# LEVEL 2 REPLACEMENT RESERVE REPORT FY 2021 HAMPSHIRE GREENS HOA

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**Consultant:** 

# millerdodson

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MillerDodson.com

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# REPLACEMENT RESERVE REPORT

# HAMPSHIRE GREENS HOA

SILVER SPRING, MARYLAND August 6, 2020 Revised September 9, 2020 Revised October 6, 2020 Revised October 27, 2020



**Description.** Hampshire Greens HOA is a single family golf course located in Silver Spring, Maryland. Constructed in phases between 1997 and 2003, the community consists of 286 detached single-family Homes. The survey examined the common elements of the property, including:

- Entry Monuments and Retaining Walls.
- Concrete walks and Asphalt Paths.
- Fencing and Sitting Areas.
- Tot Lot and Tennis Court.
- Video Security System.

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

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Video Answers to Frequently Asked Questions

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

**Purpose.** The purpose of this Replacement Reserve Study is to provide Hampshire Greens HOA (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 yearby-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 reported 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 August 06, 2020 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 2021 covering the period from January 1, 2020 to December 31, 2020. The Replacement Reserves on deposit as of January 1, 2020 are proposed to be \$103,094. The reported current annual funding for reserves is \$30,899.

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.

**Acknowledgment.** Miller+Dodson Associates would like to acknowledge the assistance and input of Linda Wildman, Property Manager who provided very helpful insight into the current operations of the property.

**Analyst's Credentials.** Mr. Harvey "Sonny" Mosier has a degree in Business Administration and over 40 years' experience in project design, contract administration, and inspection of public and private facilities. As a consultant, Mr. Mosier has completed multiple facilities studies, life cycle cost studies, and analyses for repair verses replacement of facilities and systems. Sonny is currently a Reserve Specialist for Miller+Dodson Associates.

Respectfully Submitted,



Sonny Mosier
Harvey "Sonny" Mosier, RS
Reserve Specialist

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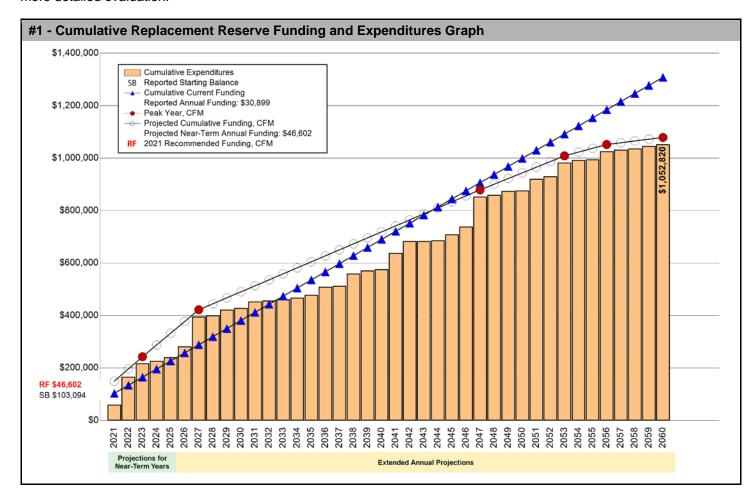
# **EXECUTIVE SUMMARY**

The Hampshire Greens HOA Replacement Reserve Analysis uses the Cash Flow Method (CFM) to calculate Replacement Reserve funding for the periodic replacement of the 45 Projected Replacements identified in the Replacement Reserve Inventory.

\$46,602 RECOMMENDED REPLACEMENT RESERVE FUNDING FOR THE STUDY YEAR, 2021 \$13.58 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 A.5.

Hampshire Greens HOA reports a Starting Balance of \$103,094 and Annual Funding totaling \$30,899. The reported Current Annual Funding of \$30,899 is inadequate to fund projected replacements starting in 2022. See Page A.3 for a more detailed evaluation.



The Current Funding Objective as calculated by the Component Method (Fully Funded) is \$323,033 making the reserve account 31.9% funded. See the Appendix for more information on this method.

#### **REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION**

The Hampshire Greens HOA Replacement Reserve Analysis calculations of recommended funding of Replacement Reserves by the Cash Flow Method (CFM) 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.

#### 2021 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, 2021.

## 40 Years | STUDY PERIOD

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

#### \$103,094 STARTING BALANCE

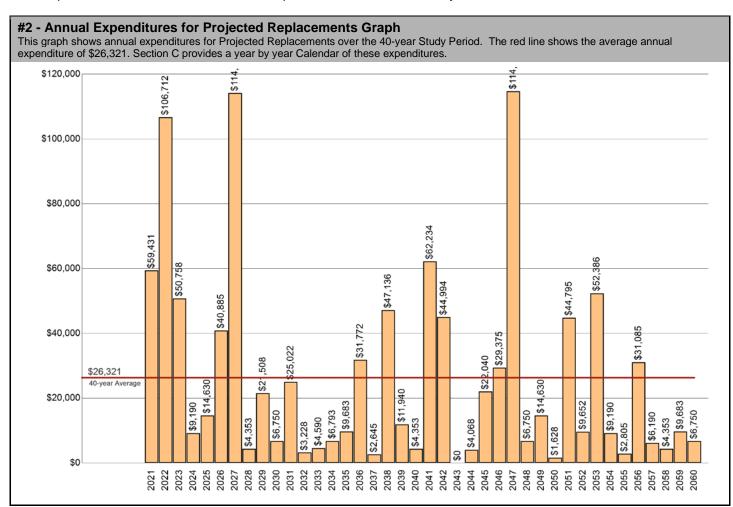
The Association reports Replacement Reserves on Deposit totaling \$103,094 at the start of the Study Year.

# 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).

## \$1,052,820 REPLACEMENT RESERVE INVENTORY - PROJECTED REPLACEMENTS

The Hampshire Greens HOA Replacement Reserve Inventory identifies 45 items that will require periodic replacement, that are to be funded from Replacement Reserves. We estimate the cost of these replacements will be \$1,052,820 over the 40-year Study Period. The Projected Replacements are divided into 2 major categories starting on Page B.3. Pages B.1-B.2 provide detailed information on the Replacement Reserve Inventory.



#### **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 A.4 and A.5. The Projected Replacements listed on Page C.2 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 A.5.

#### **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 A.5.

#### ANNUAL EXPENDITURES AND CURRENT FUNDING

The annual expenditures that comprise the \$1,052,820 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.

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Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Starting Balance	\$103,094									
Projected Replacements	(\$59,431)	(\$106,712)	(\$50,758)	(\$9,190)	(\$14,630)	(\$40,885)	(\$114,130)	(\$4,353)	(\$21,508)	(\$
Annual Deposit	\$30,899	\$30,899	\$30,899	\$30,899	\$30,899	\$30,899	\$30,899	\$30,899	\$30,899	\$3
End of Year Balance	\$74,562	(\$1,251)	(\$21,110)	\$599	\$16,868	\$6,882	(\$76,349)	(\$49,803)	(\$40,411)	(\$1
Cumulative Expenditures	(\$59,431)	(\$166,144)	(\$216,902)	(\$226,092)	(\$240,722)	(\$281,606)	(\$395,736)	(\$400,089)	(\$421,597)	(\$42
Cumulative Receipts	\$133,993	\$164,892	\$195,791	\$226,690	\$257,589	\$288,488	\$319,387	\$350,286	\$381,185	\$41
Year	2031	2032	2033	2034	2035	2036	2037	2038	2039	
Projected Replacements	(\$25,022)	(\$3,228)	(\$4,590)	(\$6,793)	(\$9,683)	(\$31,772)	(\$2,645)	(\$47,136)	(\$11,940)	(\$
Annual Deposit	\$30,899	\$30,899	\$30,899	\$30,899	\$30,899	\$30,899	\$30,899	\$30,899	\$30,899	\$3
End of Year Balance	(\$10,385)	\$17,286	\$43,595	\$67,701	\$88,918	\$88,045	\$116,299	\$100,062	\$119,021	\$14
Cumulative Expenditures	(\$453,369)	(\$456,596)	(\$461,186)	(\$467,979)	(\$477,662)	(\$509,434)	(\$512,079)	(\$559,214)	(\$571,154)	(\$57
Cumulative Receipts	\$442,983	\$473,882	\$504,781	\$535,680	\$566,579	\$597,478	\$628,377	\$659,276	\$690,175	\$72
Year	2041	2042	2043	2044	2045	2046	2047	2048	2049	
Projected Replacements	(\$62,234)	(\$44,994)		(\$4,068)	(\$22,040)	(\$29,375)	(\$114,708)	(\$6,750)	(\$14,630)	(\$
Annual Deposit	\$30,899	\$30,899	\$30,899	\$30,899	\$30,899	\$30,899	\$30,899	\$30,899	\$30,899	\$3
End of Year Balance	\$114,233	\$100,138	\$131,037	\$157,868	\$166,727	\$168,251	\$84,443	\$108,592	\$124,861	\$15
Cumulative Expenditures	(\$637,740)	(\$682,734)	(\$682,734)	(\$686,802)	(\$708,842)	(\$738,217)	(\$852,924)	(\$859,674)	(\$874,304)	(\$87
Cumulative Receipts	\$751,973	\$782,872	\$813,771	\$844,670	\$875,569	\$906,468	\$937,367	\$968,266	\$999,165	\$1,03
Year	2051	2052	2053	2054	2055	2056	2057	2058	2059	
Projected Replacements	(\$44,795)	(\$9,652)	(\$52,386)	(\$9,190)	(\$2,805)	(\$31,085)	(\$6,190)	(\$4,353)	(\$9,683)	(\$
Annual Deposit	\$30,899	\$30,899	\$30,899	\$30,899	\$30,899	\$30,899	\$30,899	\$30,899	\$30,899	\$3
End of Year Balance	\$140,236	\$161,483	\$139,996	\$161,705	\$189,799	\$189,614	\$214,323	\$240,869	\$262,085	\$28
	(\$920,727)	(\$930,379)	(\$982,765)	(\$991,955)	(\$994,760)	(\$1,025,845)	(\$1,032,035)	(\$1,036,388)	(\$1,046,070)	(\$1,05
Cumulative Expenditures	(\$920,727)	(ψ330,373)								

#### **EVALUATION OF CURRENT FUNDING**

The evaluation of Current Funding (Starting Balance of \$103,094 & annual funding of \$30,899), 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 45 Projected Replacements identified in the Replacement Reserve Inventory and that the Association will continue Annual Funding of \$30,899 throughout the 40-year Study Period.

