

SOLUTIONS PROPERTY MANAGEMENT

Cathy McCallister

302.581.9060 solutionspropmgt@gmail.com

**Consultant:** 

**PO Box 594** 

# millerdodson

Bethany Beach, DE 19930

**Capital Reserve Consultants** 

2661 Riva Road, Suite 1042 Annapolis, MD 21401 410.268.0479 800.850.2835

MillerDodson.com

# INTENTIONALLY LEFT BLANK

# REPLACEMENT RESERVE REPORT

# MIDDLESEX BEACH ASSOCIATION

BETHANY BEACH, DELAWARE January 15, 2024 Revised April 08, 2024



**Description.** Middlesex Beach Association is a Homeowner's Association located in Bethany Beach, Delaware. The community consists of 245 Single-Family Homes (built primarily in the 1960s) as well as businesses within the Association that result in 258 contributing units. The survey examined the common elements of the property, including:

- Signage and Asphalt Roadways
- Paver Sections (of Beach Access Paths)
- Community Fencing and Pedestrian Barrier
- Electric and Gas Polaris vehicles
- Golf Cart
- Guardhouse, including Bathroom and Shower Stall
- Maintenance Shed

#### **EXECUTIVE SUMMARY**

This Reserve Study has been prepared for the Middlesex Beach Association for the Fiscal Year 2024 covering the period from April 1, 2024 to March 31, 2025. The Replacement Reserves Starting Balance as of April 1, 2024 is reported to be \$580,000. The reported Current Annual Funding for Reserves is \$142,000. The Recommended Annual Reserve Funding level for 2024 is \$110,559.

The starting balance for 2024 is approximately \$160,000 higher than projected in the prior study. The higher Starting Balance generally reduces the amount of the Recommended Annual Reserve Funding. Therefore, the Association is currently funding the Reserves at a higher funding level than is calculated in this Reserve Study. However, due to the high rate of inflation in today's construction industry and its effect on increased Replacement costs, we recommend that the Association continue to fund at its current higher funding level. This can be adjusted in the future when inflation rates stabilize.

#### Section A

## Replacement Reserve Analysis

Financial Analysis - A1

General Information - A2

Current Funding - A3

Cash Flow Method Funding - A4

Inflation Adjusted Funding - A5

Comments - A6

#### Section B

# Replacement Reserve Inventory

Replacement Reserve Inventory

General information - B1
Replacement Reserve Inventory
Comments - B2
Schedule of Projected Replacements
and Exclusions - B3

#### Section C

# Projected Annual Replacements

Projected Annual Replacements General Information - C1 Calendar of Projected Annual Replacements - C2

#### Section D

#### **Condition Assessment**

#### **Appendix**

Overview, Standard Terms, and Definitions

Video Answers to Frequently Asked Questions MillerDodson welcomes the opportunity to answer questions or to discuss this Reserve Study in more detail should the Board so desire.

**Current Funding.** The Starting Balance and Current Annual Reserve Funding figures have been supplied by the managing agent and/or Board of Directors. 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.

**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 Whayland Consulting Group, December 2021. 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.

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

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

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

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

- The Request for Proposal submitted and executed by the Association.
- Miller+Dodson performed a visual evaluation on January 15, 2024 to determine the 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 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.

**Acknowledgment.** Miller+Dodson Associates would like to acknowledge the assistance and input of David Wiecking, Bob Wood, who provided very helpful insight into the current operations of the property.

**Analyst's Credentials.** Kurt Froelich holds a Bachelor of Arts Degree from Columbia International University. He has over 30 years of experience in residential construction, contracting and home inspections. Kurt has performed over 7400 full home inspections. He is fluent in German and has lived overseas for a combined 24 years; in Palau, the Philippines and Austria. Kurt and his wife reside in Richmond, VA, and have 3 children and 4 grandchildren. He is a Reserve Analyst for Miller-Dodson Associates.

Respectfully Submitted,



Kurt Froelich
Kurt Froelich

# INTENTIONALLY LEFT BLANK

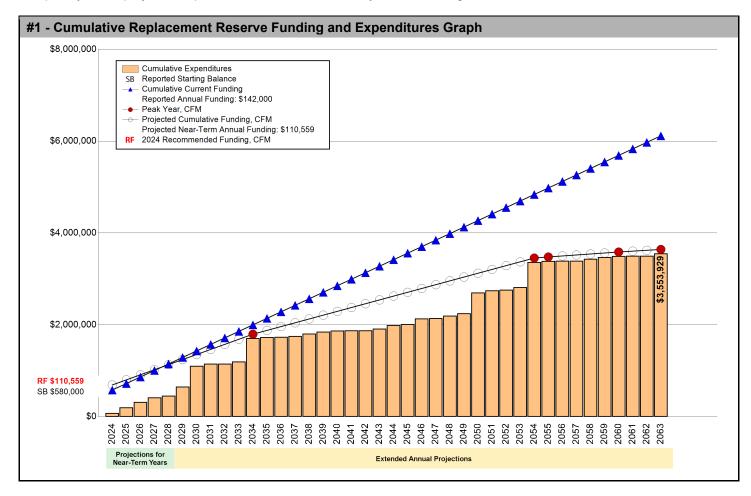
# **SECTION A - FINANCIAL ANALYSIS**

The Middlesex Beach Association Replacement Reserve Analysis uses the Cash Flow Method (CFM) to calculate Replacement Reserve funding for the periodic replacement of the 29 Projected Replacements identified in the Replacement Reserve Inventory.

\$110,559 RECOMMENDED REPLACEMENT RESERVE FUNDING FOR THE STUDY YEAR, 2024 \$35.71 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.

Middlesex Beach Association reports a Starting Balance of \$580,000 and Annual Funding totaling \$142,000, which adequately funds projected replacements for the near-term years. See Page A.3 for a more detailed evaluation.



The starting balance for 2024 is approximately \$160,000 higher than projected in the prior study. The higher Starting Balance generally reduces the amount of the Recommended Annual Reserve Funding. Therefore, the Association is currently funding the Reserves at a higher funding level than is calculated in this Reserve Study. However, due to the high rate of inflation in today's construction industry and its effect on increased Replacement costs, we recommend that the Association continue to fund at its current higher funding level. This can be adjusted in the future when inflation rates stabilize.

April 08, 2024

## REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION

The Middlesex Beach Association 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.

# 2024 STUDY YEAR

The Association reports that their accounting year begins on April 1, and the Study Year, the first year evaluated by the Replacement Reserve Analysis, begins on April 1, 2024.

