 PCV003 the Beginning Balance funds all Scheduled Replacements in the Study Year through 2041 and provides partial funding (78%) of replacements scheduled in 2042.
  - The next step is the allocation of the \$326 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 PCV003 the Beginning Balance and the 2019 Replacement Reserve Funding, funds replacements through 2041 and partial funds (96.7%) replacements in 2042.
  - 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 4 Projected Replacements included in the PCV003 Replacement Reserve Inventory has been assigned to one of the 1 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 \$14,602 as of the first day of the Study Year, January 1, 2019.
- Total reserve funding (including the Beginning Balance) of \$14,928 in the Study Year.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.

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	
PINE CREEK - SAGE HILL (shared driveway)	3 to 24 years	2 to 11 years	\$8,148	\$14,602	\$326		\$14,928	

### 2020 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 4 Projected Replacements included in the PCV003 Replacement Reserve Inventory has been assigned to one of the 1 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 \$14,928 on January 1, 2020.
- Total reserve funding (including the Beginning Balance) of \$15,254 from 2019 through 2020.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.

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	
PINE CREEK - SAGE HILL (shared driveway)	3 to 24 years	1 to 10 years	\$8,148	\$14,928	\$326		\$15,254	

### 2021 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 4 Projected Replacements included in the PCV003 Replacement Reserve Inventory has been assigned to one of the 1 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 \$15,254 on January 1, 2021.
- Total Replacement Reserve funding (including the Beginning Balance) of \$15,580 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 \$405.

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	
PINE CREEK - SAGE HILL (shared driveway)	3 to 24 years	0 to 9 years	\$8,148	\$15,254	\$326	(\$405)	\$15,174	



### CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CF4 below details the allocation of the \$14,602 Beginning Balance, as reported by the Association and the \$978 of Replacement Reserve Funding calculated by the Cash Flow Method from 2019 to 2021, to the 4 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 \$14,602 on January 1, 2019.
- Replacement Reserves on Deposit totaling \$14,928 on January 1, 2020.
- Replacement Reserves on Deposit totaling \$15,254 on January 1, 2021.
- Total Replacement Reserve funding (including the Beginning Balance) of \$15,580 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 \$405.

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.

#### CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CF4

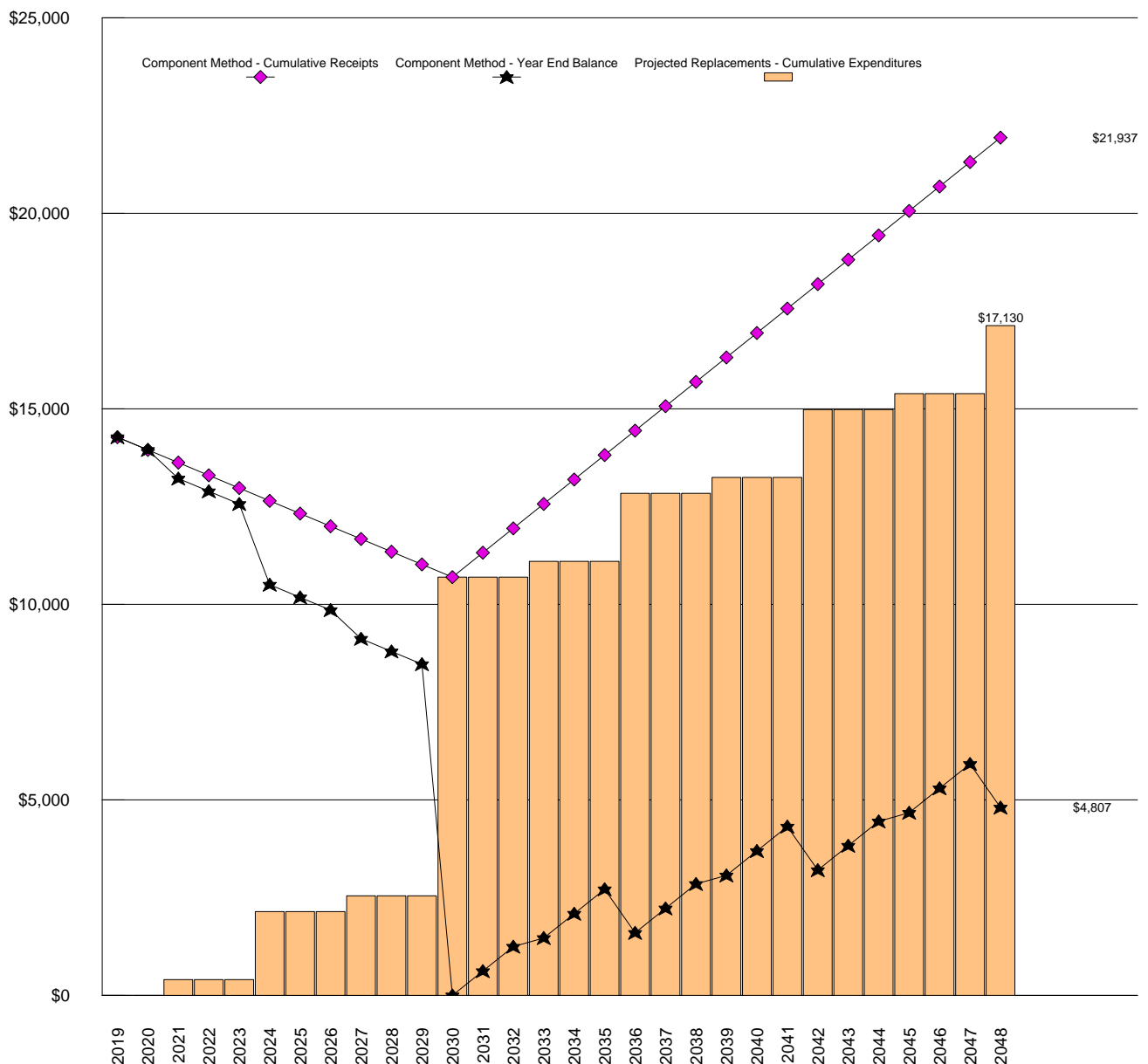
Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2019 Reserve Funding	2019 Projected Replacements	2019 End of Year Balance	2020 Reserve Funding	2020 Projected Replacements	2020 End of Year Balance	2021 Reserve Funding	2021 Projected Replacements	2021 End of Year Balance
	PINE CREEK - SAGE HILL (shared d											
1	Asphalt pavement, mill & overlay	6,409	6,409			6,409			6,409			6,409
2	Asphalt pavement, seal coat	754	2,850	141		2,991	25		3,016	82		3,098
3	Asphalt pavement, crack seal	405	3,153	76		3,229	282		3,510	181	(405)	3,286
4	Concrete Curb & Gutter (6%)	580	2,191	109		2,299	19		2,318	63		2,381

### COMPONENT METHOD

**(\$325) COMPONENT METHOD RECOMMENDED ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2019.**

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 4 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 4 Projected Replacements. The total, \$3,205, 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 (\$14,602) by the Current Funding Objective (\$3,205). At PCV003 the Funding Percentage is 455.7%
- **Allocation of the Beginning Balance.** The Beginning Balance is divided among the 4 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 455.7 percent funded, there is \$3,645 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 \$-325, the Component Method Recommended Annual Funding of Replacement Reserves in the Study Year (2019).

In our fence example, the \$3,645 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 \$-1,323. Next year, the deposit remains \$-1,323, 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	\$14,602									
Recommended annual funding	(\$325)	(\$325)	(\$325)	(\$325)	(\$325)	(\$325)	(\$325)	(\$325)	(\$325)	(\$325)
Interest on reserves										
Expenditures			\$405			\$1,739			\$405	
Year end balance	\$14,277	\$13,951	\$13,221	\$12,895	\$12,570	\$10,506	\$10,180	\$9,855	\$9,124	\$8,799
Cumulative Expenditures			\$405	\$405	\$405	\$2,144	\$2,144	\$2,144	\$2,549	\$2,549
Cumulative Receipts	\$14,277	\$13,951	\$13,626	\$13,300	\$12,975	\$12,650	\$12,324	\$11,999	\$11,673	\$11,348
Year	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Recommended annual funding	(\$325)	(\$325)	\$624	\$624	\$624	\$624	\$624	\$624	\$624	\$624
Interest on reserves										
Expenditures		\$8,148			\$405			\$1,739		
Year end balance	\$8,473	\$0	\$624	\$1,249	\$1,468	\$2,092	\$2,717	\$1,602	\$2,227	\$2,851
Cumulative Expenditures	\$2,549	\$10,697	\$10,697	\$10,697	\$11,103	\$11,103	\$11,103	\$12,841	\$12,841	\$12,841
Cumulative Receipts	\$11,023	\$10,697	\$11,322	\$11,946	\$12,571	\$13,195	\$13,819	\$14,444	\$15,068	\$15,693
Year	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Recommended annual funding	\$624	\$624	\$624	\$624	\$624	\$624	\$624	\$624	\$624	\$624
Interest on reserves										
Expenditures	\$405			\$1,739			\$405			\$1,739
Year end balance	\$3,070	\$3,695	\$4,319	\$3,205	\$3,829	\$4,453	\$4,672	\$5,297	\$5,921	\$4,807
Cumulative Expenditures	\$13,247	\$13,247	\$13,247	\$14,986	\$14,986	\$14,986	\$15,391	\$15,391	\$15,391	\$17,130
Cumulative Receipts	\$16,317	\$16,941	\$17,566	\$18,190	\$18,815	\$19,439	\$20,063	\$20,688	\$21,312	\$21,937

## COMPONENT METHOD ACCOUNTING SUMMARY

This PCV003 - Component Method Accounting Summary is an attachment to the PCV003 - Replacement Reserve Study dated June 15, 2019 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 4 Projected Replacements listed in the PCV003 Replacement Reserve Inventory has been assigned to one of 1 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 \$14,602 Beginning Balance (at the start of the Study Year) and the \$-976 of additional Replacement Reserve funding from 2019 to 2021 (as calculated in the Replacement Reserve Analysis) to each of the 4 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 \$14,602 Beginning Balance to the Projected Replacements by the Component Method.
  - Allocation of the \$-976 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 4 Projected Replacements included in the PCV003 Replacement Reserve Inventory has been assigned to one of the 1 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 \$14,602 as of the first day of the Study Year, January 1, 2019.
- Total reserve funding (including the Beginning Balance) of \$14,277 in the Study Year.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.

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	
PINE CREEK - SAGE HILL (shared driveway)	3 to 24 years	2 to 11 years	\$8,148	\$14,602	(\$325)		\$14,277	

### 2020 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 4 Projected Replacements included in the PCV003 Replacement Reserve Inventory has been assigned to one of the 1 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 \$14,277 on January 1, 2020.
- Total reserve funding (including the Beginning Balance) of \$13,951 from 2019 through 2020.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.