Annual Funding of \$30,899 is approximately 66 percent of the \$46,602 recommended Annual Funding calculated by the Cash Flow Method for 2021, the Study Year.

The progression and effect of continued Current Annual Funding coupled with this studies Projected Replacements over the Study Period are evaluated in Table 3 above. Maintaining Current Annual Funding may result in inadequate End of Year Balances, noted in red.

See the Executive Summary for the Current Funding Statement.

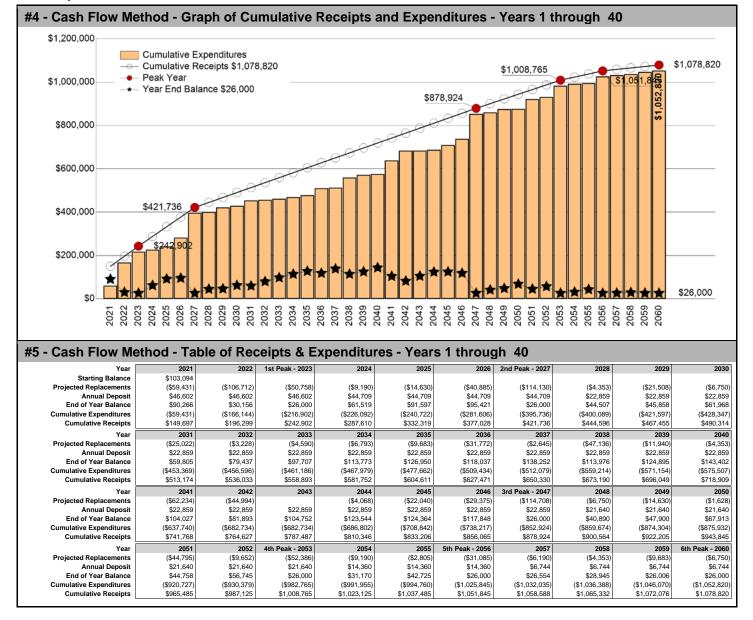
# CASH FLOW METHOD FUNDING

#### \$46,602 RECOMMENDED REPLACEMENT RESERVE FUNDING FOR 2021

\$13.58 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 2023 with Replacement Reserves on Deposit dropping to the Minimum Balance after the completion of \$216,902 of replacements from 2021 to 2023. Recommended funding is projected to decline from \$46,602 in 2023 to \$44,709 in 2024. Peak Years are identified in Chart 4 and Table 5.
- Minimum Balance. The calculations assume a Minimum Balance of \$26,000 will always be held in reserve, which is calculated by rounding the 12-month 40-year average annual expenditure of \$26,321 as shown on Graph #2.
- Cash Flow Method Study Period. Cash Flow Method calculates funding for \$1,052,820 of expenditures over the 40year Study Period. It does not include funding for any projects beyond 2060 and in 2060, the end of year balance will always be the Minimum Balance.



# 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.

#### \$46,602 2021 - CASH FLOW METHOD RECOMMENDED FUNDING

The 2021 Study Year calculations have been made using current replacement costs (see Page B.2), modified by the Analyst for any project specific conditions.

#### \$47,674 2022 - INFLATION ADJUSTED FUNDING

A new analysis calculates the 2022 funding based on three assumptions:

- Replacement Reserves on Deposit totaling \$90,266 on January 1, 2022.
- All 2021 Projected Replacements listed on Page C.2 accomplished at a cost to Replacement Reserves less than \$59,431.
- Construction Cost Inflation of 2.30 percent in 2021.

The \$47,674 inflation adjusted funding in 2022 is a 2.30 percent increase over the non-inflation adjusted funding of \$46,602.

#### \$48,771 2023 - INFLATION ADJUSTED FUNDING

A new analysis calculates the 2023 funding based on three assumptions:

- Replacement Reserves on Deposit totaling \$38,922 on January 1, 2023.
- All 2022 Projected Replacements listed on Page C.2 accomplished at a cost to Replacement Reserves less than \$107,616.
- Construction Cost Inflation of 2.30 percent in 2022.

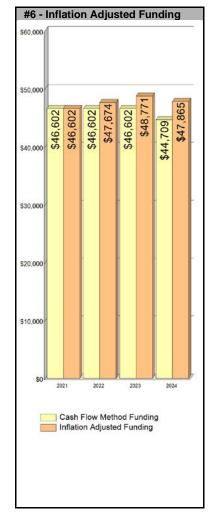
The \$48,771 inflation adjusted funding in 2023 is a 4.65 percent increase over the non-inflation adjusted funding of \$46,602.

# \$47,865 2024 - INFLATION ADJUSTED FUNDING

A new analysis calculates the 2024 funding based on three assumptions:

- Replacement Reserves on Deposit totaling \$82,484 on January 1, 2024.
- All 2023 Projected Replacements listed on Page C.2 accomplished at a cost to Replacement Reserves less than \$51,944.
- Construction Cost Inflation of 2.30 percent in 2023.

The \$47,865 inflation adjusted funding in 2024 is a 7.05 percent increase over the non-inflation adjusted funding of \$44,709.



#### Year Five and 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 to be professionally updated every 3 to 5 years.

#### **Inflation Adjustment**

Prior to approving a budget based upon the 2022, 2023 and 2024 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 percentage point), 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 2021, based on a 1.00 percent interest rate, we estimate the Association may earn \$967 on an average balance of \$96,680, \$646 on an average balance of \$64,594 in 2022, and \$607 on \$60,703 in 2023. The Association may elect to attribute 100 percent of the earned interest to Reserves, resulting in a reduction in the 2021 funding from \$46,602 to \$45,636 (a 2.07 percent reduction), \$47,674 to \$47,028 in 2022 (a 1.35 percent reduction), and \$48,771 to \$48,164 in 2023 (a 1.24 percent reduction).

**Hampshire Greens HOA** 

October 27, 2020

#### **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, as defined on Page A4. 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 45 Projected Replacements specifically listed in the Replacement Reserve Inventory. The inclusion/exclusion of items from the Replacement Reserve Inventory is discussed on Page B.1.

# REPLACEMENT RESERVE INVENTORY GENERAL INFORMATION

Hampshire Greens HOA - Replacement Reserve Inventory identifies 45 Projected Replacements.

PROJECTED REPLACEMENTS. 45 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 onetime replacement cost of \$414,209. Cumulative Replacements totaling \$1,052,820 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 \$1000 and/or a normal economic life of less than 3 years are typically excluded from funding from Replacement Reserves. This exclusion should reflect the 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 B.2.

Long-lived Items. Items are excluded from the Replacement Reserve Inventory when items are properly maintained and are assumed to have a life equal to the property.

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 45 items included in the Hampshire Greens HOA Replacement Reserve Inventory are divided into 2 major categories. Each category is printed on a separate page, beginning on page B.3.
- LEVEL OF SERVICE. This Replacement Reserve Inventory has been developed in compliance with the standards established for a Level 2 Update, as defined by the National Reserve Study Standards, established in 1998 by Community Associations Institute, which states:

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

# REPLACEMENT RESERVE INVENTORY - GENERAL INFORMATION (CONT'D)

• INVENTORY DATA. Each of the 45 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 (Years). The number of years that a new and properly installed item should be expected to remain in service.

Remaining Economic Life (Years). 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.

	ITEMS - SITE COMPONENTS CTED REPLACEMENTS						Economic Life (yrs) Economic Life (yrs)
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
1	Entry monument / retain. wall (5), repoint & reset	sf	200	\$12.20	10	3	\$2,440
2	Retaining wall, stone, replace	sf	520	\$112.00	80	1	\$58,240
3	Retaining wall, stone, repoint and reset (10%)	sf	65	\$12.20	10	20	\$793
4	Retaining wall, segmental block (replace)	sf	210	\$58.70	80	58	\$12,327
5	Retaining wall, segmental block (reset 30%)	sf	63	\$45.00	40	18	\$2,835
6	Electrical service & meter - Entrance monument	ea	3	\$2,250.00	60	46	\$6,750
7	Electrical distribution panels - Entrance monuments	ea	3	\$1,520.00	60	46	\$4,560
8	Lighting, LED flood - Entrance monument	ea	2	\$190.00	25	20	\$380
9	Lighting, ground mounted flood - Entrance	ea	23	\$220.00	20	6	\$5,060
10	Asphalt path, overlay	sy	1,550	\$29.36	15	2	\$45,508
11	Asphalt path, seal coat	sy	1,550	\$1.05	3	5	\$1,628
12	Concrete flatwork (6%)	sf	194	\$12.85	6	1	\$2,493
13	Bench, metal (50%)	ea	7	\$860.00	20	8	\$6,020
14	Bench, metal (50%)	ea	7	\$860.00	20	4	\$6,020
15	Picnic table, metal (50%)	ea	3	\$1,935.00	20	8	\$5,805
16	Picnic table, metal (50%)	ea	3	\$1,935.00	20	4	\$5,805
17	Trash can, metal (50%)	ea	3	\$935.00	10	8	\$2,805
18	Trash can, metal (50%)	ea	3	\$935.00	10	4	\$2,805
19	Tree Replacement (allowance)	ls	1	\$2,000.00	5	none	\$2,000
			Rep	lacement Costs -	Page	Subtotal	\$174,273

#### **COMMENTS**

- Item #2: Retaining wall, stone, replace The replacement costs are for preliminary budgeting purposes only, based upon limited information and do not include any reserve or contingency for inflation or unforeseeable construction requirements. Accurate cost figures for the required remedial work cannot be properly developed until design work (preparation of specifications, proposals and permits) has been completed and approved by the Association. We will revise our replacement cost projections once the Association provided.
- Item #9: Lighting, ground mounted flood Entrance monument Lighting cost estimates includes allowance for replacement of the wiring.
- Item #19: Tree Replacement (allowance) Allowance provided based on discussions with Ms. Wildman.