## 40 Years | STUDY PERIOD

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

# \$580,000 STARTING BALANCE

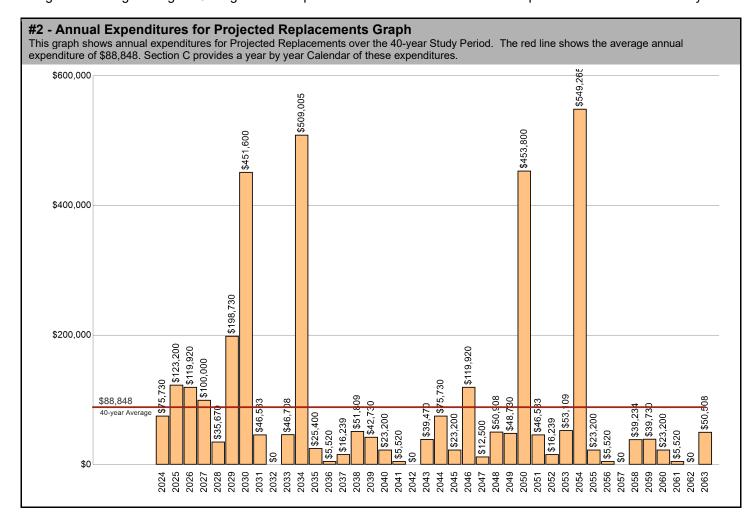
The Association reports Replacement Reserves on Deposit totaling \$580,000 at the start of the Study Year.

# Level Two | LEVEL OF SERVICE

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

# \$3,553,929 | REPLACEMENT RESERVE INVENTORY - PROJECTED REPLACEMENTS

The Middlesex Beach Association Replacement Reserve Inventory identifies 29 items that will require periodic replacement, that are to be funded from Replacement Reserves. We estimate the cost of these replacements will be \$3,553,929 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.



April 08, 2024

#### **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 \$3,553,929 of Projected Expenditures over the 40-year Study Period and the impact of the Association continuing to fund Replacement Reserves at the current level are detailed in Table 3.

#3 - Table of Annι	ıal Expend	ditures an	d Curren	t Funding	Data - Ye	ars 1 thro	ough 40			
Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Starting Balance	\$580,000									
Projected Replacements	(\$75,730)	(\$123,200)	(\$119,920)	(\$100,000)	(\$35,670)	(\$198,730)	(\$451,600)	(\$46,583)		(\$46,708)
Annual Deposit	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000
End of Year Balance	\$646,270	\$665,070	\$687,150	\$729,150	\$835,480	\$778,750	\$469,150	\$564,568	\$706,568	\$801,860
Cumulative Expenditures	(\$75,730)	(\$198,930)	(\$318,850)	(\$418,850)	(\$454,520)	(\$653,250)	(\$1,104,850)	(\$1,151,433)	(\$1,151,433)	(\$1,198,141)
Cumulative Receipts	\$722,000	\$864,000	\$1,006,000	\$1,148,000	\$1,290,000	\$1,432,000	\$1,574,000	\$1,716,000	\$1,858,000	\$2,000,000
Year	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Projected Replacements	(\$509,005)	(\$25,400)	(\$5,520)	(\$16,239)	(\$51,809)	(\$42,730)	(\$23,200)	(\$5,520)		(\$39,470)
Annual Deposit	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000
End of Year Balance	\$434,855	\$551,455	\$687,935	\$813,696	\$903,887	\$1,003,157	\$1,121,957	\$1,258,437	\$1,400,437	\$1,502,967
Cumulative Expenditures	(\$1,707,146)	(\$1,732,546)	(\$1,738,066)	(\$1,754,305)	(\$1,806,114)	(\$1,848,844)	(\$1,872,044)	(\$1,877,564)	(\$1,877,564)	(\$1,917,034)
Cumulative Receipts	\$2,142,000	\$2,284,000	\$2,426,000	\$2,568,000	\$2,710,000	\$2,852,000	\$2,994,000	\$3,136,000	\$3,278,000	\$3,420,000
Year	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Projected Replacements	(\$75,730)	(\$23,200)	(\$119,920)	(\$12,500)	(\$50,908)	(\$48,730)	(\$453,800)	(\$46,583)	(\$16,239)	(\$53,109)
Annual Deposit	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000
End of Year Balance	\$1,569,237	\$1,688,037	\$1,710,117	\$1,839,617	\$1,930,709	\$2,023,979	\$1,712,179	\$1,807,596	\$1,933,357	\$2,022,248
Cumulative Expenditures	(\$1,992,764)	(\$2,015,964)	(\$2,135,884)	(\$2,148,384)	(\$2,199,292)	(\$2,248,022)	(\$2,701,822)	(\$2,748,404)	(\$2,764,643)	(\$2,817,752)
Cumulative Receipts	\$3,562,000	\$3,704,000	\$3,846,000	\$3,988,000	\$4,130,000	\$4,272,000	\$4,414,000	\$4,556,000	\$4,698,000	\$4,840,000
Year	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063
Projected Replacements	(\$549,265)	(\$23,200)	(\$5,520)		(\$39,234)	(\$39,730)	(\$23,200)	(\$5,520)		(\$50,508)
Annual Deposit	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000	\$142,000
End of Year Balance	\$1,614,983	\$1,733,783	\$1,870,263	\$2,012,263	\$2,115,029	\$2,217,299	\$2,336,099	\$2,472,579	\$2,614,579	\$2,706,071
Cumulative Expenditures	(\$3,367,017)	(\$3,390,217)	(\$3,395,737)	(\$3,395,737)	(\$3,434,971)	(\$3,474,701)	(\$3,497,901)	(\$3,503,421)	(\$3,503,421)	(\$3,553,929)
Cumulative Receipts	\$4,982,000	\$5,124,000	\$5,266,000	\$5,408,000	\$5,550,000	\$5,692,000	\$5,834,000	\$5,976,000	\$6,118,000	\$6,260,000

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

The evaluation of Current Funding (Starting Balance of \$580,000 & annual funding of \$142,000), is done in today's dollars with no adjustments for inflation or interest earned on Replacement Reserves. The evaluation assumes Replacement Reserves will only be used for the 29 Projected Replacements identified in the Replacement Reserve Inventory and that the Association will continue Annual Funding of \$142,000 throughout the 40-year Study Period.

Annual Funding of \$142,000 is approximately 128 percent of the \$110,559 recommended Annual Funding calculated by the Cash Flow Method for 2024, the Study Year.

See the Executive Summary for the Current Funding Statement.