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	
PINE CREEK - SAGE HILL (shared driveway)	3 to 24 years	1 to 10 years	\$8,148	\$14,277	(\$325)		\$13,951	

### 2021 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 4 Projected Replacements included in the PCV003 Replacement Reserve Inventory has been assigned to one of the 1 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 \$13,951 on January 1, 2021.
- Total Replacement Reserve funding (including the Beginning Balance) of \$13,626 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 \$405.

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	
PINE CREEK - SAGE HILL (shared driveway)	3 to 24 years	0 to 9 years	\$8,148	\$13,951	(\$325)	\$405	\$13,221	

### COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CM4 below details the allocation of the \$14,602 Beginning Balance, as reported by the Association and the \$-976 of Replacement Reserve Funding calculated by the Cash Flow Method from 2019 to 2021, to the 4 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 \$14,602 on January 1, 2019.
- Replacement Reserves on Deposit totaling \$14,277 on January 1, 2020.
- Replacement Reserves on Deposit totaling \$13,951 on January 1, 2021.
- Total Replacement Reserve funding (including the Beginning Balance) of \$13,626 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 \$405.

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
	PINE CREEK - SAGE HILL (shared d											
1	Asphalt pavement, mill & overlay	6,409	14,602	(683)		13,919	(683)		13,237	(683)		12,554
2	Asphalt pavement, seal coat	754		126		126	126		251	126		377
3	Asphalt pavement, crack seal	405		135		135	135		270	135	(405)	
4	Concrete Curb & Gutter (6%)	580		97		97	97		193	97		290



## CONDITION ASSESSMENT

**General Comments.** Miller - Dodson Associates conducted a Reserve Study at Pine Creek Village Association in June 2019. Pine Creek Village Association is in generally good condition for a community constructed in 1998. 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 36 entry monuments within 25 villages. The monuments are CMU block structures covered with grouted stone, with a flat surface on one side containing a lettered sign identifying the village.

The monuments stone masonry are in good condition with a few open masonry joints and/or loose and broken masonry units.

The monument lettering is raised concrete and painted. The paint is considered maintenance but the letters may require occasional floating when the stone joints are grouted.

Photos for many of the larger main monuments can be found with the village maps in the photo appendix in the back of the study.

We recommend repointing and replacement of defective areas of the masonry as needed. The Association may want to consider applying a coat of Siloxane or other appropriate breathable sealant to mitigate water penetration and 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>.

Most entry monuments have a stone covered tower with a small roof which is framed with cedar or redwood and covered with clay roof tiles.

**Asphalt Pavement.** The Association is responsible for three asphalt driveways that are shared by the homeowners in their respective areas. There are separate reserve budget kept for each driveway. All other asphalt roadways are maintained by the City, County, or other municipality. In general, the Association's asphalt pavements are in good condition, with minor cracking.

Photos of the driveways can be found with the village maps in the photo appendix in the back of the study.

The Association maintains an inventory of asphalt pavement within the following villages:

- Willow Glen 7,420 sf
- Glen Arbor 4,810 sf
- Sage Hill 3,770 sf

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 20 to 25 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. At the present time the Association is contributing more to these asphalt accounts than needed based upon the expenditures over the past 20 years, but the Analyst recommends the annual deposits be lowered to the amounts recommended in this study, in lieu of stopping the deposits completely. The mill & overlay will be required in the future and this is a high cost item.

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 curbs, sidewalks, and other flatwork. The overall condition of the concrete work is good. 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.



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 poled lights at the mailbox kiosks. And the monument sign lighting.

This study assumes replacement of the light fixtures every 25 to 30 years. When the light poles are replaced, we assume that the underground wiring will also be replaced.

When it is time for the lights to be replaced it is recommended the Association consult with a lighting expert as new technology such LED and LIFI among others should be evaluated when considering replacement.



**Retaining Walls.** The Association maintains a segmental block retaining wall and a stone retaining wall. The retaining walls are in good condition with light to no leaning, bowing, or loss of stones/blocks.

Retaining walls in general are designed to provide slope stabilization and soil retention by means of a structural system. Typically, walls that are three feet high or more require some level of design.

Movement and displacement of any retaining wall is a sign of general settlement or failure. This typically is in the form of leaning and bowing, and can involve the entire wall or localized sections of the wall. Typically, these types of movements are gradual and may require the replacement of the wall. Movement of retaining walls located near other buildings or structures may negatively affect the stability of the adjacent structure. These conditions can become extremely costly if not properly identified, monitored, and addressed.





Segmental block retaining walls can have an extended useful life, and if stable, are likely to only require localized resetting of displaced blocks, typically near the top of the wall. This study assumes that resetting will be performed incrementally as needed.

**Fencing.** The Association maintains wood and metal fencing that is in generally good condition.



Protection from string machine damage during lawn maintenance can extend the useful life of some fence types. Protection from this type of damage is typically provided by applying herbicides around post bases or installing protective sheathing.

Metal fencing can have a useful life of 40 years or more. Periodic cleaning and touch-up painting may be required to keep the fence attractive.

Pressure treated wood fencing should be cleaned and sealed every year or two. Typically the least cost fencing option, this type of fence can last 15 to 20 years if maintained properly.

**Mailboxes.** The cluster mailboxes located throughout the community are property of the USPS, but the Association maintains the stone/stucco kiosk that surround the mailboxes. The stone and stucco are periodically tuck-pointed to clean up cracks in the stucco and lock the stones back into place. The kiosks also have wood roofs that should be painted regularly to extend their useful life.



**Screenwalls.** The Association maintains stone and stucco screen walls that are in generally good condition. The screen walls are formed from CMU block and then the walls and pilasters are covered in a combination of stone veneer and stucco. The walls should have a life of the property with the stucco and stone veneer requiring periodic tuck-pointing to repair stucco cracking or the loss of stone veneer pieces.

The walls have a mid-span decorative trim that is constructed with a 2" x 4" wood strip attached to the block wall and then the stucco finish is applied. This decorative strip creates a ledge covered with stucco that can retain water and if cracking forms on the top of the strip then the wood will swell and further damage the stucco. These finish point must be inspected regularly and immediately repaired if cracking is found. There is a very bad section located in Spanish Oaks which should be addressed soon. See photos that follow.



## RECREATIONAL FACILITIES

**Tot Lots.** The community maintains a large tot lot with multiple play structures. This tot lot includes play structures, miscellaneous play equipment, concrete border, and a rubber fall surface. The equipment is in generally good condition with minor wear.



The safety of each individual piece of playground equipment as well as the layout of the entire play area should be considered when evaluating a playground for safety. The installation and maintenance of the protective surfacing under and around all equipment is crucial. Please note that the evaluation of the equipment and these facilities for safety is beyond the scope of this work.

Information for playground design and safety can be found in the "Public Playground Safety Handbook", U.S. Consumer Product Safety Commission (Pub Number 325). For a link to this handbook, please see our web site at [www.mdareerves.com/resources/links/recreation](http://www.mdareerves.com/resources/links/recreation).



Our estimates for playground equipment are based on comparing photos of the existing equipment with equipment of a similar size in manufacturers' catalogs. We use the pricing that is quoted by manufacturers for comparable equipment.

**Basketball Court.** The community maintains a half basketball court. The overall condition of the court is good.

Replacement of nets is considered a maintenance activity and is therefore not included in the study. Repaving, color coating, and entire goal replacement are included.



## SPLASH PARK

The Association had a Splash Park within the community park until last year. The Splash Park was removed and a covered pavilion was installed in its place. Recommended funding to maintain the splash park has also been removed, although the pump and filter system was not removed.



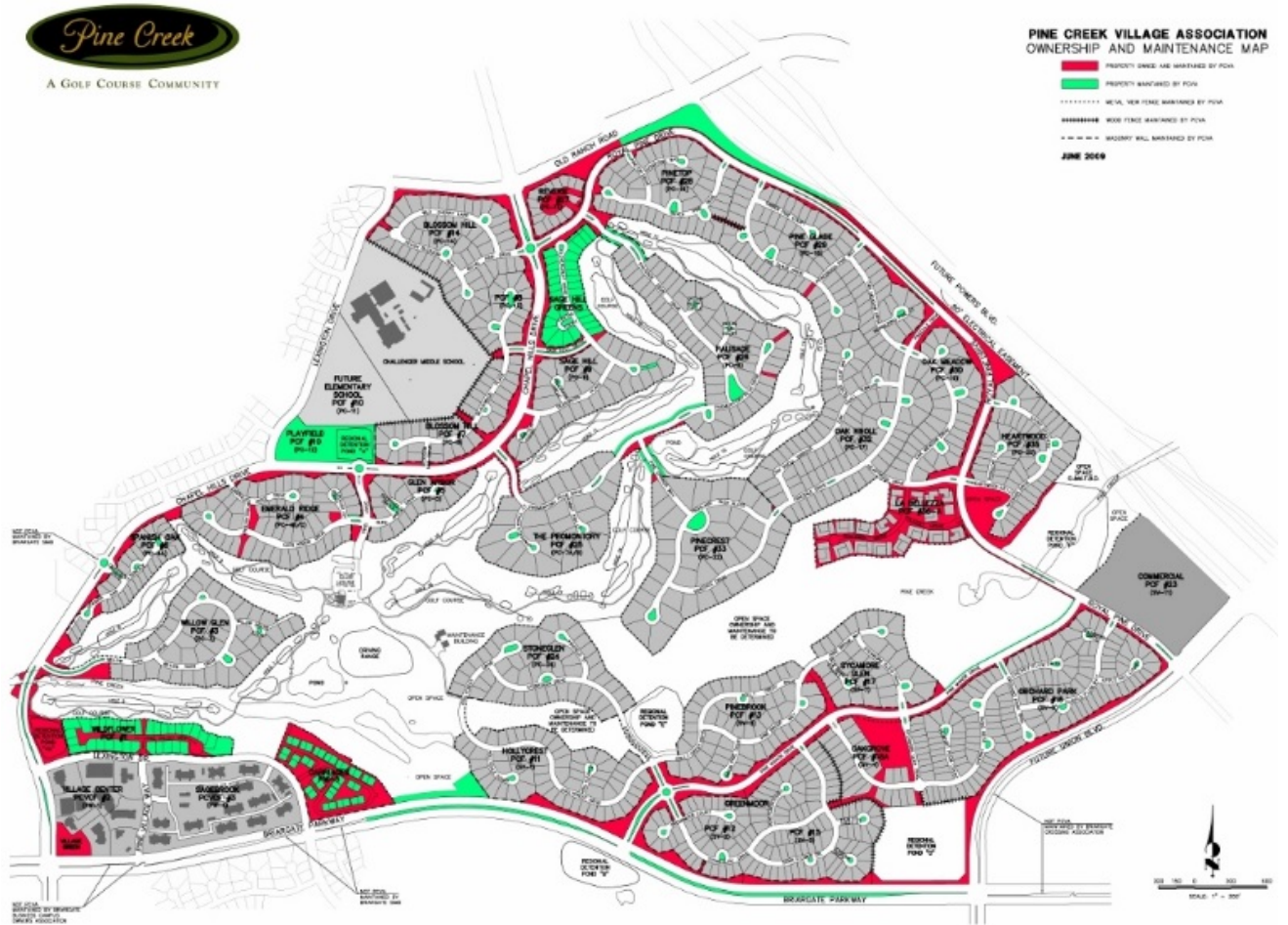
This Condition Assessment is based upon our visual survey of the property. The sole purpose of the visual survey was an evaluation of the common elements of the property to ascertain the remaining useful life and the replacement costs of these common elements. Our evaluation assumed that all components 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