	ITEMS - SECURITY CAMERA SYSTEM ECTED REPLACEMENTS						I Economic Life (yrs) g Economic Life (yrs)
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
20	Security Camera Pole	ea	3	\$940.00	30	24	\$2,820
21	Security Camera - Bullet IP	ea	7	\$750.00	6	2	\$5,250
22	Security Camera - LPR IP	ea	3	\$2,250.00	6	3	\$6,750
23	Security Camera - Video Encoder	ea	3	\$620.00	6	1	\$1,860
24	Security Camera - Video Encoder (for recorders)	ea	3	\$695.00	6	6	\$2,085
25	Security Camera - NEMP Enclosures	ea	3	\$570.00	12	6	\$1,710
26	Security Camera - Recorders	ea	3	\$835.00	6	6	\$2,505

Replacement Costs - Page Subtotal \$22,980

# **COMMENTS**

- Item #20: Security Camera Pole Replacement cost and life expectancy based on discussions with Rob Levin of Vector Security.
- Item #24: Security Camera Video Encoder (for recorders) Includes POE switch

	UNIT			NEL- Normal Economic Life (yrs) REL- Remaining Economic Life (yrs)			
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
27	Tennis court, asphalt overlay	sf	12,790	\$6.60	20	6	\$84,414
28	Tennis court, color coat (3 coats)	sf	12,790	\$1.80	5	none	\$23,022
29	Tennis court, post & footings	pr	2	\$1,280.00	20	6	\$2,560
30	Tennis court, fence, 10' chain link	ft	455	\$31.20	20	6	\$14,196
31	Gazebo, 10' octagon, PLT-wood w/standing seam	ea	1	\$9,800.00	25	5	\$9,800
32	Gazebo, 10' octagon, PLT-wood - refurbish wood	ls	1	\$1,600.00	5	1	\$1,600
33	Tot Lot (A) - MP structure, Eagle # 19-04-GWMP-B	ea	1	\$26,260.00	20	none	\$26,260
34	Tot Lot (A) -CC Rock Wall	ea	1	\$2,076.00	20	none	\$2,076
35	Tot Lot (A) - border recycled plastic	lf	166	\$17.35	30	none	\$2,880
36	Tot Lot (A) - surfacing, wood mulch (6")	су	37	\$64.00	60	none	\$2,368
37	Tot Lot (A) - Bench #SF333-6PERF	ea	1	\$825.00	20	none	\$825
38	Tot lot (B), MP structure, Eagle # 14-02-SGMP	ea	1	\$30,890.00	20	1	\$30,890
39	Tot lot (B),Mini Spinner	ea	1	\$1,569.00	20	1	\$1,569
40	Tot lot (B), 4-seat bouncer	ea	1	\$2,535.00	20	1	\$2,535
41	Tot lot (B), border recycled plastic	ft	153	\$17.35	30	1	\$2,655
42	Tot lot (B) surfacing, wood mulch (4")	су	34	\$64.00	60	1	\$2,176
43	Tot lot (B) Bench # SF333-6PERF	ea	2	\$825.00	20	1	\$1,650
44	Tot lot (B) Trash Can # SFTR-32PERF)	ea	1	\$1,045.00	15	1	\$1,045
45	Tot lot (B), fence, vinyl 3-rail & post	ft	144	\$30.80	30	5	\$4,435

Replacement Costs - Page Subtotal

\$216,956

#### **COMMENTS**

- Item #30: Tennis court, fence, 10' chain link Fence replacement cost includes allowance for gate.
- Item #32: Gazebo, 10' octagon, PLT-wood refurbish wood structure Estimated cost the power wash, minor repairs, replace missing bench section, stain and seal wood components
- Item #33: Tot Lot (A) MP structure, Eagle # 19-04-GWMP-B Cost includes removal and disposal of older equipment
- Item #38: Tot lot (B), MP structure, Eagle # 14-02-SGMP Cost includes removal and disposal of older equipment
- Item #42: Tot lot (B) surfacing, wood mulch (4") Cost is for new installation of safety surfacing. We have assumed that regular maintenance of mulch will be budgeted in the Operating Budget.

**Hampshire Greens HOA** 

October 27, 2020

VALUA Excluded	ATION EXCLUSIONS Items						
	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
	Site lighting fixtures						EXCLUDED
	Miscellaneous signage						EXCLUDED

#### **VALUATION EXCLUSIONS**

- 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 \$1000 have not been scheduled for funding from Replacement Reserve. Examples of items excluded 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 (\$)	NEL	REL	REPLACEMENT COST (\$)
Exterior brick veneer			3331 (4)			EXCLUDED
Building foundation(s)						EXCLUDED
Concrete floor slabs (interior)						EXCLUDED
Wall, floor, & roof structure						EXCLUDED
Fire protection/security systems						EXCLUDED
Electrical wiring						EXCLUDED
Water piping at common facilities						EXCLUDED
Waste piping at common facilities						EXCLUDED
Gas services at common facilities						EXCLUDED

#### **LONG-LIFE EXCLUSIONS**

- 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.

#	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	REPLACEMENT COST (\$)	NEL	REL	REPLACEI CO:
	Domestic water pipes serving one unit						EXCLUDE
	Sanitary sewers serving one unit						EXCLUD
	Electrical wiring serving one unit						EXCLUD
	Cable TV service serving one unit						EXCLUD
	Telephone service serving one unit						EXCLUD
	Gas service serving one unit						EXCLUD
	Driveway on an individual lot						EXCLUD
	Apron on an individual lot						EXCLUD
	Sidewalk on an individual lot						EXCLUD
	Stairs on an individual lot						EXCLUD
	Curb & gutter on an individual lot						EXCLUD
	Retaining wall on an individual lot						EXCLUD
	Fence on an individual lot						EXCLUD
	Unit exterior						EXCLUD
	Unit windows						EXCLUD
	Unit doors						EXCLUD
	Unit skylights						EXCLUD
	Unit deck, patio, and/or balcony						EXCLUD
	Unit mailbox						EXCLUD
	Unit interior						EXCLUD
	Unit HVAC system						EXCLUD
	•						

#### **UNIT IMPROVEMENTS EXCLUSIONS**

- 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.

LITH ITV EVOLUCIONS						
UTILITY EXCLUSIONS Excluded Items						
ITEM ITEM		NUMBER	UNIT REPLACEMENT			REPLACEMENT
# DESCRIPTION	UNIT	OF UNITS	COST (\$)	NEL	REL	COST (\$)
Primary electric feeds						EXCLUDED
Electric transformers						EXCLUDED
Cable TV systems and structures						EXCLUDED
Telephone cables and structures						EXCLUDED
Site lighting						EXCLUDED
Gas mains and meters						EXCLUDED
Water mains and meters						EXCLUDED
Sanitary sewers						EXCLUDED
Stormwater management system						EXCLUDED

### **UTILITY EXCLUSIONS**

- 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.

**Hampshire Greens HOA** 

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MAIN Excluded	TENANCE AND REPAIR EXCLUSIONS Items						
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
	Landscaping and site grading			3331 (4)			EXCLUDED
	Exterior painting						EXCLUDED
	Repair services						EXCLUDED
	Partial replacements						EXCLUDED
	Capital improvements						EXCLUDED
ı							

#### **MAINTENANCE AND REPAIR EXCLUSIONS**

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

**Hampshire Greens HOA** 

October 27, 2020

COVERNMENT EVOLUCIONS						
GOVERNMENT EXCLUSIONS  Excluded Items						
		AH IMPED	UNIT			DEDI AGEMENT
ITEM ITEM # DESCRIPTION	UNIT	NUMBER OF UNITS	REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
Government, roadways & parking						EXCLUDED
Government, sidewalks & curbs						EXCLUDED
Government, lighting						EXCLUDED
Government, stormwater mgmt.						EXCLUDED
Government, ponds						EXCLUDED
Government, mailboxes						EXCLUDED

#### **GOVERNMENT EXCLUSIONS**

- 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 rights-of-way, including adjacent properties and adjacent roadways.
- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

IRRIGATION SYSTEM EXCLUSIONS						
Excluded Items			UNIT			
ITEM ITEM # DESCRIPTION	UNIT	NUMBER OF UNITS	REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
Subsurface irrigation pipe			.,,			EXCLUDED
Subsurface irrigation valve						EXCLUDED
Subsurface irrigation control wiring						EXCLUDED
Irrigation control system						EXCLUDED
Irrigation system electrical service						EXCLUDED
Irrigation system enclosures						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 online and again each fall when they are winterized. Repair(s) and or replacement(s) should be made in conjunction with these semiannual inspections.

# PROJECTED ANNUAL REPLACEMENTS GENERAL INFORMATION

CALENDAR OF ANNUAL REPLACEMENTS. The 45 Projected Replacements in the Hampshire Greens HOA 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 C.2.

# 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 Study Period, 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 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 8**

	PROJECTED				
Item	2021 - Study Year	\$	Item	2022 - YEAR 1	\$
19	Tree Replacement (allowance)	\$2,000	2	Retaining wall, stone, replace	\$58,240
28	Tennis court, color coat (3 coats)	\$23,022	12	Concrete flatwork (6%)	\$2,493
33	Tot Lot (A) - MP structure, Eagle # 19-04-GWMP-B	\$26,260	23	Security Camera - Video Encoder	\$1,860
34	Tot Lot (A) - OC Rock Wall	\$2,076	32	Gazebo, 10' octagon, PLT-wood - refurbish wood	\$1,600
	Tot Lot (A) - CC Rock Wall  Tot Lot (A) - border recycled plastic	\$2,076	38	Tot lot (B), MP structure, Eagle # 14-02-SGMP	
35	( )				\$30,890
36	Tot Lot (A) - surfacing, wood mulch (6")	\$2,368	39	Tot lot (B), A goot beginner	\$1,569
37	Tot Lot (A) - Bench #SF333-6PERF	\$825	40	Tot lot (B), 4-seat bouncer	\$2,535
			41	Tot lot (B), border recycled plastic	\$2,655
			42	Tot lot (B) surfacing, wood mulch (4")	\$2,176
			43	Tot lot (B) Bench # SF333-6PERF	\$1,650
			44	Tot lot (B) Trash Can # SFTR-32PERF)	\$1,045
1			l		
Total S	Scheduled Replacements	\$59,431	Total	Scheduled Replacements	\$106,712
Item	2023 - YEAR 2	\$	Item	2024 - YEAR 3	\$
10	Asphalt path, overlay	\$45,508	1	Entry monument / retain. wall (5), repoint & reset (10%)	\$2,440
21	Security Camera - Bullet IP	\$5,250	22	Security Camera - LPR IP	\$6,750
	•			•	
Total S	Scheduled Replacements	\$50,758	Total	Scheduled Replacements	\$9,190
	OCCUPANT AND A	•		2000 1/540 -	•
Item	2025 - YEAR 4	\$	Item	2026 - YEAR 5	\$
14	Bench, metal (50%)	\$6,020	11	Asphalt path, seal coat	\$1,628
16	Picnic table, metal (50%)	\$5,805	19	Tree Replacement (allowance)	\$2,000
18	Trash can, metal (50%)	\$2,805	28	Tennis court, color coat (3 coats)	\$23,022
			31	Gazebo, 10' octagon, PLT-wood w/standing seam metal	\$9,800
			45	Tot lot (B), fence, vinyl 3-rail & post	\$4,435
1					
I otal S	Scheduled Replacements	\$14,630	I otal S	Scheduled Replacements	\$40,885
Item	2027 - YEAR 6	\$	Item	2028 - YEAR 7	\$
9	Lighting, ground mounted flood - Entrance monument	\$5,060	12	Concrete flatwork (6%)	\$2,493
24	Security Camera - Video Encoder (for recorders)	\$2,085	23	Security Camera - Video Encoder	\$1,860
25	Security Camera - NEMP Enclosures	\$1,710			
26	Security Camera - Recorders	\$2,505			
	•	\$84,414			
27	Tennis court, asphalt overlay				
		\$2.560			
29	Tennis court, post & footings	\$2,560 \$14.196			
29 30	Tennis court, post & footings Tennis court, fence, 10' chain link	\$14,196			
29	Tennis court, post & footings				
29 30	Tennis court, post & footings Tennis court, fence, 10' chain link	\$14,196			
29 30	Tennis court, post & footings Tennis court, fence, 10' chain link	\$14,196			
29 30	Tennis court, post & footings Tennis court, fence, 10' chain link	\$14,196			
29 30	Tennis court, post & footings Tennis court, fence, 10' chain link	\$14,196			
29 30	Tennis court, post & footings Tennis court, fence, 10' chain link	\$14,196			
29 30 32	Tennis court, post & footings Tennis court, fence, 10' chain link	\$14,196	Total S	Scheduled Replacements	\$4,353