#### April 08, 2024

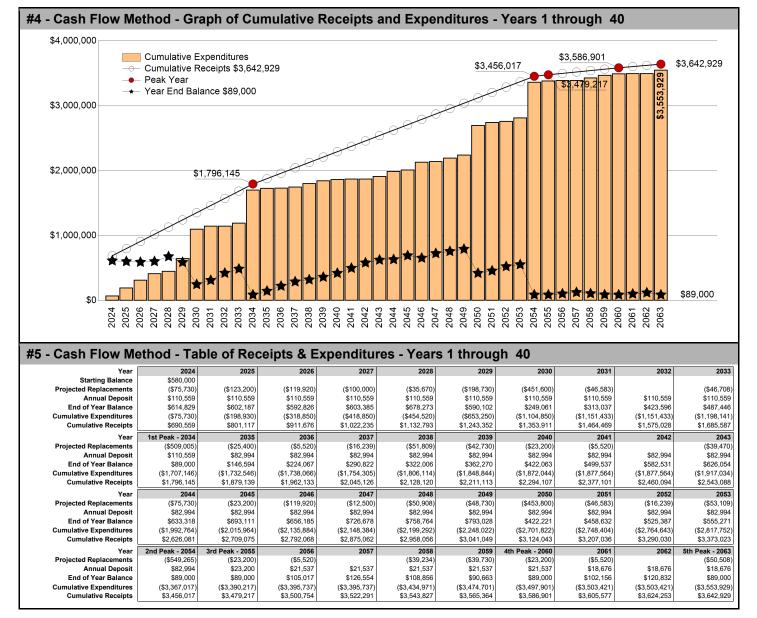
# **CASH FLOW METHOD FUNDING**

## \$110,559 RECOMMENDED REPLACEMENT RESERVE FUNDING FOR 2024

\$35.71 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 2034 with Replacement Reserves on Deposit dropping to the Minimum Balance after the completion of \$1,707,146 of replacements from 2024 to 2034. Recommended funding is projected to decline from \$110,559 in 2034 to \$82,994 in 2035. Peak Years are identified in Chart 4 and Table 5.
- Threshold (Minimum Balance). The calculations assume a Minimum Balance of \$89,000 will always be held in reserve, which is calculated by rounding the 12-month 40-year average annual expenditure of \$88,848 as shown on Graph #2.
- Cash Flow Method Study Period. Cash Flow Method calculates funding for \$3,553,929 of expenditures over the 40-year Study Period. It does not include funding for any projects beyond 2063 and in 2063, 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.

#### \$110,559 2024 - CASH FLOW METHOD RECOMMENDED FUNDING

The 2024 Study Year calculations have been made using current replacement costs \$117,192 2025 - 6% INFLATION ADJUSTED FUNDING

A new analysis calculates the 2025 funding based on three assumptions:

- Starting Balance totaling \$614,829 on April 1, 2025.
- 2025 Non inflation replacement costs listed in Section C, \$123,200, will be replaced at approximately \$130,592, 6% inflation increase to 2024 costs.
- The \$117,192 inflation-adjusted funding in 2025 is a 6% increase over the non-inflation-adjusted funding of \$110,559.

# **\$124,224 2026 - 6% INFLATION ADJUSTED FUNDING**

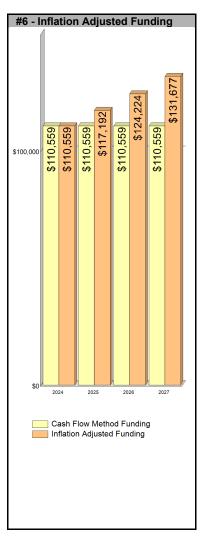
A new analysis calculates the 2026 funding based on three assumptions:

- Starting balance of approximately \$601,429 = 2025 Starting Balance \$614,829, plus Inflation Adjusted Funding \$117,192 for 2025, minus \$130,592 2025 Inflation Adjusted Cost.
- 2026 Non inflation replacement costs listed in Section C, \$119,920, will be replaced at approximately \$134,310, 12% inflation increase to 2025 costs.
- The \$124,224 inflation-adjusted funding in 2026 is a 6% increase over the non-inflation-adjusted funding of \$117,192 for 2025.

## \$131,677 2027 - 6% INFLATION ADJUSTED FUNDING

A new analysis calculates the 2027 funding based on three assumptions:

- Starting balance of approximately \$591,342 = 2026 Starting Balance \$601,429, plus Inflation Adjusted Funding \$124,224 for 2026, minus \$134,310 2026 Inflation Adjusted Cost.
- 2027 Non inflation replacement costs listed in Section C, \$100,000, will be replaced at approximately \$118,000, 18% inflation increase to 2026 costs.
- The \$131,677 inflation-adjusted funding in 2027 is a 6% increase over the non-inflation-adjusted funding of \$124,224 for 2026.



#### Year Four 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 2025, 2026 and 2027 inflation-adjusted funding calculations above, the 6.00 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 2024, based on a 1.00 percent interest rate, we estimate the Association may earn \$5,974 on an average balance of \$597,414, \$6,081 on an average balance of \$608,129 in 2025, and \$5,964 on \$596,386 in 2026. The Association may elect to attribute 100 percent of the earned interest to Reserves, resulting in a reduction in the 2024 funding from \$110,559 to \$104,585 (a 5.40 percent reduction), \$117,192 to \$111,111 in 2025 (a 5.18 percent reduction), and \$124,224 to \$118,260 in 2026 (a 4.80 percent reduction).

## INTENTIONALLY LEFT BLANK

# SECTION B - REPLACEMENT RESERVE INVENTORY

PROJECTED REPLACEMENTS. Middlesex Beach Association - Replacement Reserve Inventory identifies 29 items
that are Projected Replacements and the periodic replacements of these items are scheduled for funding from
Replacement Reserves. The Projected Replacements have an estimated one-time replacement cost of
\$1,752,232. Cumulative Replacements totaling \$3,553,929 are scheduled in the Replacement Reserve Inventory
over the 40-year Study Period. Cumulative Replacements include those components that are replaced more than
once during the period of the study.

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

- **TAX CODE.** The United States Tax Code grants 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.
- **EXCLUDED ITEMS.** Some of the items contained 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:

**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 29 items included in the Middlesex Beach Association 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 Two Update, as defined by the National Reserve Study Standards, established in 1998 by the 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 Whayland Consulting Group, December 2021. 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 29 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.

- **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.
- ACCURACY OF THE ANALYSIS. The accuracy of the Replacement Reserve Analysis is dependent upon expenditures from Replacement Reserves being made ONLY for the 29 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.