**PINECREEK VILLAGE HOA**  
Colorado Springs, Colorado  
Photo Log

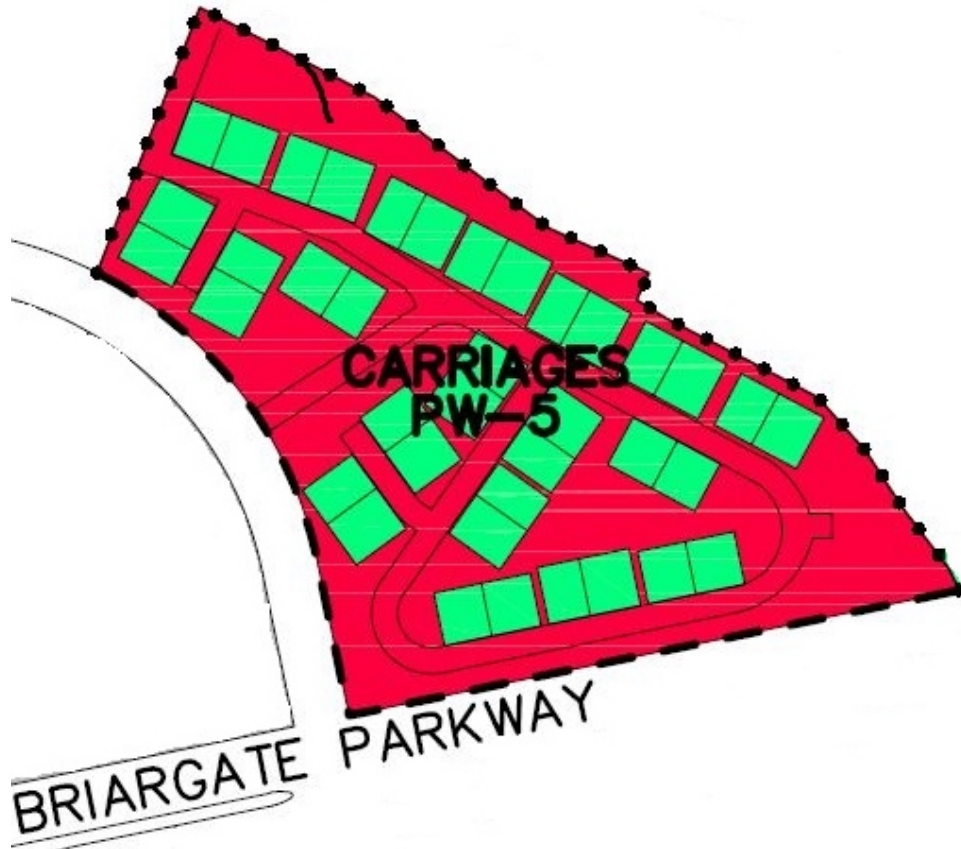
- P-2. Map of Pinecreek Village Property
- P-3. Map of Carriages and Wildflower Filings
- P-4. Map of Willow Glen and Spanish Oak Filings
- P-5. Map of Emerald Ridge and Glen Arbor Filings
- P-6. Map of Blossom Hill Filing
- P-7. Map of Promontory and Reverie Filings
- P-8. Map of Sage Hill Filing
- P-9. Map of Pinetop Filing
- P-10. Map of Palisade Filing
- P-11. Map of Pine Glade Filing
- P-12. Map of Oak Meadows Filing
- P-13. Map of Oak Knoll Filing
- P-14. Map of Pinecrest and La Bellezza Filings
- P-15. Map of Heartwood Filing
- P-16. Map of Orchard Park Filing
- P-17. Map of Sycamore Glen and Oakgrove Filings
- P-18. Map of Pinebrook and Greenmoor Filings
- P-19. Map of Holleycrest and Stoneglen Filings
- P-20. Photos 01 thru 06 - Monument Signs, Main Entry, Carriages, Wildflower, Willow Glen, and Spanish Oak
- P-21. Photos 07 thru 12 - “ “, Emerald Ridge & Glen Arbor, Blossom Hill, Promontory, Reverie, & Sage Hill
- P-22. Photos 13 thru 18 - “ “, Pinetop, Palisade, Pine Glade, Oak Meadow, Oak Knoll, and Pinecrest
- P-23. Photos 19 thru 24 - “ “, La Bellezza, Heartwood, Orchard Park, Sycamore Glen, Oak Grove, and Pine Brook
- P-24. Photos 25 thru 27 - “ “, Greenmoor, Hollycrest, and Stoneglen
- P-25. Photos 28 thru 31 - Asphalt Pavement & Curb and Gutters

Map of Pinecreek Village Property

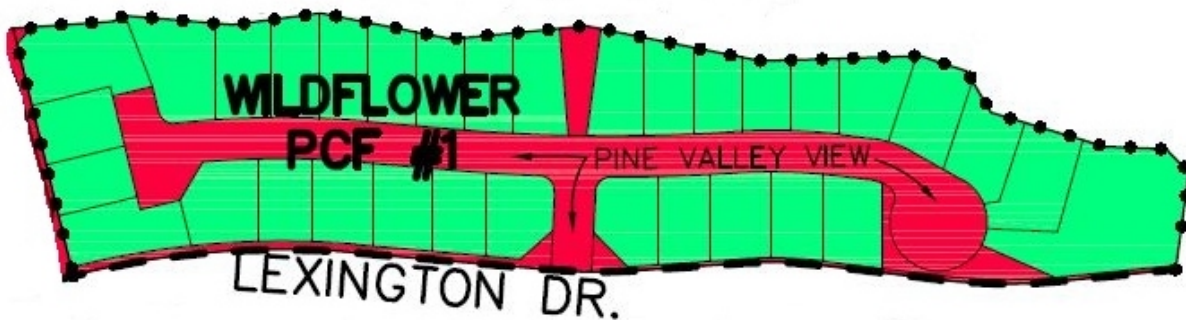




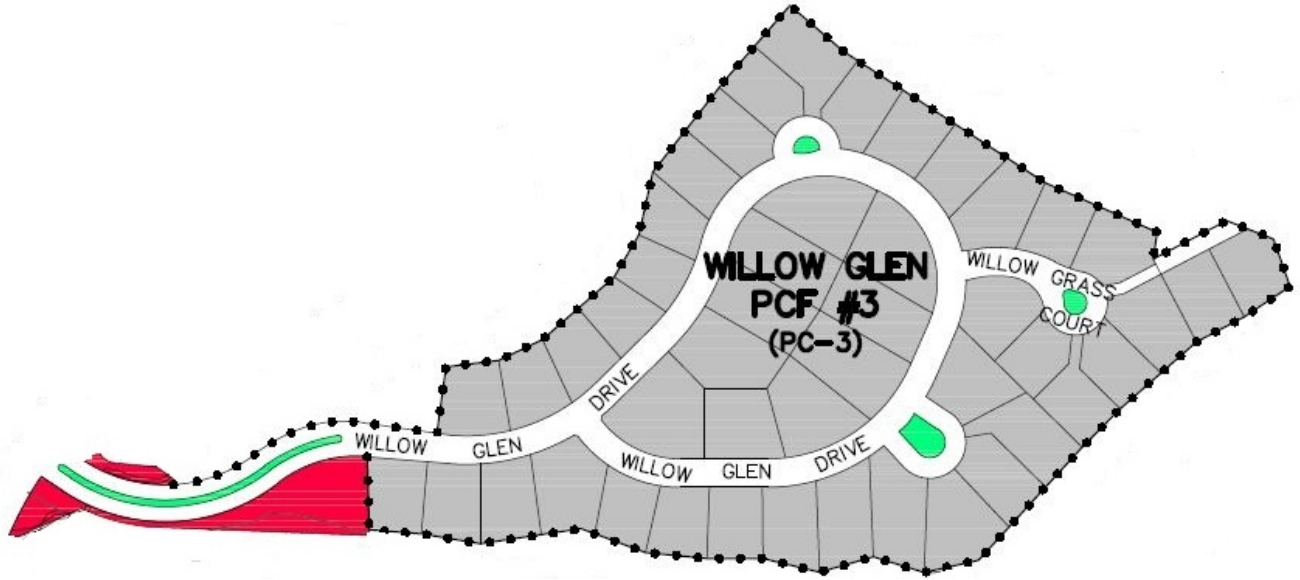
Carriages @ Pinecreek (38 homes)



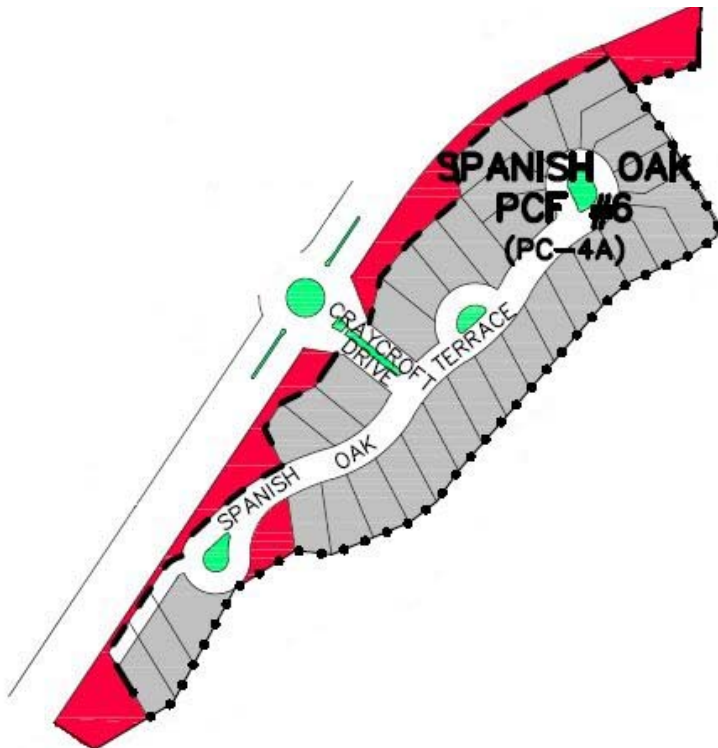
Wildflower @ Pinecreek (33 homes)