	PROJEC	TED REPLACEN	/IENT	S - YEARS 9 TO 16	
Item	2029 - YEAR 8	\$	Item	2030 - YEAR 9	\$
11	Asphalt path, seal coat	\$1,628	22	Security Camera - LPR IP	\$6,750
13	Bench, metal (50%)	\$6,020			
15	Picnic table, metal (50%)	\$5,805			
17	Trash can, metal (50%)	\$2,805			
21	Security Camera - Bullet IP	\$5,250			
Total S	Scheduled Replacements	\$21,508	Total S	Scheduled Replacements	\$6,750

Total Scheduled Replacements		\$21,508	Total S	\$6,750	
Item	2031 - YEAR 10	\$	Item	2032 - YEAR 11	\$
19	Tree Replacement (allowance)	\$2,000	11	Asphalt path, seal coat	\$1,628
28	Tennis court, color coat (3 coats)	\$23,022	32	Gazebo, 10' octagon, PLT-wood - refurbish wood	\$1,600
Total S	Scheduled Replacements	\$25,022	Total S	Scheduled Replacements	\$3,228

Item	2033 - YEAR 12	\$	Item	2034 - YEAR 13	\$
24	Security Camera - Video Encoder (for recorders)	\$2,085	1	Entry monument / retain. wall (5), repoint & reset (10%)	\$2,440
26	Security Camera - Recorders	\$2,505	12	Concrete flatwork (6%)	\$2,493
			23	Security Camera - Video Encoder	\$1,860
Total S	Scheduled Replacements	\$4,590	Total 9	Scheduled Replacements	\$6,793
i olai s	ocheduled Replacements	φ4,590	Total	ocheduled Replacements	φ0,793

Item	2035 - YEAR 14	\$	Item	2036 - YEAR 15	\$
11	Asphalt path, seal coat	\$1,628	19	Tree Replacement (allowance)	\$2,000
18	Trash can, metal (50%)	\$2,805	22	Security Camera - LPR IP	\$6,750
21	Security Camera - Bullet IP	\$5,250	28	Tennis court, color coat (3 coats)	\$23,022
Total S	Scheduled Replacements	\$9,683	Total S	scheduled Replacements	\$31,772

# **PROJECTED REPLACEMENTS - YEARS 17 TO 24**

	037 - YEAR 16 PLT-wood - refurbish wood # SFTR-32PERF)	\$ \$1,600 \$1,045	10 11	2038 - YEAR 17 Asphalt path, overlay Asphalt path, seal coat	\$ \$45,508 \$1,628
Total Scheduled Replacement	s	\$2,645	Total S	Scheduled Replacements	\$47,136
5 Retaining wall, segme 17 Trash can, metal (50%	deo Encoder (for recorders) MP Enclosures	\$ \$2,835 \$2,805 \$2,085 \$1,710 \$2,505	12 23	2040 - YEAR 19  Concrete flatwork (6%)  Security Camera - Video Encoder	\$ \$2,493 \$1,860
Total Scheduled Replacement	s	\$11,940	Total S	Scheduled Replacements	\$4,353
3 Retaining wall, stone, 8 Lighting, LED flood - 11 Asphalt path, seal coa 19 Tree Replacement (al 21 Security Camera - Bu 28 Tennis court, color co	at lowance) llet IP at (3 coats) ture, Eagle # 19-04-GWMP-B Wall	\$ \$793 \$380 \$1,628 \$2,000 \$5,250 \$23,022 \$26,260 \$2,076 \$825	Item   22   32   38   39   40   43	2042 - YEAR 21  Security Camera - LPR IP Gazebo, 10' octagon, PLT-wood - refurbish wood Tot lot (B), MP structure, Eagle # 14-02-SGMP Tot lot (B),Mini Spinner Tot lot (B), 4-seat bouncer Tot lot (B) Bench # SF333-6PERF	\$ \$6,750 \$1,600 \$30,890 \$1,569 \$2,535 \$1,650
Total Scheduled Replacement	s	\$62,234	Total S	Scheduled Replacements	\$44,994
Item 2	043 - YEAR 22	\$	1 11 11	2044 - YEAR 23 Entry monument / retain. wall (5), repoint & reset (10%) Asphalt path, seal coat	\$ \$2,440 \$1,628
No Scheduled Replacements			T-4-17	Scheduled Replacements	\$4,068