April 08, 2024

	ITEMS ECTED REPLACEMENTS			·			Economic Life (yrs) Economic Life (yrs)
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
1	Community signs, painted metal	ea	2	\$1,900.00	20	19	\$3,800
2	Community sign, carved wood	ea	2	\$1,100.00	15	11	\$2,200
3	Asphalt pavement, mill and overlay (10%	sf	34,000	\$2.80	20	2	\$95,200
4	Asphalt pavement, mill and overlay (45%	sf	153,000	\$2.80	20	6	\$428,400
5	Asphalt pavement, mill and overlay (45%	sf	153,000	\$2.80	20	10	\$428,400
6	Asphalt pavement, seal coat, Bridge and Beach	sf	123,000	\$0.29	5	4	\$35,670
7	Asphalt pavement, seal coat, Addy and Errett	sf	80,000	\$0.29	5	1	\$23,200
8	Asphalt pavement, seal coat, remaining Roads	sf	137,000	\$0.29	5	none	\$39,730
9	Asphalt pavement full-depth patching (allowance)	ls	1	\$3,000.00	10	none	\$3,000
10	Pavers, sand set, reset allowance (33% allowance)	sf	690	\$8.00	5	2	\$5,520
11	Pavers, sand set, replace	sf	2,070	\$18.00	40	30	\$37,260

Replacement Costs - Page Subtotal

\$1,102,380

## **COMMENTS**

- Item #3: Asphalt pavement, mill and overlay (10% allowance) An estimated 10% of the community's asphalt exhibits alligatoring, or is otherwise a candidate for mill and overlay.
- Item #6: Asphalt pavement, seal coat, Bridge and Beach Roads Recent seal coating was conducted at Bridge Rd and Beachside roads (roughly 123,000 sq ft.) at a cost of \$31,875.
- Item #7: Asphalt pavement, seal coat, Addy and Errett Roads It is understood that Addy and Errett Roads were seal coated in 2019.
- Item #9: Asphalt pavement full-depth patching (allowance) A section of asphalt is damaged at the Evergreen Rd. beach side. The \$3000.00 allowance remains in the Reserve Study every 10 years for any other similar section of asphalt in the community that may also need full-depth repairs in the future.

April 08, 2024

	ITEMS ECTED REPLACEMENTS						Economic Life (yrs) Economic Life (yrs)
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
12	Guard house w/ bathroom, shower stall, fountain	ea	1	\$91,734.00	50	49	\$91,734
13	Guard house, roofing, asphalt shingles	ls	1	\$1,300.00	30	29	\$1,300
14	Guard house, siding and trim, vinyl, standard	sf	396	\$9.00	35	34	\$3,564
15	Guard house, security monitoring, anticipated	ls	1	\$3,000.00	15	15	\$3,000
16	Fence, 6' PTL, shadowbox, budgeted replacements	ls	1	\$33,000.00	20	none	\$33,000
17	Fence, 6' PTL, shadowbox, Short Road N	ft	240	\$37.50	20	5	\$9,000
18	Fence, 6' PTL, stockade, Beach Plum E	ft	600	\$32.00	20	2	\$19,200
19	Fence, 6" PTL, shadowbox, NE end of Pine Side	ft	450	\$37.50	20	10	\$16,875
20	Fence, 6'/3' PTL, shadowbox, Beach Plum Road S	ft	600	\$35.00	20	10	\$21,000
21	Fence, 6' PTL, shadowbox, remaining at Coastal E	ft	1,095	\$37.50	20	7	\$41,063
22	Maintenance shed, wood frame and siding (painted)	sf	56	\$75.00	30	24	\$4,200
23	Pedestrian barrier, PTL wood, and 5 steel posts	ls	1	\$12,500.00	35	23	\$12,500

Replacement Costs - Page Subtotal

\$256,436

#### **COMMENTS**

- Item #16: Fence, 6' PTL, shadowbox, budgeted replacements Anticipated fence replacements in the spring include 675 feet of 6" shadowbox fencing along Coastal Highway, and 100 ft of shadowbox fencing at the west end of Bridge Rd.
- Item #17: Fence, 6' PTL, shadowbox, Short Road N Minor (maintenance) repairs are needed now.
- Item #18: Fence, 6' PTL, stockade, Beach Plum E The stockade fencing is in overall poor condition. Maintenance repairs are due now and replacement should be budgeted in the near future.
- Item #19: Fence, 6" PTL, shadowbox, NE end of Pine Side Note: the fencing at the NE corner of the community is mostly shadowbox fencing, but also includes a section of solid fencing.
- Item #20: Fence, 6'/3' PTL, shadowbox, Beach Plum Road S Note: this shadowbox fencing includes 400' at 6' high, and 100' at 3' high.
- Item #21: Fence, 6' PTL, shadowbox, remaining at Coastal E This entry includes the remaining 6' shadowbox fencing that is not part of the anticipated spring 2024 project.
- Item #23: Pedestrian barrier, PTL wood, and 5 steel posts The wood pedestrian barrier was reportedly installed in 2013 and the yellow steel posts in 2021.

April 08, 2024

	ITE ITEMS ROJECTED REPLACEMENTS				NEL- Normal Economic Life (yrs) REL- Remaining Economic Life (yrs)			
	TEM ITEM # DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)	
2	Culvert Replacement Phase 1: Road 1	ls	1	\$100,000.00	50	1	\$100,000	
2	Culvert Replacement Phase 2: Road 2	ls	1	\$100,000.00	50	3	\$100,000	
2	Culvert Replacement Phase 3: Roads 3, 3.5	ls	1	\$150,000.00	50	5	\$150,000	

Replacement Costs - Page Subtotal \$350,000

# **COMMENTS**

• Item #24: Culvert Replacement Phase 1: Road 1 - [04/04/2024] The Culvert Replacement projects have been added to the Reserve Study to address the ongoing and possibly increasing water drainage issues. Two roads have been addressed in the recent past. Three and a half roads are yet to be addressed, and have therefore been included in this Reserve Study.

\$43,416

	REATION ITEMS				NI REL-	EL- Normal   Remaining	Economic Life (yrs) Economic Life (yrs)
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
0.7					4.5	40	
27	Polaris Ranger, electric	ea	1	\$16,239.00	15	13	\$16,239
28	Golf cart	ea	1	\$11,038.00	15	9	\$11,038
29	Polaris Ranger, gas	ea	1	\$16,139.00	15	14	\$16,139

COMMENTS		

Replacement Costs - Page Subtotal

April 08, 2024

VALU Exclude	ATION EXCLUSIONS						
ITEM	ITEM DESCRIPTION	LINUT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NE	DEI	REPLACEMENT COST (\$)
#	Miscellaneous signage	UNIT	OF UNITS	COST (\$)	NEL	REL	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.