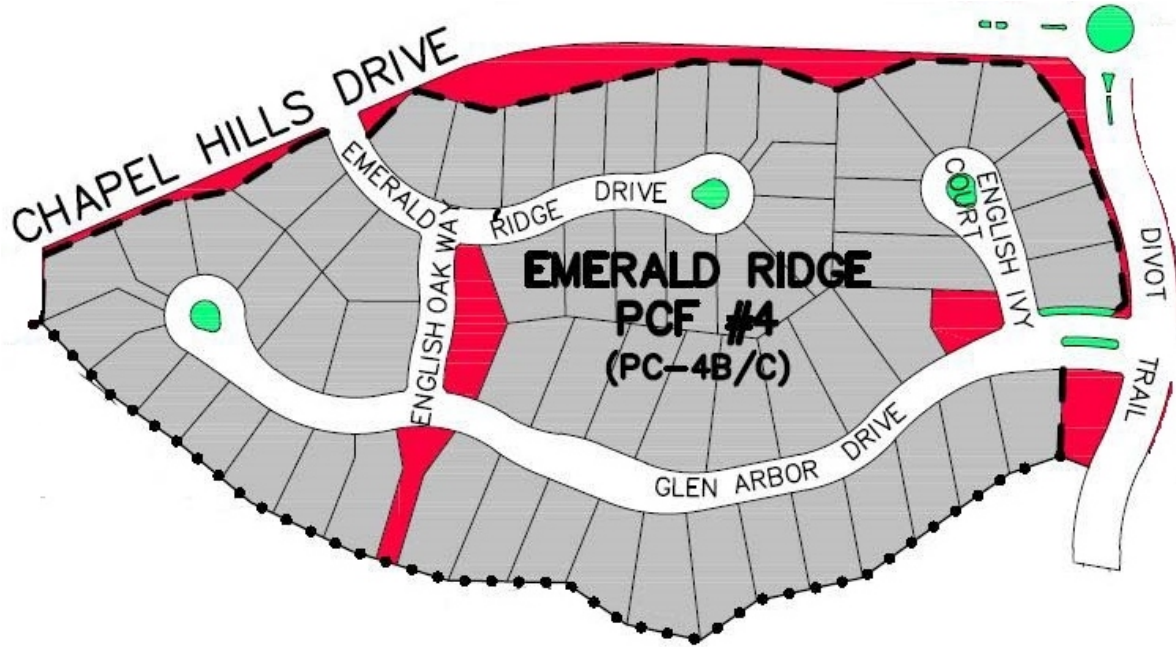
Willow Glen @ Pinecreek (47 homes)



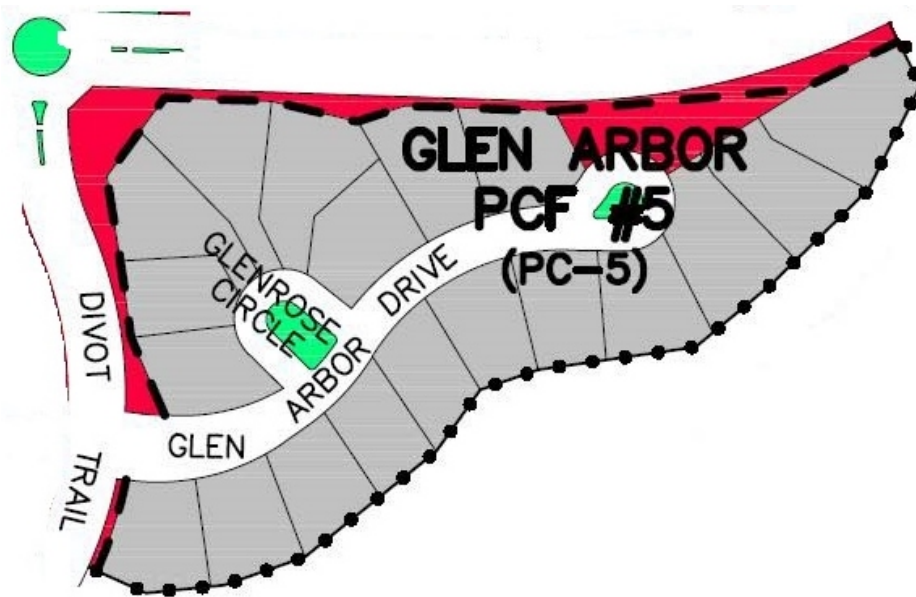
Spanish Oak @ Pinecreek (33 homes)



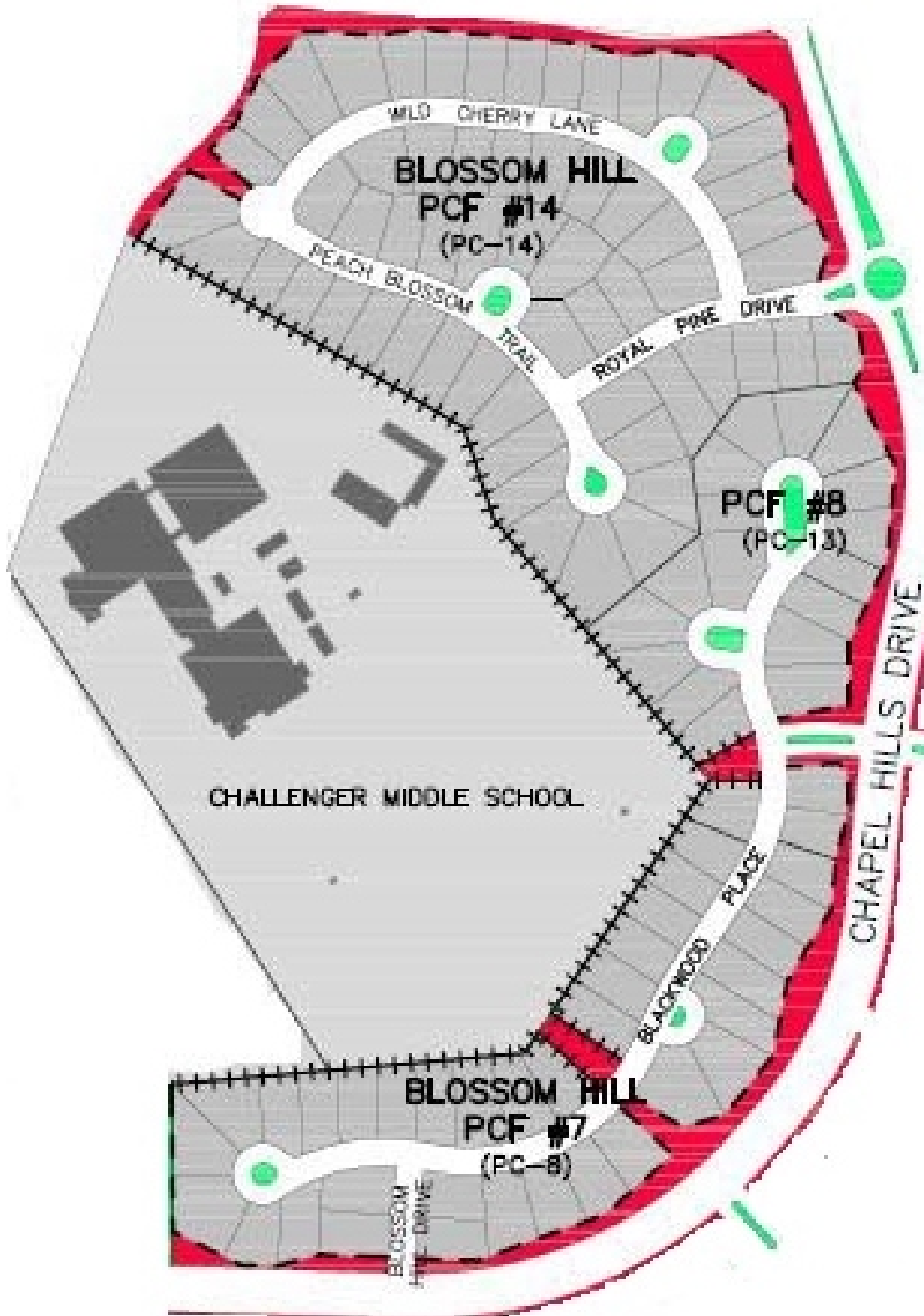
Emerald Ridge @ Pinecreek (59 homes)



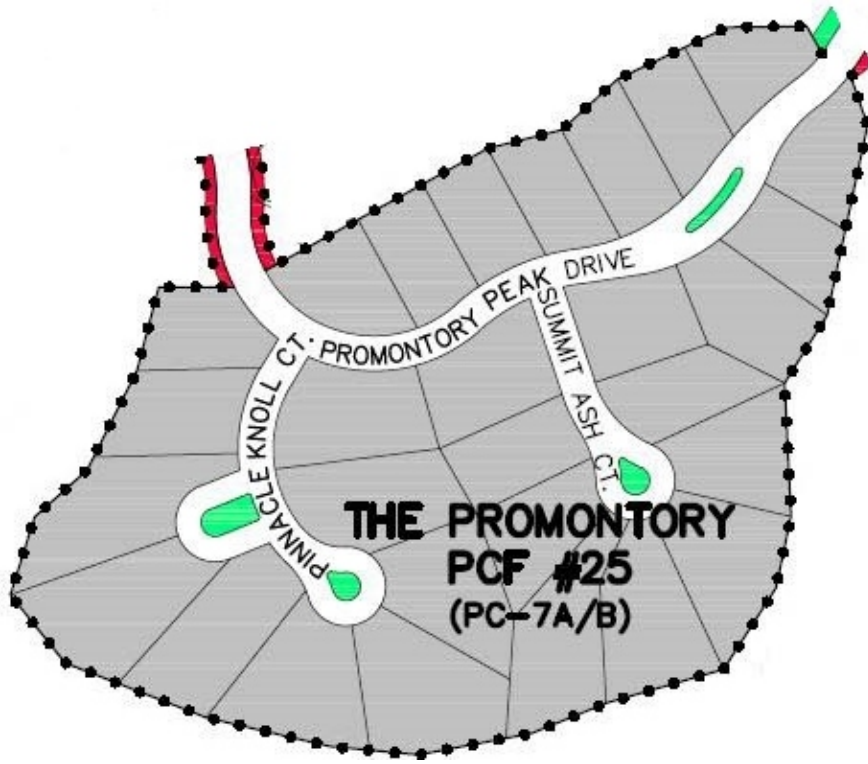
Glen Arbor @ Pinecreek (19 homes)