# PROJECTED REPLACEMENTS - YEARS 25 TO 32

Item	2045 - YEAR 24	\$	Item	2046 - YEAR 25	\$
14	Bench, metal (50%)	\$6,020	12	Concrete flatwork (6%)	\$2,493
16	Picnic table, metal (50%)	\$5,805	19	Tree Replacement (allowance)	\$2,000
18	Trash can, metal (50%)	\$2,805	23	Security Camera - Video Encoder	\$1,860
20	Security Camera Pole	\$2,820	28	Tennis court, color coat (3 coats)	\$23,022
24	Security Camera - Video Encoder (for recorders)	\$2,085			
26	Security Camera - Recorders	\$2,505			
Total 9	Scheduled Replacements	\$22,040	Total 9	Scheduled Replacements	\$29,375
rotare	onedated replacements	Ψ22,010	rotart	onio dallo di Ropi de omini di	Ψ20,070
Item	2047 - YEAR 26	\$	Item	2048 - YEAR 27	\$
9	Lighting, ground mounted flood - Entrance monument	\$5,060	22	Security Camera - LPR IP	\$6,750
11	Asphalt path, seal coat	\$1,628			
21	Security Camera - Bullet IP	\$5,250			
27	Tennis court, asphalt overlay	\$84,414			
29	Tennis court, post & footings	\$2,560			
30	Tennis court, fence, 10' chain link	\$14,196			
32	Gazebo, 10' octagon, PLT-wood - refurbish wood	\$1,600			
Total S	Scheduled Replacements	\$114,708	Total 9	Scheduled Replacements	\$6,750
Item	2049 - VEAR 28	\$	Item	2050 - YEAR 29	\$
Item	2049 - YEAR 28 Bench, metal (50%)	\$ \$6.020	Item	2050 - YEAR 29 Asphalt path, seal coat	\$ \$1 628
13	Bench, metal (50%)	\$6,020	Item 11	2050 - YEAR 29 Asphalt path, seal coat	\$ \$1,628
	Bench, metal (50%) Picnic table, metal (50%)	\$6,020 \$5,805			
13 15	Bench, metal (50%)	\$6,020			
13 15	Bench, metal (50%) Picnic table, metal (50%)	\$6,020 \$5,805			
13 15	Bench, metal (50%) Picnic table, metal (50%)	\$6,020 \$5,805			
13 15	Bench, metal (50%) Picnic table, metal (50%)	\$6,020 \$5,805			
13 15	Bench, metal (50%) Picnic table, metal (50%)	\$6,020 \$5,805			
13 15	Bench, metal (50%) Picnic table, metal (50%)	\$6,020 \$5,805			
13 15	Bench, metal (50%) Picnic table, metal (50%)	\$6,020 \$5,805			
13 15	Bench, metal (50%) Picnic table, metal (50%)	\$6,020 \$5,805			
13 15	Bench, metal (50%) Picnic table, metal (50%)	\$6,020 \$5,805			
13 15	Bench, metal (50%) Picnic table, metal (50%)	\$6,020 \$5,805			
13 15 17	Bench, metal (50%) Picnic table, metal (50%) Trash can, metal (50%)	\$6,020 \$5,805 \$2,805	11	Asphalt path, seal coat	\$1,628
13 15 17	Bench, metal (50%) Picnic table, metal (50%)	\$6,020 \$5,805	11		
13 15 17	Bench, metal (50%) Picnic table, metal (50%) Trash can, metal (50%)	\$6,020 \$5,805 \$2,805	11	Asphalt path, seal coat	\$1,628
13 15 17 Total S	Bench, metal (50%) Picnic table, metal (50%) Trash can, metal (50%)  Scheduled Replacements	\$6,020 \$5,805 \$2,805	Total \$	Asphalt path, seal coat	\$1,628 \$1,628
13 15 17 Total S	Bench, metal (50%) Picnic table, metal (50%) Trash can, metal (50%)  Scheduled Replacements  2051 - YEAR 30	\$6,020 \$5,805 \$2,805 \$14,630	Total \$	Asphalt path, seal coat  Scheduled Replacements  2052 - YEAR 31	\$1,628 \$1,628
13 15 17 Total S	Bench, metal (50%) Picnic table, metal (50%) Trash can, metal (50%)  Scheduled Replacements  2051 - YEAR 30  Retaining wall, stone, repoint and reset (10%)	\$6,020 \$5,805 \$2,805 \$14,630	Total S	Asphalt path, seal coat  Scheduled Replacements  2052 - YEAR 31  Concrete flatwork (6%)	\$1,628 \$1,628 \$2,493
13 15 17 Total S	Bench, metal (50%) Picnic table, metal (50%) Trash can, metal (50%)  Scheduled Replacements  2051 - YEAR 30  Retaining wall, stone, repoint and reset (10%) Tree Replacement (allowance)	\$6,020 \$5,805 \$2,805 \$14,630 \$ \$793 \$2,000	Total \$   Item   12   23	Asphalt path, seal coat  Scheduled Replacements  2052 - YEAR 31  Concrete flatwork (6%) Security Camera - Video Encoder Gazebo, 10' octagon, PLT-wood - refurbish wood Tot lot (B), border recycled plastic	\$1,628 \$1,628 \$ \$2,493 \$1,860
Total S  Item 3 19 24	Bench, metal (50%) Picnic table, metal (50%) Trash can, metal (50%)  Scheduled Replacements  2051 - YEAR 30  Retaining wall, stone, repoint and reset (10%) Tree Replacement (allowance) Security Camera - Video Encoder (for recorders)	\$6,020 \$5,805 \$2,805 \$14,630 \$793 \$2,000 \$2,085 \$1,710 \$2,505	Total \$   Item   12   23   32	Asphalt path, seal coat  Scheduled Replacements  2052 - YEAR 31  Concrete flatwork (6%) Security Camera - Video Encoder Gazebo, 10' octagon, PLT-wood - refurbish wood	\$1,628 \$1,628 \$2,493 \$1,860 \$1,600
Total S  Item 3 19 24 25	Bench, metal (50%) Picnic table, metal (50%) Trash can, metal (50%)  Scheduled Replacements  2051 - YEAR 30  Retaining wall, stone, repoint and reset (10%) Tree Replacement (allowance) Security Camera - Video Encoder (for recorders) Security Camera - NEMP Enclosures Security Camera - Recorders Tennis court, color coat (3 coats)	\$6,020 \$5,805 \$2,805 \$14,630 \$793 \$2,000 \$2,085 \$1,710 \$2,505 \$23,022	Total 3    Item   12   23   32   41	Asphalt path, seal coat  Scheduled Replacements  2052 - YEAR 31  Concrete flatwork (6%) Security Camera - Video Encoder Gazebo, 10' octagon, PLT-wood - refurbish wood Tot lot (B), border recycled plastic	\$1,628 \$1,628 \$ \$2,493 \$1,860 \$1,600 \$2,655
Total 5  Item 3 19 24 25 26 28 31	Bench, metal (50%) Picnic table, metal (50%) Trash can, metal (50%)  Scheduled Replacements  2051 - YEAR 30  Retaining wall, stone, repoint and reset (10%) Tree Replacement (allowance) Security Camera - Video Encoder (for recorders) Security Camera - NEMP Enclosures Security Camera - Recorders Tennis court, color coat (3 coats) Gazebo, 10' octagon, PLT-wood w/standing seam metal	\$6,020 \$5,805 \$2,805 \$14,630 \$793 \$2,000 \$2,085 \$1,710 \$2,505 \$23,022 \$9,800	Total 3    Item   12   23   32   41	Asphalt path, seal coat  Scheduled Replacements  2052 - YEAR 31  Concrete flatwork (6%) Security Camera - Video Encoder Gazebo, 10' octagon, PLT-wood - refurbish wood Tot lot (B), border recycled plastic	\$1,628 \$1,628 \$ \$2,493 \$1,860 \$1,600 \$2,655
13 15 17 Total S Item 3 19 24 25 26 28	Bench, metal (50%) Picnic table, metal (50%) Trash can, metal (50%)  Scheduled Replacements  2051 - YEAR 30  Retaining wall, stone, repoint and reset (10%) Tree Replacement (allowance) Security Camera - Video Encoder (for recorders) Security Camera - NEMP Enclosures Security Camera - Recorders Tennis court, color coat (3 coats)	\$6,020 \$5,805 \$2,805 \$14,630 \$793 \$2,000 \$2,085 \$1,710 \$2,505 \$23,022	Total 3    Item   12   23   32   41	Asphalt path, seal coat  Scheduled Replacements  2052 - YEAR 31  Concrete flatwork (6%) Security Camera - Video Encoder Gazebo, 10' octagon, PLT-wood - refurbish wood Tot lot (B), border recycled plastic	\$1,628 \$1,628 \$ \$2,493 \$1,860 \$1,600 \$2,655
Total 5  Item 3 19 24 25 26 28 31	Bench, metal (50%) Picnic table, metal (50%) Trash can, metal (50%)  Scheduled Replacements  2051 - YEAR 30  Retaining wall, stone, repoint and reset (10%) Tree Replacement (allowance) Security Camera - Video Encoder (for recorders) Security Camera - NEMP Enclosures Security Camera - Recorders Tennis court, color coat (3 coats) Gazebo, 10' octagon, PLT-wood w/standing seam metal	\$6,020 \$5,805 \$2,805 \$14,630 \$793 \$2,000 \$2,085 \$1,710 \$2,505 \$23,022 \$9,800	Total 3    Item   12   23   32   41	Asphalt path, seal coat  Scheduled Replacements  2052 - YEAR 31  Concrete flatwork (6%) Security Camera - Video Encoder Gazebo, 10' octagon, PLT-wood - refurbish wood Tot lot (B), border recycled plastic	\$1,628 \$1,628 \$ \$2,493 \$1,860 \$1,600 \$2,655
Total 5  Item 3 19 24 25 26 28 31	Bench, metal (50%) Picnic table, metal (50%) Trash can, metal (50%)  Scheduled Replacements  2051 - YEAR 30  Retaining wall, stone, repoint and reset (10%) Tree Replacement (allowance) Security Camera - Video Encoder (for recorders) Security Camera - NEMP Enclosures Security Camera - Recorders Tennis court, color coat (3 coats) Gazebo, 10' octagon, PLT-wood w/standing seam metal	\$6,020 \$5,805 \$2,805 \$14,630 \$793 \$2,000 \$2,085 \$1,710 \$2,505 \$23,022 \$9,800	Total 3    Item   12   23   32   41	Asphalt path, seal coat  Scheduled Replacements  2052 - YEAR 31  Concrete flatwork (6%) Security Camera - Video Encoder Gazebo, 10' octagon, PLT-wood - refurbish wood Tot lot (B), border recycled plastic	\$1,628 \$1,628 \$ \$2,493 \$1,860 \$1,600 \$2,655
13 15 17 Total \$ Item 3 19 24 25 26 28 31	Bench, metal (50%) Picnic table, metal (50%) Trash can, metal (50%)  Scheduled Replacements  2051 - YEAR 30  Retaining wall, stone, repoint and reset (10%) Tree Replacement (allowance) Security Camera - Video Encoder (for recorders) Security Camera - NEMP Enclosures Security Camera - Recorders Tennis court, color coat (3 coats) Gazebo, 10' octagon, PLT-wood w/standing seam metal	\$6,020 \$5,805 \$2,805 \$14,630 \$793 \$2,000 \$2,085 \$1,710 \$2,505 \$23,022 \$9,800	Total 3    Item   12   23   32   41	Asphalt path, seal coat  Scheduled Replacements  2052 - YEAR 31  Concrete flatwork (6%) Security Camera - Video Encoder Gazebo, 10' octagon, PLT-wood - refurbish wood Tot lot (B), border recycled plastic	\$1,628 \$1,628 \$ \$2,493 \$1,860 \$1,600 \$2,655
13 15 17 Total \$ Item 3 19 24 25 26 28 31	Bench, metal (50%) Picnic table, metal (50%) Trash can, metal (50%)  Scheduled Replacements  2051 - YEAR 30  Retaining wall, stone, repoint and reset (10%) Tree Replacement (allowance) Security Camera - Video Encoder (for recorders) Security Camera - NEMP Enclosures Security Camera - Recorders Tennis court, color coat (3 coats) Gazebo, 10' octagon, PLT-wood w/standing seam metal	\$6,020 \$5,805 \$2,805 \$14,630 \$793 \$2,000 \$2,085 \$1,710 \$2,505 \$23,022 \$9,800	Total 3    Item   12   23   32   41	Asphalt path, seal coat  Scheduled Replacements  2052 - YEAR 31  Concrete flatwork (6%) Security Camera - Video Encoder Gazebo, 10' octagon, PLT-wood - refurbish wood Tot lot (B), border recycled plastic	\$1,628 \$1,628 \$ \$2,493 \$1,860 \$1,600 \$2,655
Total 5  Item 3 19 24 25 26 28 31	Bench, metal (50%) Picnic table, metal (50%) Trash can, metal (50%)  Scheduled Replacements  2051 - YEAR 30  Retaining wall, stone, repoint and reset (10%) Tree Replacement (allowance) Security Camera - Video Encoder (for recorders) Security Camera - NEMP Enclosures Security Camera - Recorders Tennis court, color coat (3 coats) Gazebo, 10' octagon, PLT-wood w/standing seam metal	\$6,020 \$5,805 \$2,805 \$14,630 \$793 \$2,000 \$2,085 \$1,710 \$2,505 \$23,022 \$9,800	Total 3    Item   12   23   32   41	Asphalt path, seal coat  Scheduled Replacements  2052 - YEAR 31  Concrete flatwork (6%) Security Camera - Video Encoder Gazebo, 10' octagon, PLT-wood - refurbish wood Tot lot (B), border recycled plastic	\$1,628 \$1,628 \$ \$2,493 \$1,860 \$1,600 \$2,655
13 15 17 17 Total \$ Item 3 19 24 25 26 28 31 35	Bench, metal (50%) Picnic table, metal (50%) Trash can, metal (50%)  Scheduled Replacements  2051 - YEAR 30  Retaining wall, stone, repoint and reset (10%) Tree Replacement (allowance) Security Camera - Video Encoder (for recorders) Security Camera - NEMP Enclosures Security Camera - Recorders Tennis court, color coat (3 coats) Gazebo, 10' octagon, PLT-wood w/standing seam metal	\$6,020 \$5,805 \$2,805 \$14,630 \$793 \$2,000 \$2,085 \$1,710 \$2,505 \$23,022 \$9,800	Total \$    Item   12   23   32   41   44   44	Asphalt path, seal coat  Scheduled Replacements  2052 - YEAR 31  Concrete flatwork (6%) Security Camera - Video Encoder Gazebo, 10' octagon, PLT-wood - refurbish wood Tot lot (B), border recycled plastic	\$1,628 \$1,628 \$ \$2,493 \$1,860 \$1,600 \$2,655