April 08, 2024

LONG	G-LIFE EXCLUSIONS						
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACEMENT COST (\$)
#	Common element electrical services	UNIT	OF UNITS	CO31 (\$)	NEL	NEL	EXCLUDED
	Water piping at Dune Rd.						EXCLUDED
L							

## **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.

April 08, 2024

UNIT Exclude	IMPROVEMENTS EXCLUSIONS d Items					
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL RE	REPLACEMENT EL COST (\$)
	All components of private residences			(1)		EXCLUDED
	All components of associated businesses					EXCLUDED

# **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.

April 08, 2024

TEM ITEM # DESCRIPTION		UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NEL	REL	REPLACE CO
Primary electric fe	eds			5551 (4)		7.22	EXCLUDI
Electric transforme	ers						EXCLUD
Cable TV systems	and structures						EXCLUD
Telephone cables	and structures						EXCLUD
Stormwater mana	gement system						EXCLUD

## **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.

April 08, 2024

Excluded Items  ITEM ITEM DESCRIPTION UNIT NUMBER COST (\$) NEL REL  Cleaning of asphalt pavement  Crack sealing of asphalt pavement  Striping of parking spaces  Landscaping and site grading  Beach access paths	
# ITEM TEM NUMBER REPLACEMENT OF UNITS REPLACEMENT COST (\$) NEL REL  Cleaning of asphalt pavement  Crack sealing of asphalt pavement  Striping of parking spaces  Landscaping and site grading	
Cleaning of asphalt pavement Crack sealing of asphalt pavement Striping of parking spaces Landscaping and site grading	REPLACEMENT COST (\$)
Striping of parking spaces Landscaping and site grading	EXCLUDED
Landscaping and site grading	EXCLUDED
	EXCLUDED
Beach access paths	EXCLUDED
•	EXCLUDED
Mobi-mats and dune fencing	EXCLUDED

## **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.

April 08, 2024

GOVE Exclude	ERNMENT EXCLUSIONS					
ITEM #	ITEM DESCRIPTION		NUMBER OF UNITS	UNIT REPLACEMENT		REPLACEMENT
#	Government, roadways and parking	UNIT	OF UNITS	COST (\$)	NEL	REL COST (\$) EXCLUDED
	Government, stormwater management					EXCLUDED
	·					
<u> </u>						

## **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.

April 08, 2024

# SECTION C - CALENDAR OF PROJECTED ANNUAL REPLACEMENTS

GENERAL STATEMENT. The 29 Projected Replacements in the Middlesex Beach Association 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

- 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.
- 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. We acknowledge that there are instances in which multiple revisions are necessary. However, unnecessary multiple revisions drain our time and manpower resources. Therefore, MillerDodson will exercise its sole discretion as to whether additional charges are incurred.
- 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 replacement 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 MillerDodson 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 MillerDodson 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 and 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.

PROJ	FCIFF	KEPLA	ACEMENTS	5

PROJECTED REPLACEMENTS				
Item	2024 - Study Year	\$	Item 2025 - YEAR 1 \$	
8 9 16	Asphalt pavement, seal coat, remaining Roads Asphalt pavement full-depth patching (allowance) Fence, 6' PTL, shadowbox, budgeted replacements	\$39,730 \$3,000 \$33,000	7 Asphalt pavement, seal coat, Addy and Errett Roads \$23,20 24 Culvert Replacement Phase 1: Road 1 \$100,00	
Total S	Scheduled Replacements	\$75,730	Total Scheduled Replacements \$123,20	
3 10 18	2026 - YEAR 2 Asphalt pavement, mill and overlay (10% allowance) Pavers, sand set, reset allowance (33% allowance) Fence, 6' PTL, stockade, Beach Plum E	\$ \$95,200 \$5,520 \$19,200	Item 2027 - YEAR 3 \$ 25 Culvert Replacement Phase 2: Road 2 \$100,00	
Total S	Scheduled Replacements	\$119,920	Total Scheduled Replacements \$100,00	
Item	2028 - YEAR 4	\$	Item 2029 - YEAR 5 \$	
6	Asphalt pavement, seal coat, Bridge and Beach Roads	\$35,670	8 Asphalt pavement, seal coat, remaining Roads \$39,73 17 Fence, 6' PTL, shadowbox, Short Road N \$9,00 26 Culvert Replacement Phase 3: Roads 3, 3.5 \$150,00	
Total S	Scheduled Replacements	\$35,670	Total Scheduled Replacements \$198,73	
Item	2030 - YEAR 6	\$	Item 2031 - YEAR 7 \$	
4 7	Asphalt pavement, mill and overlay (45% allowance) Asphalt pavement, seal coat, Addy and Errett Roads	\$428,400 \$23,200	10 Pavers, sand set, reset allowance (33% allowance) \$5,52 21 Fence, 6' PTL, shadowbox, remaining at Coastal E \$41,06	
Total S	Scheduled Replacements	\$451,600	Total Scheduled Replacements \$46,58	
Item	2032 - YEAR 8	\$	Item 2033 - YEAR 9 \$ 6 Asphalt pavement, seal coat, Bridge and Beach Roads \$35,67 28 Golf cart \$11,03	
No So	neduled Replacements		Total Scheduled Replacements \$46,70	

PROJECTED REPLACEMENTS	
------------------------	--

1tem 5 8 9 19 20	2034 - YEAR 10  Asphalt pavement, mill and overlay (45% allowance) Asphalt pavement, seal coat, remaining Roads Asphalt pavement full-depth patching (allowance) Fence, 6" PTL, shadowbox, NE end of Pine Side Fence, 6"/3" PTL, shadowbox, Beach Plum Road S	\$ \$428,400 \$39,730 \$3,000 \$16,875 \$21,000	Item 2035 - YEAR 11 2 Community sign, carved wood 7 Asphalt pavement, seal coat, Addy and Errett Roads	\$ \$2,200 \$23,200
Total Sc	cheduled Replacements	\$509,005	Total Scheduled Replacements	\$25,400
Item 10	2036 - YEAR 12 Pavers, sand set, reset allowance (33% allowance)	\$ \$5,520	Item 2037 - YEAR 13 27 Polaris Ranger, electric	\$ \$16,239
Total So	cheduled Replacements	\$5,520	Total Scheduled Replacements	\$16,239
Item 6 29 Total Sc	2038 - YEAR 14 Asphalt pavement, seal coat, Bridge and Beach Roads Polaris Ranger, gas	\$ \$35,670 \$16,139 \$51,809	Item 2039 - YEAR 15  8 Asphalt pavement, seal coat, remaining Roads 15 Guard house, security monitoring, anticipated  Total Scheduled Replacements	\$ \$39,730 \$3,000 \$42,730
Item 7	2040 - YEAR 16 Asphalt pavement, seal coat, Addy and Errett Roads	\$ \$23,200	Item 2041 - YEAR 17 10 Pavers, sand set, reset allowance (33% allowance)	\$ \$5,520
Total So	cheduled Replacements	\$23,200	Total Scheduled Replacements	\$5,520
Item	2042 - YEAR 18 eduled Replacements	\$	Item 2043 - YEAR 19 1 Community signs, painted metal 6 Asphalt pavement, seal coat, Bridge and Beach Roads  Total Scheduled Replacements	\$ \$3,800 \$35,670 \$39,470