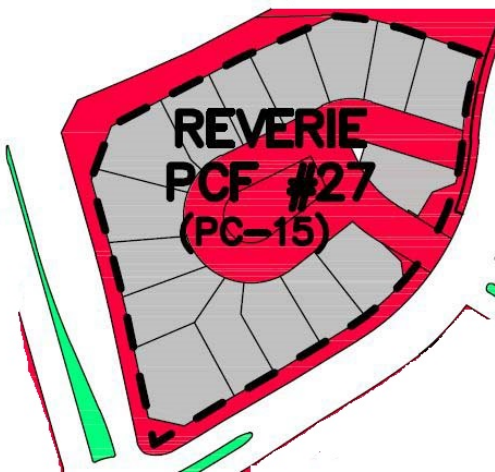
Blossom Hill @ Pinecreek (113 homes)



Promontory @ Pinecreek (29 homes)

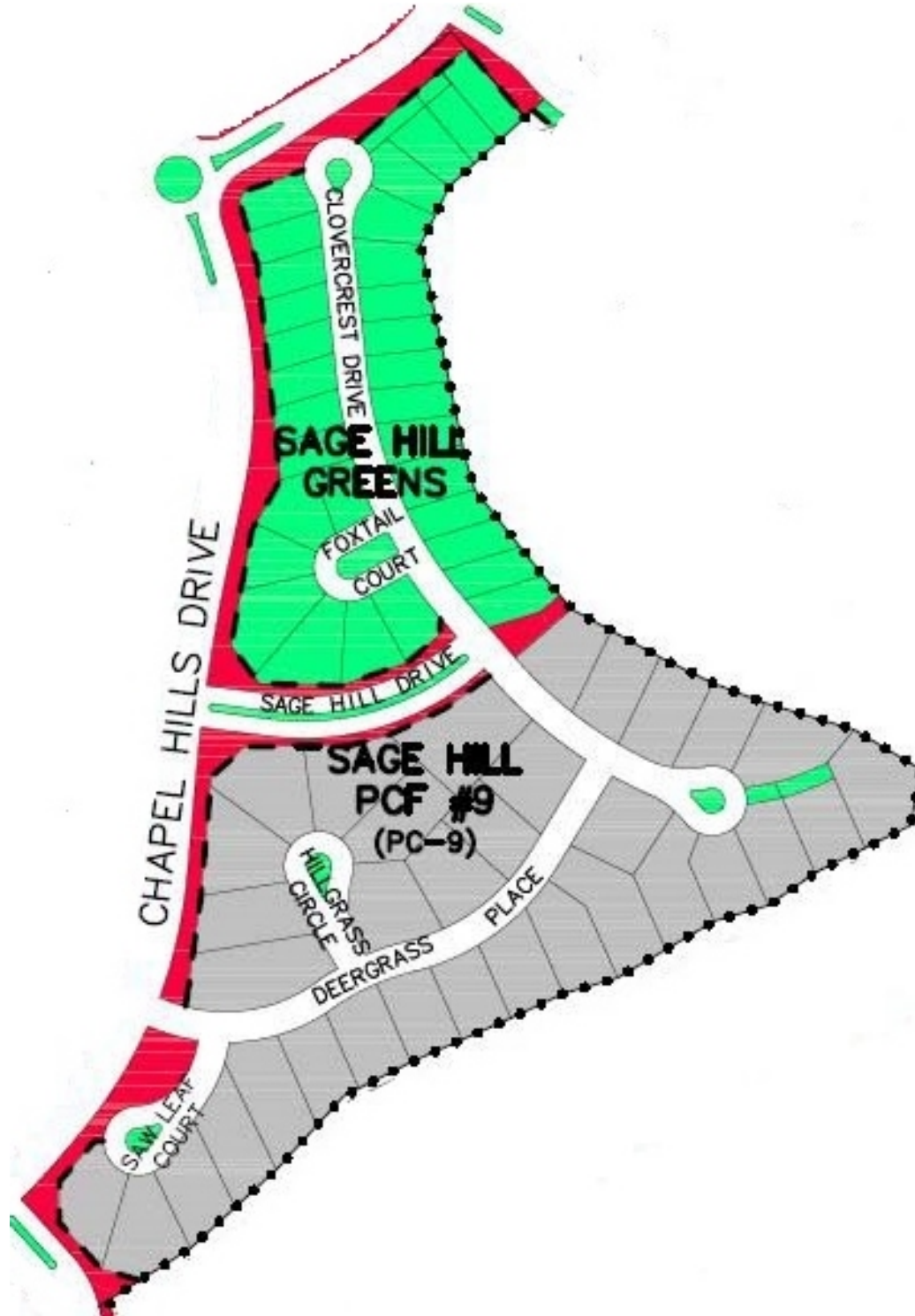


Reverie @ Pinecreek (16 homes)

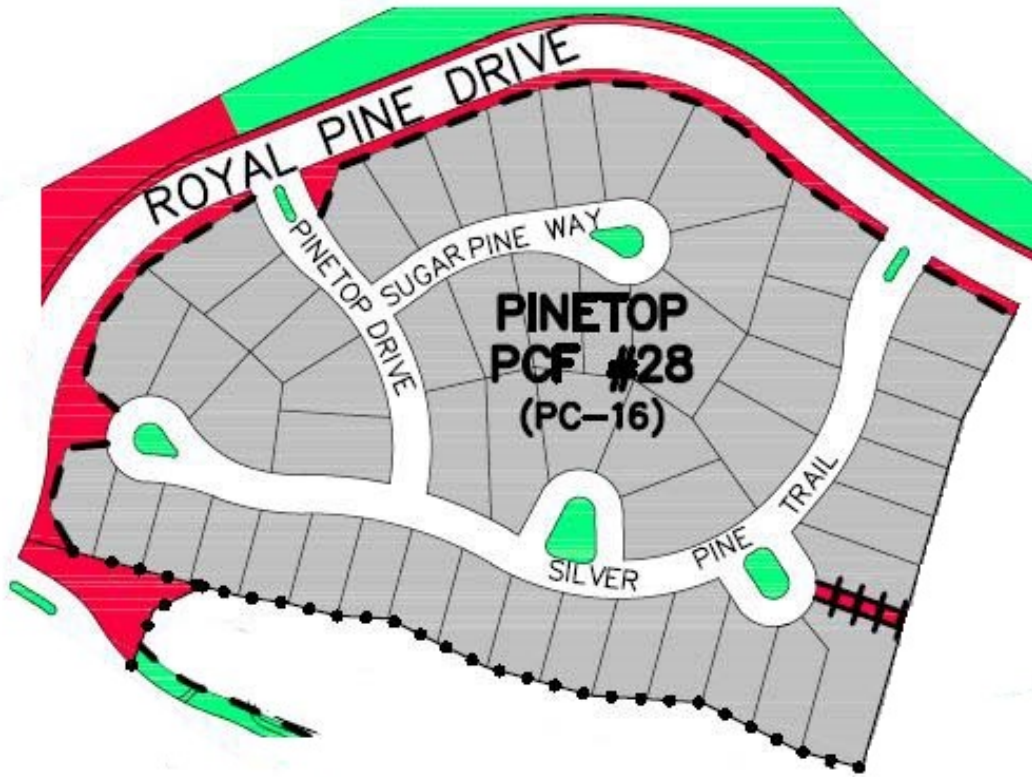




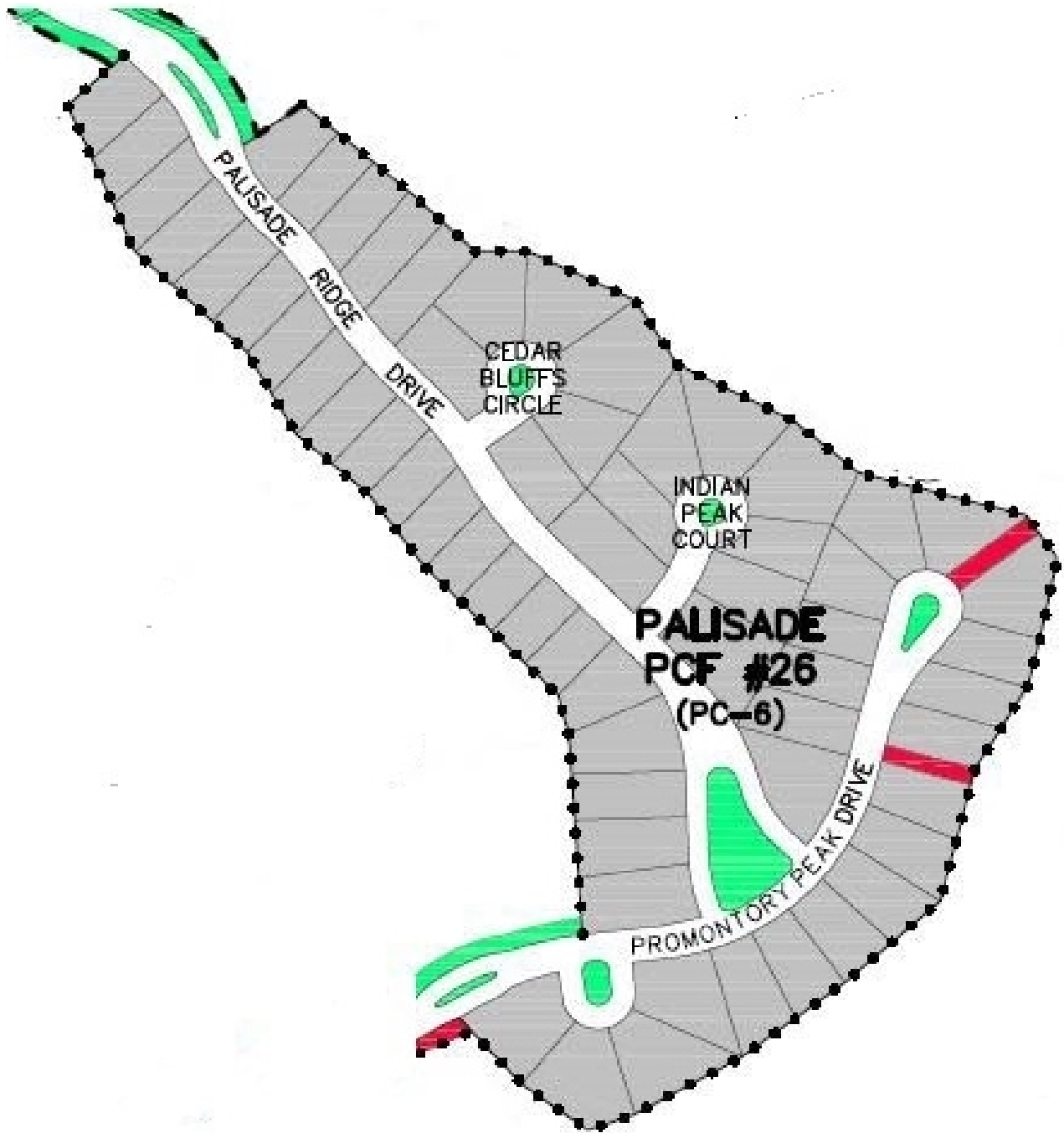
Sage Hill @ Pinecreek (65 homes)