Item2053 - YEAR 32\$ Item2054 - YEAR 3310Asphalt path, overlay\$45,5081Entry monument / retain. wall (5), repoint & reset (10%)11Asphalt path, seal coat\$1,62822Security Camera - LPR IP21Security Camera - Bullet IP\$5,250	\$ %) \$2,440 \$6,750
11 Asphalt path, seal coat \$1,628 22 Security Camera - LPR IP	
	\$6,750
21 Security Camera - Bullet IP \$5,250	
Total Scheduled Replacements \$52,386 Total Scheduled Replacements	\$9,190
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Item 2055 - YEAR 34 \$ Item 2056 - YEAR 35	\$
18 Trash can, metal (50%) \$2,805 11 Asphalt path, seal coat	\$1,628
19 Tree Replacement (allowance)	\$2,000
28 Tennis court, color coat (3 coats)	\$23,022
45 Tot lot (B), fence, vinyl 3-rail & post	\$4,435
Total Scheduled Replacements \$2,805 Total Scheduled Replacements	\$31,085
Item 2057 - YEAR 36 \$ Item 2058 - YEAR 37	\$
24 Security Camera - Video Encoder (for recorders) \$2,085   12 Concrete flatwork (6%)	\$2,493
26 Security Camera - Recorders \$2,505 23 Security Camera - Video Encoder	\$1,860
32 Gazebo, 10' octagon, PLT-wood - refurbish wood \$1,600	
	2.22
Total Scheduled Replacements \$6,190 Total Scheduled Replacements	\$4,353
Total Scheduled Replacements  \$6,190  Total Scheduled Replacements  Item 2059 - YEAR 38  \$ Item 2060 - YEAR 39	\$4,353
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# **CONDITION ASSESSMENT**

**General Comments.** Miller Dodson Associates conducted a Level 2 Reserve Study at Hampshire Greens HOA in August 2020. Hampshire Greens HOA is in generally fair condition for a homeowner's association constructed between 1997 and 2003. 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 ITEMS

Stone Veneer Entrance Monuments and Retaining Walls. The community maintains five stone veneer structures that serve as both retaining walls and entrance monuments and one stone veneer retaining wall at the three entrances to the community. The monuments and retaining walls are constructed of columns and walls covered with stone veneer with carved stone signage attached to the roadside face of the monuments. Because the stonework has a very long-life expectancy, we have excluded replacement of these walls. We have, however included funding for the periodic tuckpointing of mortar joints and resetting of loose / displaced stones, as exposure to moisture and weather over an extended period of time will wash lime out of the mortar and weaken the joint. Periodic tuckpointing of these joints and replacement of damaged stone is required to extend the life of the wall. We expect that approximately 10 percent of the surface area will require repair every 10 years. Minor repairs to the stone wall are considered routine maintenance and are not included in the study.

All of the stone wall structures have significant vegetation going on the stone work, we recommend that the vegetation be trimmed a minimum of 12" away from the stonework to provide access for annual inspections and routine repairs, including tuckpointing. The clear space also allows any moisture that has accumulate to evaporate.

• The entrance at New Hampshire Ave. and Bay Hill Lane has two stone veneer structures, with the unit on the right side (entrance side) of the intersection also containing a carved stone signage panel. The entrance monument unit is in fair condition, with several displaced stones on the rear elevation.







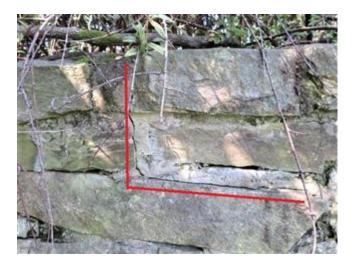


The retaining wall unit on the left side (exit side) of the intersection is in poor condition. We observed an approximately 50% of the retaining walls has sufficient leaning. Leaning occurs when the pressure of the material being held in place by the retaining wall is sufficient to cause the wall to shift away from the vertical. Once a retaining wall starts to lean, it is at risk of failing and must be replaced. The replacement costs presented in this report are for preliminary budgeting purposes only, based upon limited information and do not include any reserve or contingency for inflation or unforeseeable construction requirements. Accurate cost figures for the required remedial work cannot be properly developed until design work (preparation of specifications, proposals and drawings if required) has been completed and approved by the Association. We will revise our replacement cost projections, once the Association provides copies of the written proposals detailing the scope of the work to be conducted.









The Association operates an irrigation system that serves the entrance monument / retaining walls at New Hampshire
Ave. and Bay Hill Lane. The system includes sprinkler heads, electronic controls, and a network of underground
lines. We consider the replacement of individual heads, valves, and sections of the underground piping to be normal
maintenance expenses and have excluded them from the Reserve Analysis.





 The community maintains two stone veneer structures at each of the entrances to the community at Firestone Drive & Norbeck Road and Harbour Town Dr & Ednor Road. The monuments are constructed of columns and walls clad with stone veneer with carved stone signage attached to the roadside face of the monuments. The entrance monuments are in fair condition.









**Entrance Monument Lighting.** The community's monument illumination is provided by ground mounted spot flood lights. The lighting system was not on at the time of our site visit and we understand that the lighting system is in operating condition. We have provided funding for the normal replacement of the lighting fixtures, electric service meter, distribution panel and assumed that the accessories (lens, bulbs, etc.) will be replaced as part of the normal operating budget. Our estimates are based on standard life cycles and on replacement with like items.

The Association maintains has a number of electrical distribution panels that control electric power to the entrance monument lights. These panels separate the electrical power feed into separate circuits while providing protective circuit breakers for each circuit. These panels date to the original construction of the community and have a rated service life of 50 years or more. The overall condition of the distribution panels is good. As the distribution panel's age, obtaining replacement parts can be expected to become more difficult. When parts no longer are available, the Association will have to replace some of the existing panels. Replacement will have to be performed on an incremental basis, panel by panel. Therefore, we have included funding in the Reserve Analysis for distribution panel replacement on an incremental basis.









**Segmental Block Retaining Wall.** The community maintains an inventory of 210 square feet of segmental block retaining wall. 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. The overall condition of these walls is fair.





The industry considers this type of retaining wall to be maintenance-free for 40 years and have an estimated service life of 80-100 years. If this conclusion is accepted, there is no need to reserve for this very significant component. However, if major work must be performed on this wall at some point in time because of settlement, erosion, latent construction defects, etc., the cost will be very high. Therefore, we have included funding for resetting / replacement of 30% of this wall at 40 years, which permits the association to accumulate slowly for this possibility.

**Asphalt Paths.** The Association is responsible for the asphalt paths located in the open space area between Firestone Drive, Calloway Ct. and Cypress Bay Lane. The overall condition of the path's ranges from marginal to poor with multiple defects along the entire length of the pathway. The asphalt paths appear to have been constructed over slightly compacted native soil. As a result, numerous defects have developed throughout the paths. The maintenance of the asphalt paths has been deferred for a number of years.

The replacement costs presented in this report are for preliminary budgeting purposes only, based upon limited information for path replacement with paths constructed with a 2 ' gravel base and 3 ' of asphalt. The replacement costs do not include any reserve or contingency for inflation or unforeseeable construction requirements. Accurate cost figures for the required remedial work cannot be properly developed until design work (preparation of specifications, proposals and drawings if required) has been completed and approved by the Association. We will revise our replacement cost projections, once the Association provides copies of the written proposals detailing the scope of the work to be conducted..

The defects noted include the following:

Cracks. There are multiple locations where open cracks are allowing water to penetrate to the asphalt base and the
bearing soils beneath the pavement. This water will erode the base accelerating the deterioration of the asphalt
pavement. If the cracks have allowed the deterioration of the base materials and the bearing soil, the damaged areas
should be removed and replaced. All other cracks should be cleaned and filled.





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• Raveling and Aging. Asphalt raveling occurs when small crack formations expand and allow water and debris to permeate the surface of the pavement. As the cracks continue to expand over time, small particles of aggregate break apart and eventually compromise the foundation of the pavement. Over time, the broken pieces of aggregate become bigger and bigger until potholes start to form. The pavement loses its smooth surface and begins to appear very open and rough. The severity is rated by the degree of aggregate and binder loss.





Tree Root Damage. There are locations where roots from trees planted near the asphalt surface have pushed up
through the asphalt, causing cracks and heaving. Repair of these areas will require removal of the asphalt and the
tree roots.





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 use of pavement sealants containing coal tar is prohibited in Montgomery County Maryland. The recommended alternatives for coal tar sealants are Asphalt based sealants or Latex sealants. Some of the newer seal coats contain no water, with the liquids being agricultural, plant-based oil and various types of hydrocarbon solvents, usually with some polymers designed to replace lost or oxidized oils and restore flexing and binding properties of the

asphalt pavement. The typical asphalt-based or latex based sealer has a life of approximately 3 years (compared to approximately 5 years for coal tar sealants), depending upon traffic and environmental conditions.

**Concrete Work.** The concrete work includes the community sidewalks at the gazebo and tennis courts areas along Bay Hill Lane. The overall condition of the concrete flatwork is fair with the following defects noted:

- Cracking. There are several sections of the concrete flatwork that have cracked.
- Scaling and flaking are the loss of the surface mortar in concrete, typically caused by water freezing within the
  concrete. Once started, scaling and flaking can be expected to continue to grow as a result of exposure of the
  concrete to freeze-thaw cycles.





• Heaving/Settlement. Sections of the concrete flatwork have heaved or settled relative to their adjacent sections, creating trip hazards. Americans with Disabilities Act (ADA) defines a trip hazard as any vertical change of ¼" or more at a joint or crack in a walkway surface.





The standards we use for recommending replacement are as follows:

- Trip hazard, ½ inch height difference.
- Severe cracking.
- Severe spalling and scale.

Because it is highly unlikely that all of the community's concrete components will fail and require replacement in the period of the study, we have programmed funds for the replacement of 60 percent of the inventory and spread those funds over a 60-year time frame to reflect the incremental nature of this work. This approach assumes a failure rate of one percent per year.

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**Sitting Areas.** The Association maintains sitting and picnic areas along the open space asphalt paths and at the two tot lot areas. The areas include metal benches, metal picnic tables and trash containers. The benches, picnic tables and trash containers are in generally fair condition. We have provided an estimate of the approximate replacement cost based on our experience with other communities of similar size and on our inspection of the visible components while on site. We assumed a life expectancy of 20 years for the benches and picnic tables and 10 years for the trash containers.













**Security Camera System.** The Association is responsible for the maintenance and operation of the street security camera systems. Cameras are located at the intersections of Bay Hill Lane and Harbour Town Drive; on Firestone Drive, approximately 200 feet north of the intersection of Norbeck Road and on Harbour Town Drive, approximately 125 feet southwest of the intersection of Ednor Road. It is our understanding that the original security camera system was installed in 2014 with License Plate Capture (LPR) cameras and video encoders added in 2015. The Association is currently

replacing the off-site recording system with on-site recorders and encoders, mounted in the NEMP enclosures installed adjacent to the electric service and meter panels.