PROJECTED REPLACEMENTS	
------------------------	--

PROJECTED REPLACEMENTS				
Item	2044 - YEAR 20	\$	Item 2045 - YEAR 21	\$
8 9 16	Asphalt pavement, seal coat, remaining Roads Asphalt pavement full-depth patching (allowance) Fence, 6' PTL, shadowbox, budgeted replacements	\$39,730 \$3,000 \$33,000	7 Asphalt pavement, seal coat, Addy and Errett Roads	\$23,200
Total S	Scheduled Replacements	\$75,730	Total Scheduled Replacements	\$23,200
3 10 18	2046 - YEAR 22 Asphalt pavement, mill and overlay (10% allowance) Pavers, sand set, reset allowance (33% allowance) Fence, 6' PTL, stockade, Beach Plum E	\$ \$95,200 \$5,520 \$19,200	Item 2047 - YEAR 23 23 Pedestrian barrier, PTL wood, and 5 steel posts	\$ \$12,500
Total S	Scheduled Replacements	\$119,920	Total Scheduled Replacements	\$12,500
Item	2048 - YEAR 24	\$	Item 2049 - YEAR 25	\$
6 22 28	Asphalt pavement, seal coat, Bridge and Beach Roads Maintenance shed, wood frame and siding (painted) Golf cart	\$35,670 \$4,200 \$11,038	8 Asphalt pavement, seal coat, remaining Roads 17 Fence, 6' PTL, shadowbox, Short Road N	\$39,730 \$9,000
Total S	Scheduled Replacements	\$50,908	Total Scheduled Replacements	\$48,730
Item	2050 - YEAR 26	\$	Item 2051 - YEAR 27	\$
2 4 7	Community sign, carved wood Asphalt pavement, mill and overlay (45% allowance) Asphalt pavement, seal coat, Addy and Errett Roads	\$2,200 \$428,400 \$23,200	10 Pavers, sand set, reset allowance (33% allowance) 21 Fence, 6' PTL, shadowbox, remaining at Coastal E	\$5,520 \$41,063
Total S	Scheduled Replacements	\$453,800	Total Scheduled Replacements	\$46,583
Item	2052 - YEAR 28	\$	Item 2053 - YEAR 29	\$
27	Polaris Ranger, electric Scheduled Replacements	\$16,239 \$16,239	6 Asphalt pavement, seal coat, Bridge and Beach Roads 13 Guard house, roofing, asphalt shingles 29 Polaris Ranger, gas  Total Scheduled Replacements	\$35,670 \$1,300 \$16,139 \$53,109
าบเลา	policulieu (/epiacement)	क् ।∪,∠ऽध	rotal outeduled treplacements	φυυ, 1U9

Item	2054 - YEAR 30	\$	Item 2055 - YEAR 31	\$
5	Asphalt pavement, mill and overlay (45% allowance)	\$428,400	7 Asphalt pavement, seal coat, Addy and Errett Roads	\$23,200
8 9	Asphalt pavement, seal coat, remaining Roads	\$39,730		
11	Asphalt pavement full-depth patching (allowance) Pavers, sand set, replace	\$3,000 \$37,260		
15	Guard house, security monitoring, anticipated	\$3,000		
19	Fence, 6" PTL, shadowbox, NE end of Pine Side	\$16,875		
20	Fence, 6'/3' PTL, shadowbox, Beach Plum Road S	\$21,000		
Total S	cheduled Replacements	\$549,265	Total Scheduled Replacements	\$23,200
Item	2056 - YEAR 32	\$	Item 2057 - YEAR 33	\$
10	Pavers, sand set, reset allowance (33% allowance)	\$5,520		
Total S	cheduled Replacements	\$5,520	No Scheduled Replacements	
Item	2058 - YEAR 34	\$	Item 2059 - YEAR 35	\$
6	Asphalt pavement, seal coat, Bridge and Beach Roads	\$35,670	8 Asphalt pavement, seal coat, remaining Roads	\$39,730
14	Guard house, siding and trim, vinyl, standard	\$3,564		
Total S	cheduled Replacements	\$39,234	Total Scheduled Replacements	\$39,730
Item 7	2060 - YEAR 36 Asphalt pavement, seal coat, Addy and Errett Roads	\$ \$23,200	Item 2061 - YEAR 37  10 Pavers, sand set, reset allowance (33% allowance)	\$ \$5,520
'	Asphalt pavement, seal coat, Addy and Effett Noads	φ23,200	ravers, sailu set, reset allowance (33 % allowance)	φ5,520
Total S	cheduled Replacements	¢22 200	Total Schodulad Bankacamenta	¢E E20
างเลา S	опечиеч перисетенть	\$23,200	Total Scheduled Replacements	\$5,520
Item	2062 - YEAR 38	\$	Item 2063 - YEAR 39	\$
			1 Community signs, painted metal	\$3,800
			6 Asphalt pavement, seal coat, Bridge and Beach Roads 28 Golf cart	\$35,670 \$11,038
			20 Guil Gait	φιι,υσο
No Sch	neduled Replacements		Total Scheduled Replacements	\$50,508

## INTENTIONALLY LEFT BLANK

# SECTION D - CONDITION ASSESSMENT

**General Comments.** MillerDodson Associates conducted a Reserve Study at Middlesex Beach Association in January 2024. Middlesex Beach Association appears to be generally in good condition for a homeowner's association. 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.

**IMPORTANT NOTE**: This Condition Assessment is based upon visual and apparent conditions of the common elements of the community which were observed by the Reserve Analyst at the time of the site visit. This Condition Assessment does not constitute, nor is it a substitute for, a professional Structural Evaluation of the buildings, amenities, or systems. MillerDodson strongly recommends that the Association retain the services of a Structural Engineer to conduct thorough and periodic evaluations of the buildings, balconies, and any other structural components of the buildings and amenities of the Association.

#### **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.

(Continued on next page)

April 08, 2024

## SITE ITEMS

**Signage.** The Association maintains two signs in the Coastal Highway medians as well as two entry signs at the beachside. The median signs appear to be painted metal and are in excellent condition. The beachside signs appear to be sand-blasted wood signs on wood-framed posts and plywood which appear to be in good condition.

We recommend replacement every 10 to 15 years to keep the signs fresh and appealing.

In addition to these signs, the Association is responsible for community signage, including stop, speed, street, and other major signs. These have been and will continue to be repaired or replaced using other funds.