Pinetop @ Pinecreek (52 homes)



Palisade @ Pinecreek (61 homes)

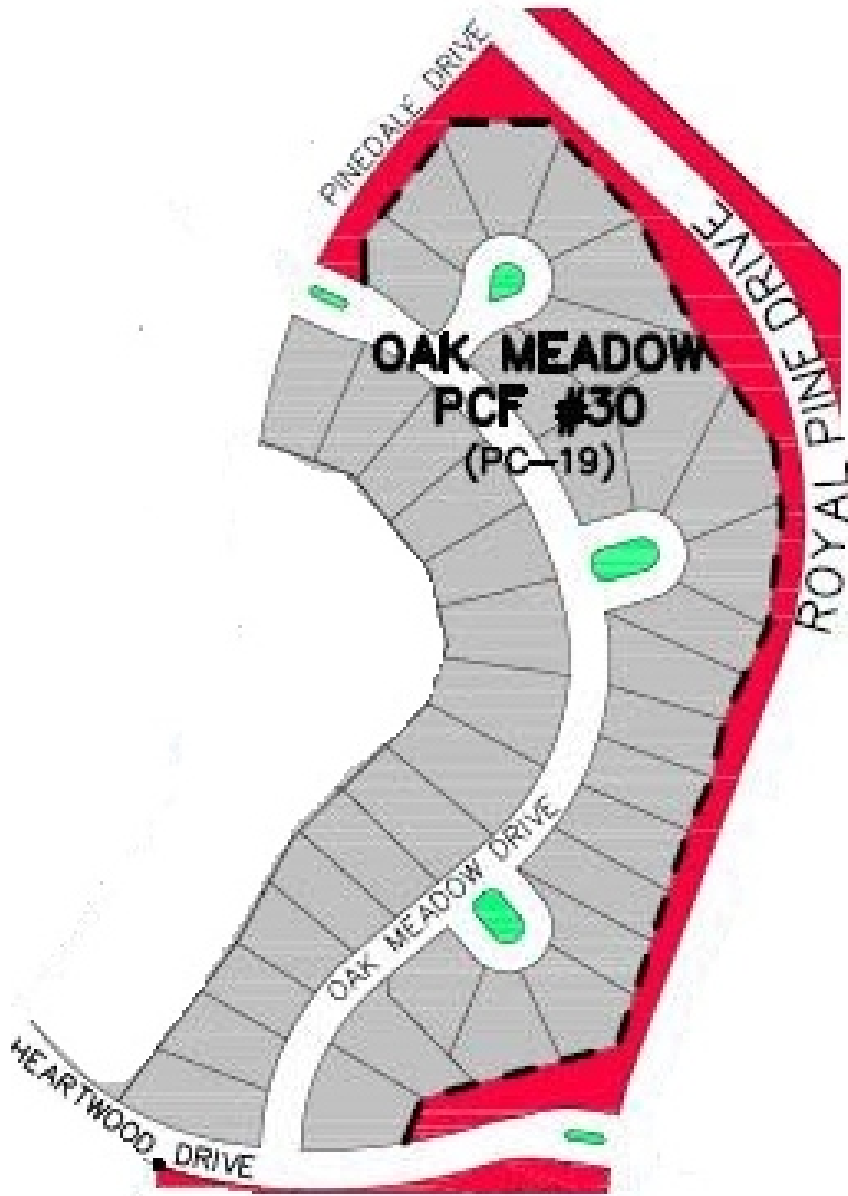




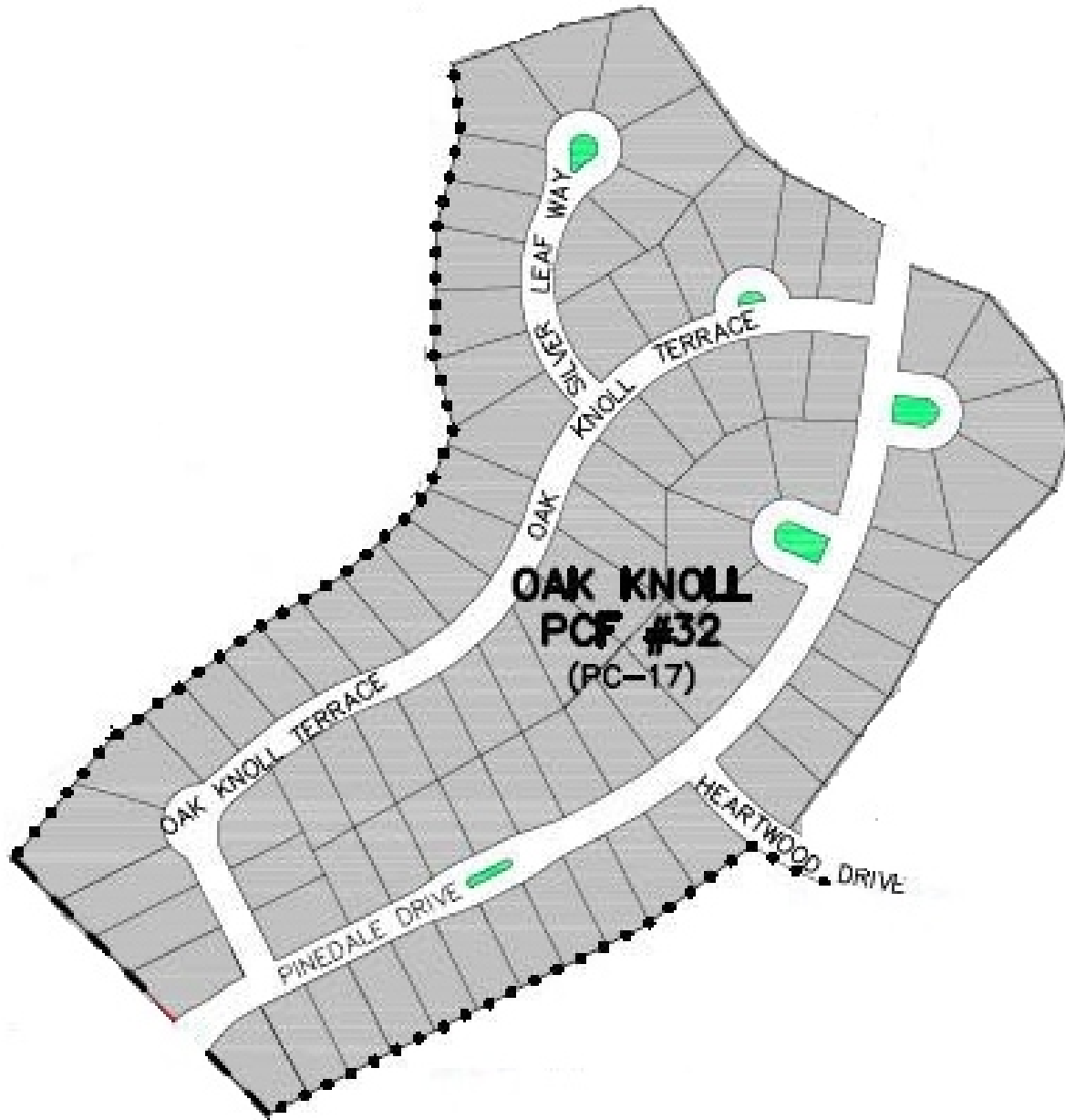
Pine Glade @ Pinecreek (86 homes)



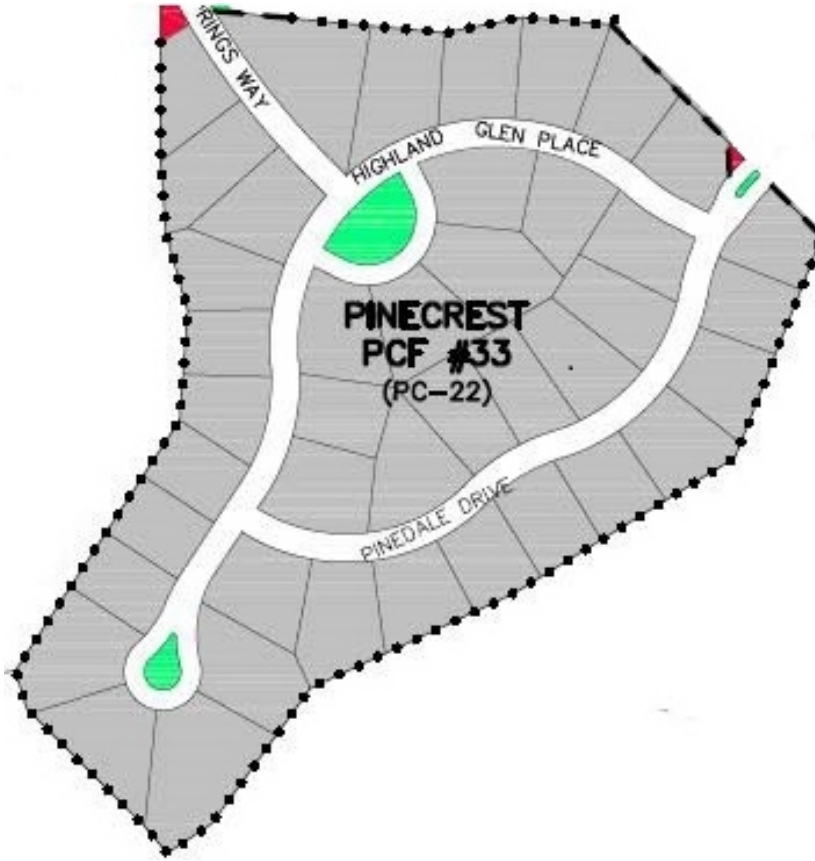
Oak Meadow @ Pinecreek (38 homes)



Oak Knoll @ Pinecreek (85 homes)