- The camera system at Bay Hill Lane and Harbour Town Drive consists of three outdoor bullet cameras and one LPR camera mounted atop an approximate 20-foot support pole with the power enclosure also mounted on the top of the support pole.
- The camera systems on Firestone Drive and Harbour Town Drive consists of two outdoor bullet cameras and one LPR camera mounted atop an approximate 20-foot support pole with the power enclosure also mounted at the top of the support pole.

The introduction of IP technology, and the widespread adoption of IP-based cameras, has transformed the camera landscape. Because the technology is only 20 years old, there is not a significant amount of data to establish the average lifespan of these devices. As a general rule, a new IP camera today should last between 6 to 10 years. After that time, it would be wise to start to invest in newer camera technology.

The replacement costs presented in this report are for preliminary budgeting purposes only, based on the ASG 2015 proposal for the License Plate Capture (LPR) cameras and video recorders and on our evaluation of the visible components and do not include any reserve or contingency for inflation or unforeseeable construction requirements. Accurate cost figures for the replacement cost cannot be properly developed until specifications and proposals has been completed and approved by the Association. We will revise our replacement cost projections, once the Association provides copies of the written proposals detailing the scope of the work to be conducted.

#### **RECREATION ITEMS**

Tennis Courts. The community maintains a single tennis court multiple tennis courts. The overall condition of these courts is marginal, with open cracks and indications of previous repairs throughout both courts. The fencing is in generally fair to marginal condition.













Listed below are the major components of the tennis court facilities:

- Asphalt Pavement (base layer). We have assumed a service life of 20 years for the asphalt base layer.
- Color Coat (surface layer). Annual cleaning is recommended to maintain the surface of the court. The base of a tennis court is subject to cracking and low spots known as "birdbaths" that can occur from weather and earth movement. A program to address cracks as they appear will help to prolong the useful life of the color coat. We have assumed a service life of five years for the color coat.
- Fencing. We have assumed that the fencing will be replaced when the asphalt pavement is replaced. Posts and fencing should be inspected, repaired, and painted as needed to prolong their economic life. Periodic inspection of

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the posts, gates, hinges, and latches is also recommended, and it is important that posts and footings be protected to prevent soil erosion. In addition, care should be taken so that damage from string trimmers is minimized.

• Net Posts. We have assumed that the new posts will be replaced when the asphalt pavement is replaced.

**Gazebo**. The Association maintains a gazebo of wood construction. The gazebo has a concrete floor, stained wood support and railing system, stained ceiling, 5 benches and standing seam metal roofing. The gazebo is in generally fair condition; however the wood components are weathered and one section of the built in seating is missing. The rate of deterioration of the wood components of the gazebo will vary with the level of maintenance performed on those components as well as the exposure of the gazebos to the elements. Gazebos of this type can be expected to have a service life of 40 years when properly maintained.









**Tot Lots.** The community maintains 2 tot lots. Tot Lot A is located, between the tennis courts and the gazebo, on Bay Hill Lane and Tot Lot B is located in an open space area on Harbour Town Drive across from residence at 16829 Harbour Town Dr.

• Tot Lot A. The Association reported plans to remove the tot lot in 2021. Our research includes contact with Miracle Recreation (manufacture of tot lot equipment) who forwarded us to Michael Slifer of Metro Recreation, their local representative. The estimate of removal cost used in this report is based on our conversation with Mr. Slifer. We have included allowance for the installation of 250 sf of concrete sidewalk and re-landscaping of the area. Based on conversation with Ms. Wildman, the bench and trash container located in this area will remain.





• Tot Lot B. The tot lot includes a large play structures, synthetic borders, and a wood mulch safety surface. The tot lot is in generally fair condition with minor wear and a few loose connections. The wood chip surface is displaced or missing or does not appear to be adequate. The replacement cost used in this study are based on discussions with Mr. Slifer, and includes removal and installation of the play equipment based on the cost for the current equivalent equipment, expansion of the use zone (current use zones around the equipment do not comply with current safety standards), new borders and new wood safety mulch. Special consideration should be given to providing accessible surfaces in a play area that meets the ASTM Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment, ASTM F1951. Equipment selection and location along with the type of protective surfacing are key components to ensuring the opportunity for children with disabilities to play on the playground.

Note: If the Association selects a different play structure, we will adjust our figures to conform to proposal that the Association obtains if information is disclosed to us and/or made available for our use.





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.mdareserves.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 and add 30% for the disposal of the old equipment and installation of new equipment.

**Hampshire Greens HOA** 

October 27, 2020

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

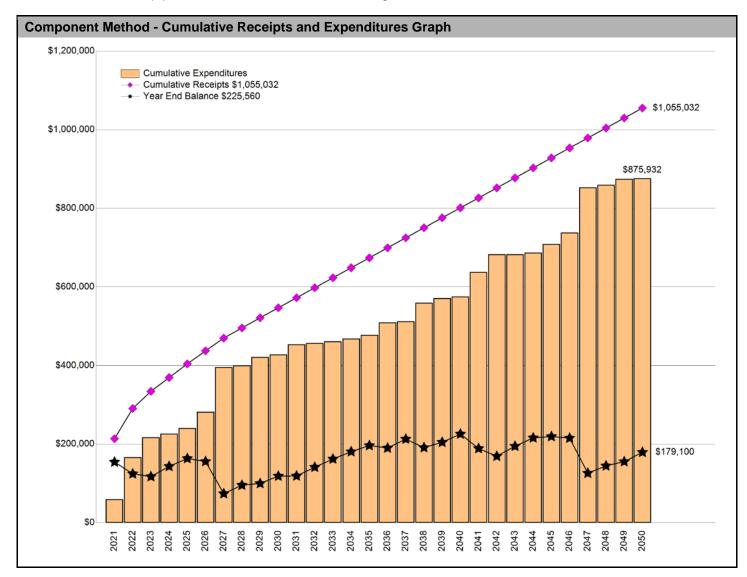
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# **COMPONENT METHOD**

\$110,639

COMPONENT METHOD RECOMMENDED ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2021.\$32.24 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 45 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 CM.2.



## COMPONENT METHOD (CONT.)

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 45 Projected Replacements.
The total, \$323,033, is the Current Funding Objective.

For an example, consider a 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  $$100 ($1,000 \div 10 \text{ years})$$  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 (\$103,094) by the Current Funding Objective (\$323,033). At Hampshire Greens HOA the Funding Percentage is 31.9%
- Allocation of the Beginning Balance. The Beginning Balance is divided among the 45 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 31.9 percent funded, there is \$255 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 \$110,639, the Component Method Recommended Annual Funding of Replacement Reserves in the Study Year (2021).

In our fence example, the \$255 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 \$372. Next year, the deposit remains \$372, 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.

omponent Method Data - Years 1 through 30												
Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Beginning Balance	\$103,094											
Recommended Annual Funding	\$110,639	\$76,764	\$43,623	\$35,178	\$34,655	\$33,312	\$32,306	\$25,912	\$25,912	\$25,429		
Expenditures	\$59,431	\$106,712	\$50,758	\$9,190	\$14,630	\$40,885	\$114,130	\$4,353	\$21,508	\$6,750		
Year End Balance	\$154,302	\$124,354	\$117,219	\$143,207	\$163,232	\$155,659	\$73,835	\$95,394	\$99,799	\$118,478		
Cumulative Expenditures	\$59,431	\$166,144	\$216,902	\$226,092	\$240,722	\$281,606	\$395,736	\$400,089	\$421,597	\$428,347		
Cumulative Receipts	\$213,733	\$290,498	\$334,120	\$369,299	\$403,954	\$437,266	\$469,572	\$495,484	\$521,396	\$546,825		
Year	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040		
Recommended Annual Funding	\$25,429	\$25,429	\$25,429	\$25,429	\$25,429	\$25,429	\$25,429	\$25,429	\$25,429	\$25,377		
Expenditures	\$25,022	\$3,228	\$4,590	\$6,793	\$9,683	\$31,772	\$2,645	\$47,136	\$11,940	\$4,353		
Year End Balance	\$118,886	\$141,088	\$161,927	\$180,564	\$196,311	\$189,968	\$212,752	\$191,046	\$204,536	\$225,560		
Cumulative Expenditures	\$453,369	\$456,596	\$461,186	\$467,979	\$477,662	\$509,434	\$512,079	\$559,214	\$571,154	\$575,507		
Cumulative Receipts	\$572,254	\$597,684	\$623,113	\$648,543	\$673,972	\$699,402	\$724,831	\$750,260	\$775,690	\$801,067		
Year	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050		
Recommended Annual Funding	\$25,377	\$25,405	\$25,405	\$25,405	\$25,405	\$25,393	\$25,393	\$25,393	\$25,393	\$25,393		
Expenditures	\$62,234	\$44,994		\$4,068	\$22,040	\$29,375	\$114,708	\$6,750	\$14,630	\$1,628		
Year End Balance	\$188,704	\$169,115	\$194,520	\$215,858	\$219,223	\$215,241	\$125,927	\$144,571	\$155,334	\$179,100		
Cumulative Expenditures	\$637,740	\$682,734	\$682,734	\$686,802	\$708,842	\$738,217	\$852,924	\$859,674	\$874,304	\$875,932		
Cumulative Receipts	\$826,444	\$851,850	\$877,255	\$902,660	\$928,065	\$953,458	\$978,852	\$1,004,245	\$1,029,638	\$1,055,032		

2021 - COMPONENT METHOD CATEGORY FUNDING - TARLE CM1

October 27, 2020

### 2021 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 45 Projected Replacements included in the Hampshire Greens HOA Replacement Reserve Inventory has been assigned to one of the 2 categories listed in TABLE CM1 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- A Beginning Balance of \$103,094 as of the first day of the Study Year, January 1, 2021.
- Total reserve funding (including the Beginning Balance) of \$213,733 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 2021 being accomplished in 2021 at a cost of \$59,431.