Asphalt Pavement. The Association is responsible for the roadways and parking areas within the community including the Commercial sections between Coastal Highway and Beach Plum Rd. The Town of South Bethany maintains the Pine Side and Commercial sections of Evergreen Rd. (the east side of Evergreen Rd., however, is Association property). In general, the Association's asphalt pavements appear to be in good condition (despite their apparent ages), with some alligatoring present at the west ends of the community roads, and deterioration at the cul-de-sac of Evergreen Rd. (east). The age(s) of the asphalt components is unclear, but the overall good condition suggests quality installations. In addition, light vehicle traffic and virtually no through traffic (with the exception of the Commercial sections), have contributed to the overall longevity. For the purposes of this Reserve Study, we have divided the asphalt mill and overlay of the community roads and parking areas into three phases to reflect their varying conditions. In addition, we have modeled for seal coating in three general phases. We have also modeled for full-depth repair to the section of Evergreen Rd. (beach side) that is deteriorated.

The defects noted include the following:

• **Open Cracks.** There are multiple locations where open cracks allow water to penetrate the asphalt base and the bearing soils beneath. Over time, water will erode the base and accelerate the deterioration of the asphalt

April 08, 2024

pavement. Remove the damaged areas and replace defective materials if cracks extend to the base and bearing materials. As a part of normal maintenance, clean and fill all other cracks.

- Alligatoring. There are multiple locations where the asphalt has developed a cracking pattern known as
  alligatoring. The primary cause of alligatoring is an unstable base. Once these cracks extend through the asphalt,
  they will allow water to penetrate the base, accelerating the rate of deterioration and eventually leading to
  potholes. The only solution is to remove the defective asphalt, compact the base, and install new base materials and
  asphalt.
- **Minor Heaving.** This is damage to pavement surfaces caused by tree roots. Repairing these areas requires removing the asphalt and the tree roots, then replenishing and re-compacting the base material and resurfacing the asphalt. Root trimming can also be an effective way to control this defect.
- **Edge Cracking.** Asphalt pavement sections have developed cracks along the pavement edges due to improper confinement. Installation of curbs or installation of a compacted gravel shoulder at the time of an overlay project can address this defect.













nvoice # 1204

The Association maintains an inventory of asphalt pavement along the following streets and areas:

Street Name	sf
Short Rd.	39060
Bayberry Rd.	48184
Errett Rd.	50580
Bridge Rd.	52100
Addy Rd.	53440
Evergreen Rd.	8600
Beach Plum Rd.	36120
Dune Rd.	33660













April 08, 2024

A more detailed summary of pavement distress can be found at <a href="http://www.asphaltinstitute.org/engineering/maintenance-and-rehabilitation/pavement-distress-summary/">http://www.asphaltinstitute.org/engineering/maintenance-and-rehabilitation/pavement-distress-summary/</a>.

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

To maintain the condition of the pavement throughout the community and ensure the longest life of the asphalt, we recommend the Association adopts 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 Reserves will not fund it.
- 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 by Reserves. Areas of extensive cracking or deterioration that cannot be made watertight should be cut out and patched.
- **Seal Coating.** The asphalt should be seal-coated every five to seven years. For this maintenance activity to be effective in extending the life of the asphalt, cleaning, and crack repair should be performed first.

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

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

**Unit Pavers.** Unit pavers provide a solid, decorative, and renewable surface that is part of the community between the Coastal Highway at the gates to the east side roads, as well as, at the beach access paths and guard house. The unit pavers appear to be in overall good condition, though ongoing maintenance is required to remove eroding sand, which also limited our view of the pavers. The pavers at the Evergreen Rd beach access area are due for resetting. We have modeled for resetting of 33% of the pavers every 5 years and for replacement of the pavers every 40 years. The areas of defects are consistent with the age of the installation. BE AWARE THAT THE BEACH ACCESS PATHS AND DUNE CROSSING COMPONENTS (OTHER THAN PAVERS), WHICH INCLUDE DUNE FENCING, MOBI-MATS, AND WOODEN PATH BORDERS, ARE NOT IN THE COMPONENT LIST OF THIS RESERVE STUDY. IT IS UNDERSTOOD THAT THESE ARE MAINTAINED WITH OTHER FUNDS.







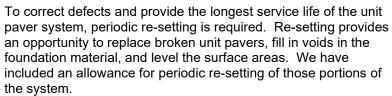




The defects noted include the following:

- Settlement. We identified areas where pavers have settled due to a failure of the base under the pavers. This settlement has resulted in an uneven surface that can pose a trip hazard.
- Stressed perimeter border. We observed areas of the perimeter border that have failed leading to the separation of the unit pavers. This defect is hazardous and can cause additional defects to develop.
- Unit paver system installed on a slope. Unit pavers installed on a dramatic slope, or elevation change will gradually slide toward the bottom creating a hazardous situation. Areas with a dramatic elevation change should be redesigned to include additional tiers.





Unit pavers have a service life of 30 years or more if the system is maintained on a consistent periodic basis. Eventually, the system will require a large-scale replacement, identical paver units may not be available, and it is recommended that the unit paver system be replaced.

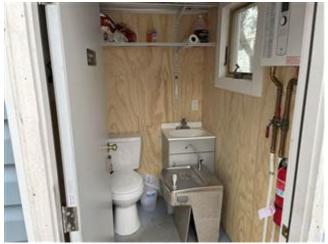




April 08, 2024

**Guard House.** The guard house was replaced in 2023 at a reported cost of \$91,734.50. The guard house features a narrow office area and a rear bathroom. In addition, there is plumbing for a drinking fountain and there is a vinyl-fenced enclosed shower area. The guard house is in excellent condition, though there are some finishing touches that are yet to be completed, including the final coating and painting of the interior. The drinking fountain is removed each winter and reinstalled in the spring.









**Guard House Monitoring**. The Association is in the process of installing two security cameras and a DVR at the guard house.



April 08, 2024

**Fencing.** The Association maintains various fences in various locations. The fencing includes primarily 6' shadow fencing, but there are also areas with stockade fencing, solid fencing, and short sections of 3' stockade fencing. The fences are in various conditions from poor to good. Around 775 ft of shadowbox fencing is scheduled for replacement (675 ft at the east side of Ocean Highway, and 100 ft at the west end of Bridge Rd.). Other fencing will be modeled into the Reserve Study according to expected remaining life and condition. Fencing systems have a large number of configurations and finishes that can usually be repaired as a maintenance activity by replacing individual components as they become damaged or weathered.

## **Shadowbox Fencing:**

















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

# Shadowbox fencing at Short Rd N:







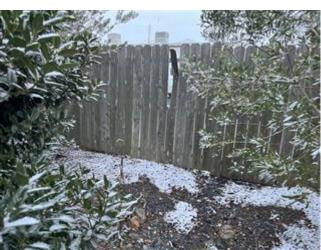
(Continued on next page)

# Stockade fencing at the east side of Beach Plum Rd:









Shadowbox with solid fence section at NW corner of community:



(Continued on next page)

April 08, 2024

**Sheds.** The Association owns a wooden shed as well as an old shipping container that are used for storage purposes. The shed is entered into the Reserve Study and appears to be in good condition. NOTE: The shipping container is not listed as an MDA component item in this Reserve Study.