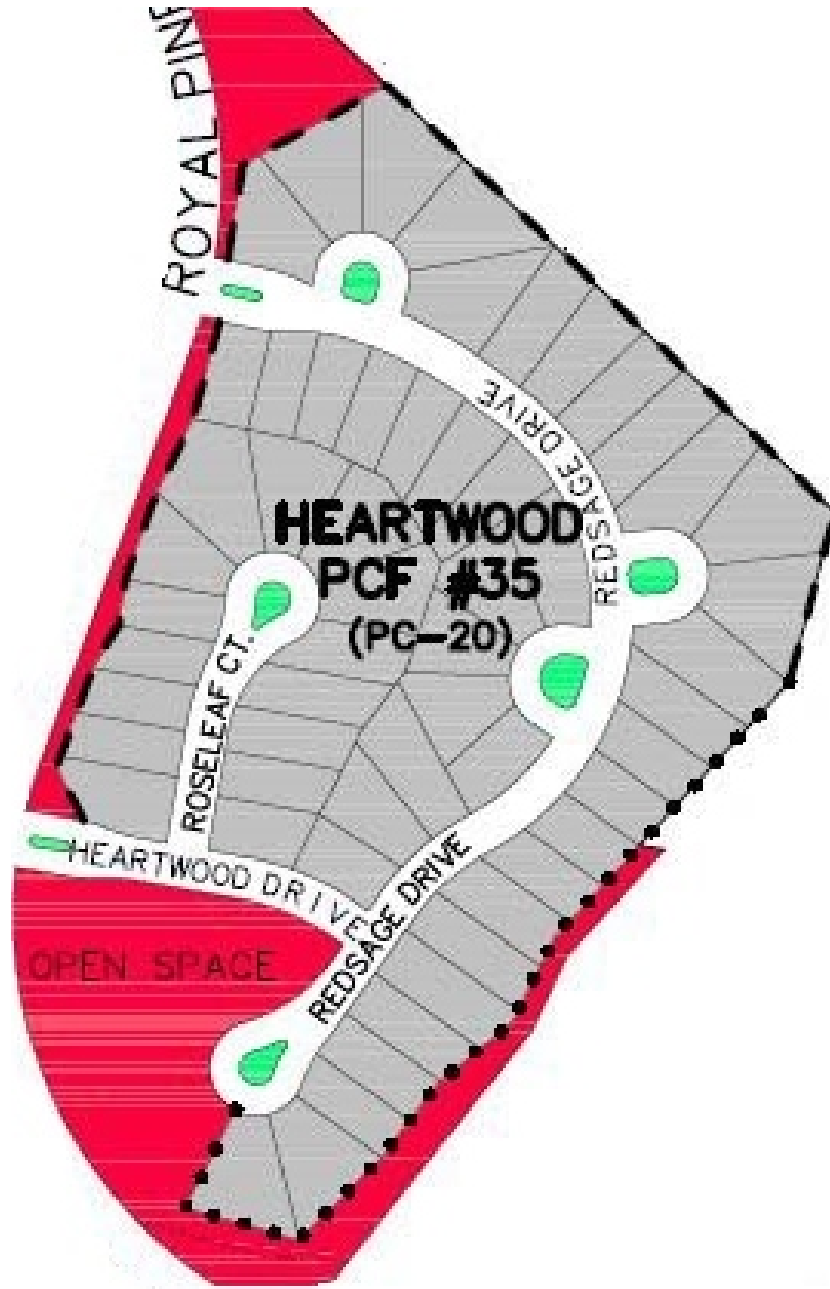
Pinecrest @ Pinecreek (42 homes)



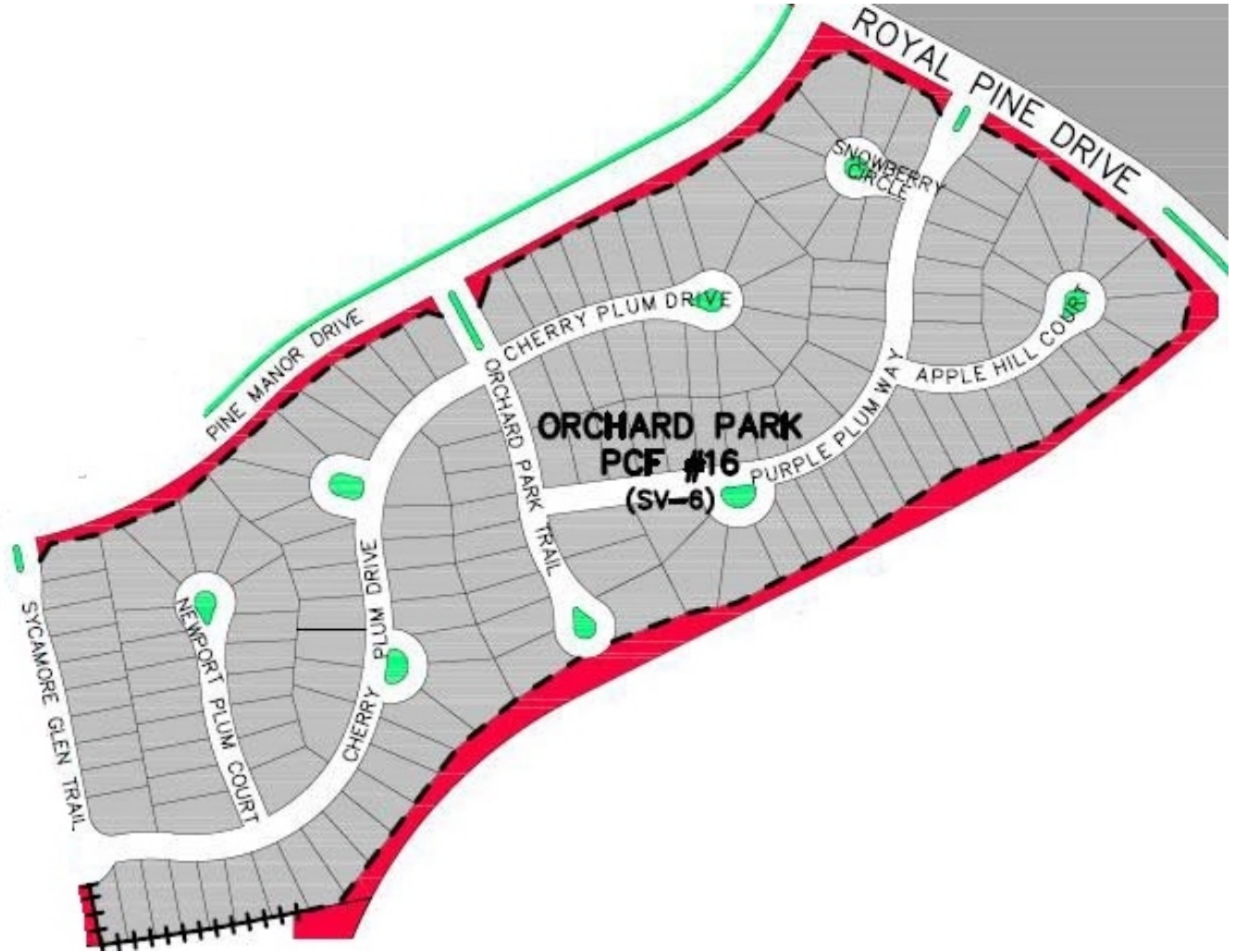
La Bellezza @ Pinecreek (48 homes)



Heartwood @ Pinecreek (57 homes)

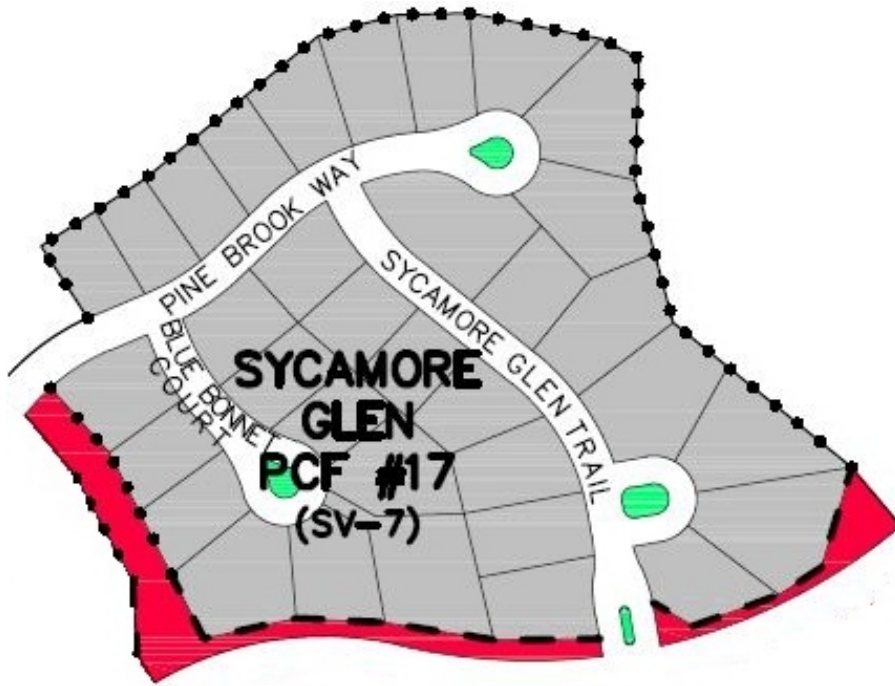


Orchard Park @ Pinecreek (145 homes)





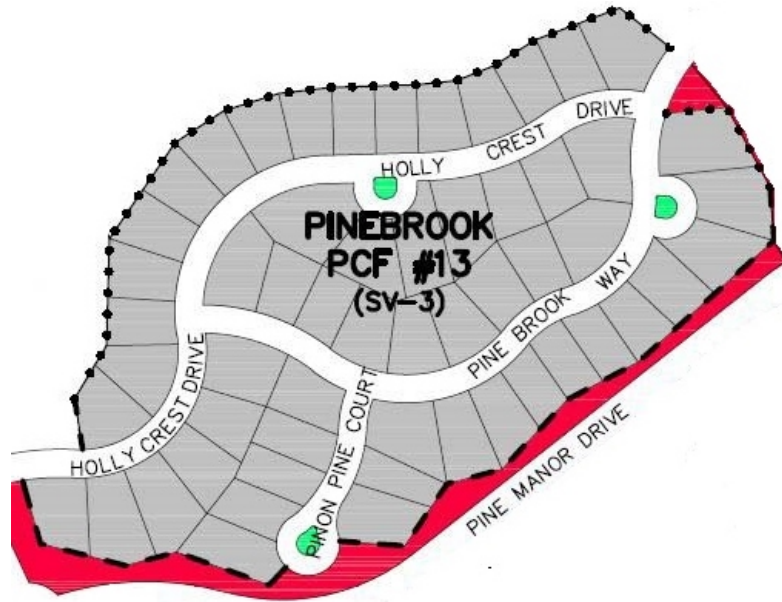
Sycamore Glen @ Pinecreek (34 homes)