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 CM1								
ATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2021 BEGINNING BALANCE	2021 RESERVE FUNDING	2021 PROJECTED REPLACEMENTS	END OF Y BALA			
ITE COMPONENTS	3 to 80 years	0 to 58 years	\$174,273	\$41,746	\$38,736	\$2,000	\$78,7			
ECURITY CAMERA SYSTEM	6 to 30 years	1 to 24 years	\$22,980	\$3,384	\$4,411		\$7,7			
ECREATION COMPONENTS	5 to 60 years	0 to 6 years	\$216,956	\$57,917	\$67,492	\$57,431	\$67,9			

2022 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM2

October 27, 2020

### 2022 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 45 Projected Replacements included in the Hampshire Greens HOA Replacement Reserve Inventory has been assigned to one of the 2 categories listed in TABLE CM2 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$154,302 on January 1, 2022.
- Total reserve funding (including the Beginning Balance) of \$290,498 from 2021 to 2022.
- 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 2022 being accomplished in 2022 at a cost of \$106,712.

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.

		2022 - 601	VIPONEINI IVII	ETHOD CAT	EGUKTFUI	ADING - TAE	DLE CIVIZ
ATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2022 BEGINNING BALANCE	2022 RESERVE FUNDING	2022 PROJECTED REPLACEMENTS	20 END OF YE BALAN
ITE COMPONENTS	3 to 80 years	0 to 57 years	\$174,273	\$78,702	\$37,774	\$60,733	\$55,74
ECURITY CAMERA SYSTEM	6 to 30 years	0 to 23 years	\$22,980	\$7,795	\$4,411	\$1,860	\$10,34
ECREATION COMPONENTS	5 to 60 years	0 to 59 years	\$216,956	\$67,979	\$34,580	\$44,120	\$58,43

2023 - COMPONENT METHOD CATEGORY FUNDING - TARLE CM3

October 27, 2020

### 2023 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 45 Projected Replacements included in the Hampshire Greens HOA Replacement Reserve Inventory has been assigned to one of the 2 categories listed in TABLE CM3 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$124,354 on January 1, 2023.
- Total reserve funding (including the Beginning Balance) of \$334,120 from 2022 to 2023.
- 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 2023 being accomplished in 2023 at a cost of \$50,758.

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.

		2023 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM3							
ATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2023 BEGINNING BALANCE	2023 RESERVE FUNDING	2023 PROJECTED REPLACEMENTS	END OF Y BALA		
ITE COMPONENTS	3 to 80 years	0 to 79 years	\$174,273	\$55,743	\$18,056	\$45,508	\$28,2		
ECURITY CAMERA SYSTEM	6 to 30 years	0 to 22 years	\$22,980	\$10,346	\$4,038	\$5,250	\$9,1		
ECREATION COMPONENTS	5 to 60 years	3 to 59 years	\$216,956	\$58,439	\$21,529		\$79,9		

October 27, 2020

TABLE CM4 below details the allocation of the \$103,094 Beginning Balance, as reported by the Association and the \$231,026 of Replacement Reserve Funding calculated by the Component Method from 2021 to 2023, to the 45 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 CF.1. The accuracy of the allocations is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$103,094 on January 1, 2021.
- Replacement Reserves on Deposit totaling \$154,302 on January 1, 2022.
- Replacement Reserves on Deposit totaling \$124,354 on January 1, 2023.
- Total Replacement Reserve funding (including the Beginning Balance) of \$334,120 from 2021 to 2023.
- 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 2021 to 2023 being accomplished as scheduled in the Replacement Reserve Inventory at a cost of \$216,902.

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.

			COMPO	NENT M	ETHOD -	- THREE-	YEAR F	REPLACE	MENT	FUNDING	- TABLE	CM4
Item	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2021 Reserve Funding	2021 Projected Replacements	2021 End of Year	2022 Reserve Funding	2022 Projected Replacements	2022 End of Year Balance	2023 Reserve Fundina	2023 Projected Replacements	2023 End of Yea Balance
#	SITE ITEMS - SITE	Costs	Baiance	Fullding	Replacements	Balarice	runding	Replacements	Dalance	runung	Replacements	Balance
1	Entry monument / retain. wall (5),	2,440	545	474		1,019	474		1,492	474		1,966
2	Retaining wall, stone, replace	58,240	18,346	19,947		38,293	19,947	(58,240)		728		728
3	Retaining wall, stone, repoint and	793	(253)	50			50		50	50		100
4	Retaining wall, segmental block	12,327	1,081	191		1,272	191		1,463	191		1,653
5	Retaining wall, segmental block	2,835	497	123		620	123		743	123		866
6	Electrical service & meter -	6,750	502	133		635	133		768	133		901
7	Electrical distribution panels -	4,560	339	90		429	90		519	90		609
8	Lighting, LED flood - Entrance	380	24	17		41	17		58	17		75
9	Lighting, ground mounted flood -	5,060	1,130	561		1,691	561		2,253	561		2,814
10	Asphalt path, overlay	45,508	12,581	10,976		23,557	10,976		34,532	10,976	(45,508)	
11	Asphalt path, seal coat	1,628	(346)	329			329		329	329		658
12	Concrete flatwork (6%)	2,493	663	915		1,578	915	(2,493)		415		415
13	Bench, metal (50%)	6,020	1,152	541		1,693	541		2,234	541		2,775
14	Bench, metal (50%)	6,020	1,536	897		2,433	897		3,330	897		4,227
15	Picnic table, metal (50%)	5,805	1,111	522		1,633	522		2,154	522		2,676
16	Picnic table, metal (50%)	5,805	1,481	865		2,346	865		3,211	865		4,076
17	Trash can, metal (50%)	2,805	179	292		471	292		763	292		1,054
18	Trash can, metal (50%)	2,805	537	454		991	454		1,444	454		1,898
19	Tree Replacement (allowance)	2,000	638	1,362	(2,000)		400		400	400		800
	SITE ITEMS - SECURITY											
20	Security Camera Pole	2,820	180	106		286	106		391	106		497
21	Security Camera - Bullet IP	5,250	1,117	1,378		2,494	1,378		3,872	1,378	(5,250)	
22	Security Camera - LPR IP	6,750	1,077	1,418		2,495	1,418		3,913	1,418		5,332
23	Security Camera - Video Encoder	1,860	494	683		1,177	683	(1,860)		310		310
24	Security Camera - Video Encoder	2,085	111	282		393	282		675	282		957
25	Security Camera - NEMP	1,710	273	205		478	205		683	205		889
26	Security Camera - Recorders	2,505	133	339		472	339		811	339		1,150
	RECREATION ITEMS -											
27	Tennis court, asphalt overlay	84,414	18,850	9,366		28,216	9,366		37,582	9,366		46,949
28	Tennis court, color coat (3 coats)	23,022	7,344	15,678	(23,022)		4,604		4,604	4,604		9,209
29	Tennis court, post & footings	2,560	572	284		856	284		1,140	284		1,424
30	Tennis court, fence, 10' chain link	14,196	3,170	1,575		4,745	1,575		6,320	1,575		7,895
31	Gazebo, 10' octagon, PLT-wood	9,800	2,501	1,217		3,717	1,217		4,934	1,217		6,150
32	Gazebo, 10' octagon, PLT-wood -	1,600	408	596		1,004	596	(1,600)		320		320
33	Tot Lot (A) - MP structure, Eagle #	26,260	8,377	17,883	(26,260)		1,313		1,313	1,313		2,626
34	Tot Lot (A) -CC Rock Wall	2,076	662	1,414	(2,076)		104		104	104		208
35	Tot Lot (A) - border recycled plastic	2,880	919	1,961	(2,880)		96		96	96		192
36	Tot Lot (A) - surfacing, wood mulch	2,368	755	1,613	(2,368)		39		39	39		79
37	Tot Lot (A) - Bench #SF333-6PERF	825	263	562	(825)		41		41	41		83
38	Tot lot (B), MP structure, Eagle #	30,890	9,361	10,764	. ,	20,126	10,764	(30,890)		1,545		1,545
39	Tot lot (B),Mini Spinner	1,569	475	547		1,022	547	(1,569)		78		78
40	Tot lot (B), 4-seat bouncer	2,535	768	883		1,652	883	(2,535)		127		127

		COMP	ONENT M	ETHOD	- THRE	E-YEAR	REPLAC	EMENT	FUNDING	- TAB	LE CM4 (	cont.)
Item	Description of Projected	Estimated Replacement	Allocation of Beginning	2021 Reserve	2021 Projected	2021 End of Year	2022 Reserve	2022 Projected	2022 End of Year	2023 Reserve	2023 Projected	202 End of Yea Balanc
41	Replacement Tot lot (B), border recycled plastic	Costs 2,655	Balance 819	Funding 918	Replacements	Balance 1,737	Funding 918	Replacements (2,655)	Balance	Funding 88	Replacements	Balanc 88
42	Tot lot (B) surfacing, wood mulch	2,176	683	747		1,429	747	(2,176)		36		36
43 44	Tot lot (B) Bench # SF333-6PERF Tot lot (B) Trash Can # SFTR-	1,650 1,045	500 311	575 367		1,075 678	575 367	(1,650) (1,045)		83 70		83 70
	Tot lot (B), fence, vinyl 3-rail & post	4,435	1,179	543		1,722	543	(1,043)	2,264	543		2,807

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#### 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. The Community Associations Institute (CAI), a national trade association, estimates in 2018 that there were more than 347,000 communities with over 73.5 million residents.

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 Normal Economic Life (NEL).** 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 Remaining Economic Life (REL).** 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 Balance.** Shown on the Summary Sheet A4, this amount is used in the Cash Flow Method only. Normally derived using the average annual expenditure over the study period, this is the minimum amount held in reserves for every year in the study period.

**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.

Overview, Standard Terms, and Definitions

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 or If linear foot
sf square foot
pr pair
cy cubic yard
sf square foot

### **Video Answers to Frequently Asked Questions**

What is a Reserve Study?
Who are we?



https://youtu.be/m4BcOE6q3Aw

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



https://youtu.be/pYSMZO13VjQ

What is in a Reserve Study and what's out? Improvement/Component, what's the difference?



https://youtu.be/ZfBoAEhtf3E

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



https://youtu.be/40SodajTW1g

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



https://youtu.be/Qx8WHB9Cgnc

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



https://youtu.be/1J2h7FIU3qw

### **Video Answers to Frequently Asked Questions**

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



https://youtu.be/aARD1B1Oa3o

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



https://youtu.be/qCeVJhFf9ag

How are interest and inflation addressed? Inflation, what should we consider?



https://youtu.be/W8CDLwRIv68

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



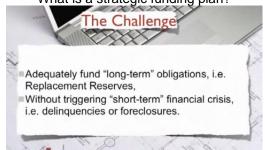
https://youtu.be/diZfM1IyJYU

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



https://youtu.be/SePdwVDvHWI

A community needs more help, where do we go?
What is a strategic funding plan?



https://youtu.be/hlxV9X1tlcA