We have assumed that the components of the wooden shed's exterior will be replaced as needed (using other funds), and when a complete replacement is required, it will be replaced with one of a similar type and size.

**Pedestrian Barrier.** The pedestrian barrier is located on Bridge Rd, and the wooden portion was installed in 2013. Five yellow posts were installed in 2021. The barrier and posts appear to be in good condition. We have modeled for both wooden and steel members to be replaced in 23 years.









**Culvert/drainage project**. The drainage in the community has been challenged, in particular by weather changes/events in the recent past. The Board has recommended replacement of the culverts in the community as needed. Two of the five and a half roads (the half represents only one side of Evergreen Rd. that is part of MBA) have already been addressed. Typical replacement of the culverts in the recent past have cost @\$3000.00 to \$4000.00 per driveway. Replacements in three phases (Road 1, Road 2 and Roads 3/3.5) have been included in this Reserve Study starting next year and with two-year intervals.

## **RECREATION ITEMS**

**Vehicles.** The Association operates three vehicles including an electric Polaris Ranger (2022), a gas Polaris Ranger (2023), and a golf cart (2018). The golf cart could not be accessed but is reportedly in good condition. The Polaris Rangers are both relatively new and appear to be in excellent condition.







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 and limited common elements of the property to ascertain their remaining useful life and replacement cost. 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** 

# INTENTIONALLY LEFT BLANK

#### 1. COMMON INTEREST DEVELOPMENTS - AN OVERVIEW

Over the past 40 years, the responsibility for many services, facilities, and infrastructure around our homes has shifted from the local government to Community Associations. Thirty years ago, a typical new townhouse 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 approximately 500 Community Associations in the United States. According to the 1990 U.S. Census, there were roughly 130,000 Community Associations. The Community Associations Institute (CAI), a national trade association, estimated in 2020 that there were more than 350,000 communities with over 75 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 issues. Although Community Associations have succeeded in solving many short-term issues, many Associations still fail to properly plan for the significant expenses of replacing community facilities and infrastructure components. When inadequate Replacement Reserve funding results in less than timely replacements of failing components, homeowners are invariably exposed to the burden of special assessments, major increases in Association fees, and often 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 major repair or replacement, a general view of the physical condition of these components, and an effective financial plan to fund projected periodic replacements or major repairs. The Replacement Reserve Study consists of the following:

**Replacement Reserve Study Introduction**. The introduction provides a description of the property, an Executive Summary of the Funding Recommendations, Level of Reserve Study service, and a statement of the Purpose of the Replacement Reserve Study. It also lists documents and site evaluations upon which the Replacement Reserve Study is based and provides the Credentials of the Reserve Analyst.

**Section A Replacement Reserve Analysis.** Many components that are owned by the Association have a limited life and require periodic replacement. Therefore, it is essential that the Association have a financial plan that provides funding for the timely replacement of these components in order to protect the safety, appearance, and ultimately, the property value of the homes in the community. In conformance with National Reserve Study Standards, a Replacement Reserve Analysis evaluates the current funding of Replacement Reserves as reported by the Association and recommends annual funding of Replacement Reserves using the Threshold Cash Flow Method. See the definition below.

**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. Replacement Reserve Inventory includes estimates of the Normal Economic Life (NEL) and the Remaining Economic Life (REL) for those components whose replacement is scheduled for funding from Replacement Reserves.

The Replacement Reserve Inventory also provides information about those components that are excluded from the Replacement Reserve Inventory and whose replacement is not 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.** The observed condition of the major items listed in the Replacement Reserve Inventory is discussed in more detail. The Condition Assessment includes a narrative and photographs that document conditions at the property observed at the time of 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.).

#### 3. METHODS OF ANALYSIS

The Replacement Reserve industry generally recognizes two different methods of accounting for Replacement Reserve Analysis, the Cash Flow Method. Due to the difference in accounting methodologies, these methods lead to different calculated values for the Recommended Annual Funding to the Reserves. A brief description is included below:

Cash Flow Threshold Method. This Reserve Study uses the Threshold Cash Flow Method, sometimes referred to as the "Pooling Method." It calculates the minimum constant annual funding to reserves (Minimum Annual Deposit) required to meet projected expenditures without allowing total reserves on hand to fall below the predetermined Minimum Balance, or Threshold, in any year.

### 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. The Reserve Analyst must 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 parties responsible for maintaining the community after acceptance of our proposal. Upon submission of the Initial Study, the Study should be reviewed by the Board of Directors and the individuals responsible for maintaining the community. We depend upon the Association for correct information, documentation, and drawings. We also look to the Association representative to help us fashion the Reserve Study so that it reflects what the community hopes to accomplish in the coming years.

**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 the cost of regular 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.

Cash Flow Analysis. See the Cash Flow Threshold Method, above.

**Contingency.** An allowance for unexpected requirements. The "Threshold" used in the Cash Flow Method is a predetermined minimum balance that serves the same purpose as a "contingency." However, IRS Guidelines do not allow for a "contingency" line item in the inventory. Therefore, it is built into the mathematical model as a "Threshold."

**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, 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.

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

**Minimum Balance.** Otherwise referred to as the Threshold, this amount is used in the Cash Flow Threshold Method only. Normally derived using the average annual expenditure over the study period, this is the minimum amount held in reserves in the Peak Year.

Overview, Standard Terms, and Definitions

**National Reserve Study Standards.** A set of Standards developed by the Community Associations Institute in 1995 (and updated in 2017) which establishes the accepted methods of Reserve Calculation and stipulates what data must be included in the Reserve Study for each component listed in the inventory. These Standards can be found at CAlonline.org.

**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.)

**Number of Years of the Study.** The number 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. The Reserve Study must cover a minimum of 20 years to comply with the National Reserve Study Standards. However, your study covers a 40-year period.

**Peak Year.** In the Cash Flow Threshold Method, a year in which the reserves on hand are projected to fall to the established threshold level. See Minimum Balance, above.

**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.

**Replacement Reserve Study.** An analysis of all of the components of the common property of a Community Association for which 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, Normal Economic Life, and Remaining Economic Life. The objective of the study is to calculate a Recommended Annual Funding for 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 Is lump sum sy square yard ft or If linear 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's 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?



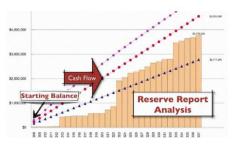
https://youtu.be/W8CDLwRIv68

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



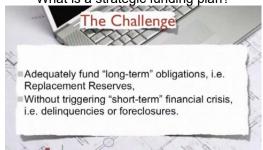
https://youtu.be/diZfM1IyJYU

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