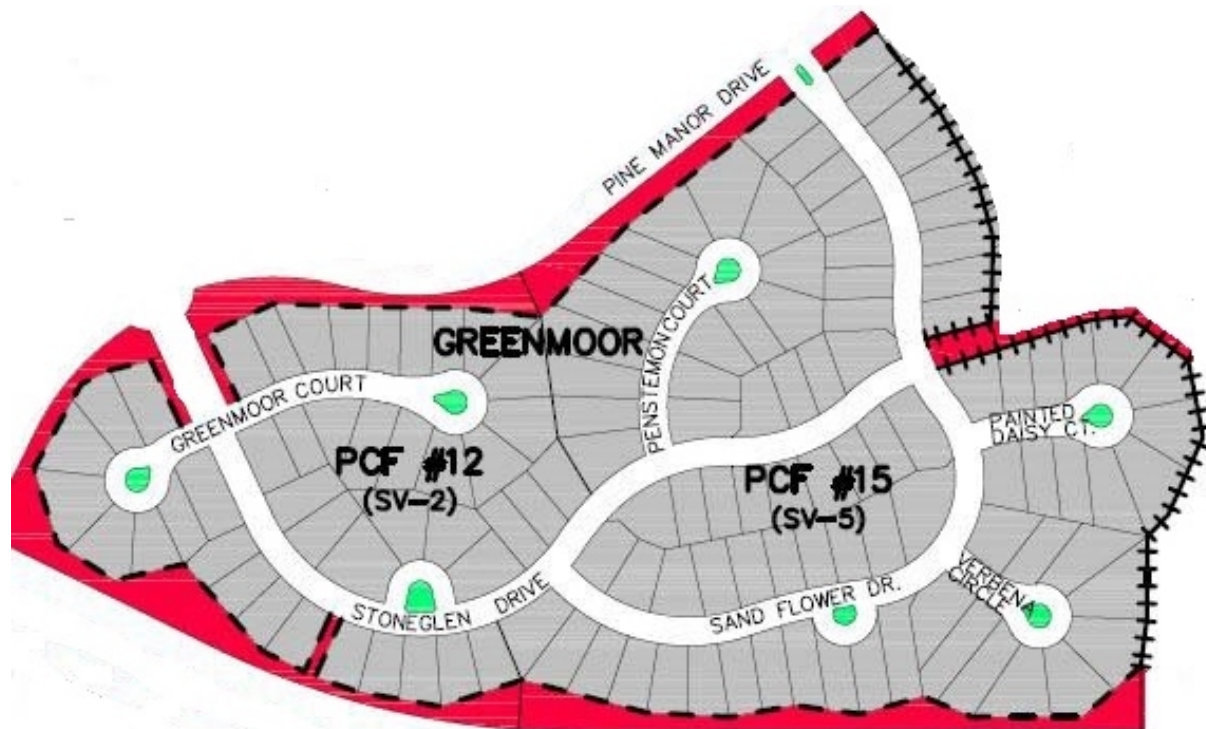
Oakgrove @ Pinecreek (24 homes)



Pine Brook @ Pinecreek (56 homes)

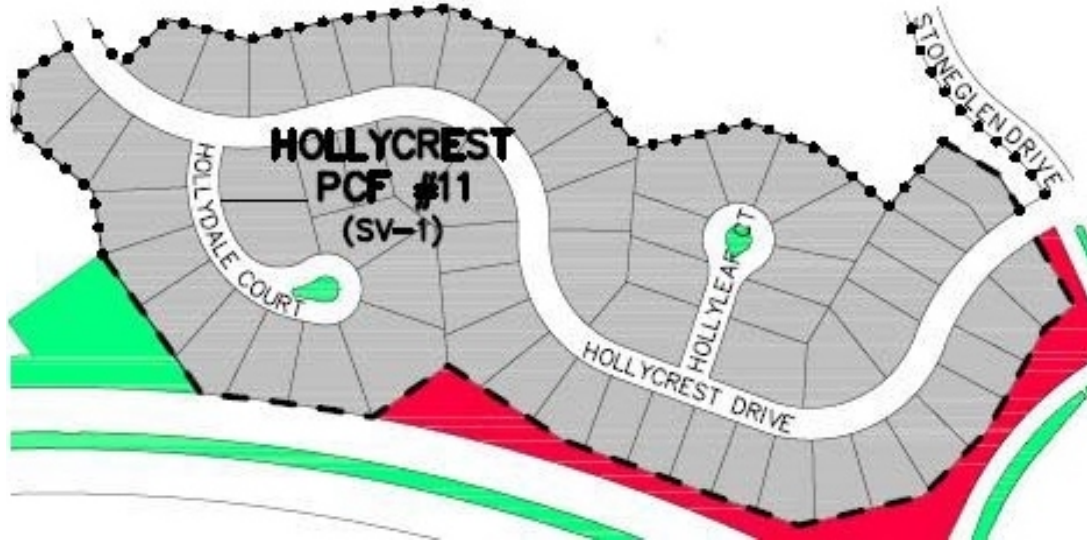


Greenmoor @ Pinecreek (132 homes)

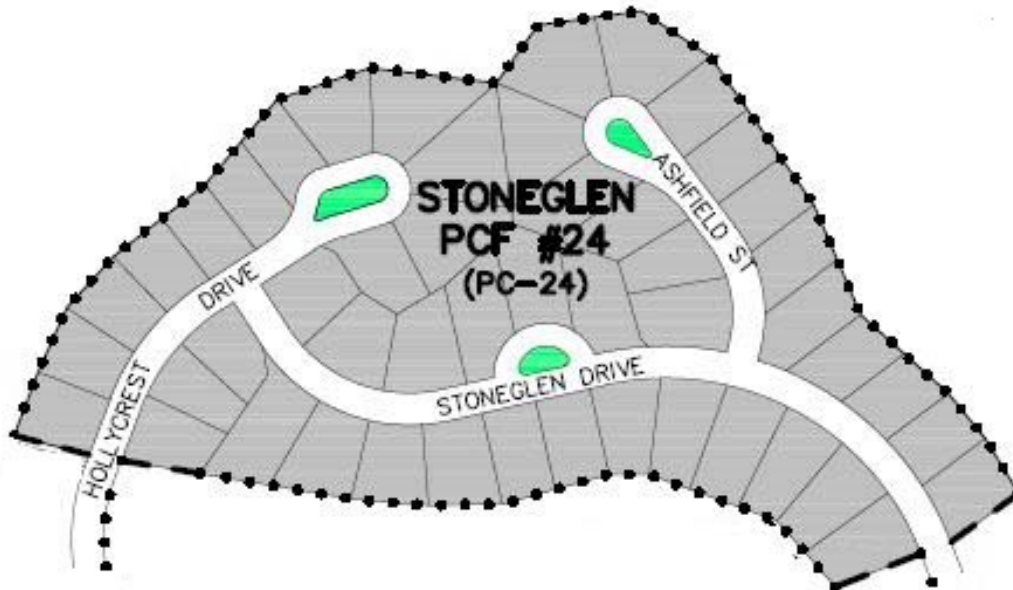


Hollycrest @ Pinecreek (63 homes)





Stoneglen @ Pinecreek (49 homes)





- Photos 01 thru 06 - Monument Signs  
- Main Entry, Carriages, Wildflower, Willow Glen, and Spanish Oaks



Photo #01 – Monument – Main Entry



Photo #02 – Monument – Main Entry



Photo #03 – Monument – Carriages



Photo #04 – Monument – Wildflower



Photo #05 – Monument – Willow Glen



Photo #06 – Monument – Spanish Oaks



Photos 07 thru 12 - Monument Signs

- Emerald Ridge, Glen Arbor, Blossom Hill, Promontory, Reverie, and Sage Hill



Photo #07 – Monument – Emerald Ridge



Photo #08 – Monument – Glen Arbor



Photo #09 – Monument – Blossom Hill



Photo #10 – Monument – Promontory



Photo #11 – Monument – Reverie



Photo #12 – Monument – Sage Hill



Photos 13 thru 18 - Monument Signs  
- Pinetop, Palisade, Pine Glade, Oak Meadow, Oak Knoll, and Pine Crest



Photo #13 – Monument – Pinetop



Photo #14 – Monument – Palisade



Photo #15 – Monument – Pine Glade



Photo #16 – Monument – Oak Meadow



Photo #17 – Monument – Oak Knoll



Photo #18 – Monument – Pinecrest



Photos 19 thru 24 - Monument Signs

- La Bellezza, Heartwood, Orchard Park, Sycamore Glen, Oak Grove, and Pinebrook



Photo #19 – Monument – La Bellezza



Photo #20 – Monument – Heartwood



Photo #21 – Monument – Orchard Park



Photo #22 – Monument – Sycamore Glen



Photo #23 – Monument – Oakgrove



Photo #24 – Monument – Pinebrook



Photos 25 thru 27 - Monument Signs  
- Greenmoor, Hollycrest & Stoneglen



Photo #25 – Monument – Greenmoor



Photo #26 – Monument - Hollycrest



Photo #27 – Monument – Stoneglen

Photo not used

Photos 28 thru 30 – Asphalt Pavement & Curb and Gutters



Photo #28 – Pavement - Willow Glen



Photo #29 – Pavement – Glen Arbor



Photo #30 – Pavement – Sage Hill

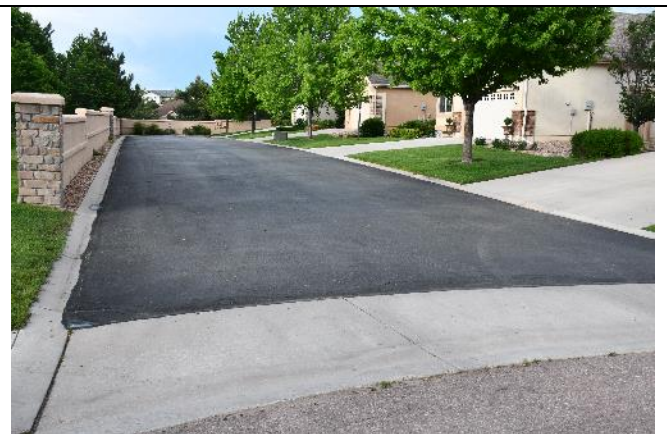


Photo #31 – Pavement – Sage Hill

Intentionally Left Blank



## 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?



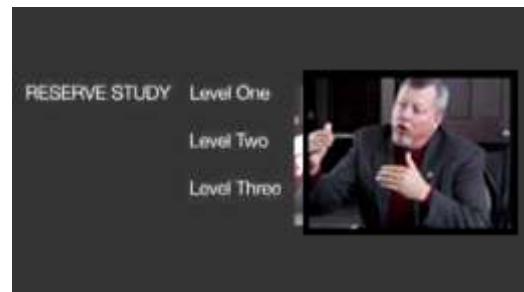
<https://youtu.be/40SodajTW1g>

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?



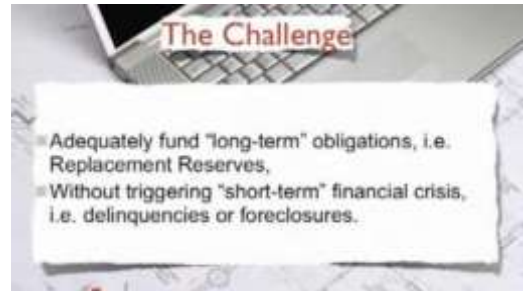
<https://youtu.be/SePdwVDvHWI>

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>